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# INTERFACE, Inc.

## AN INQUIRY INTO WHAT LIES BENEATH THE TIP OF THE ICEBERG

Business organizational culture  
to innovate for a better world

Aansan Yeh/ 3035360  
Utrecht University  
Interface  
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Supervisor: Robert Fletcher  
2<sup>nd</sup> Reader: Guus van Westen  
MSc Sustainable Development/International Development Studies

## EXECUTIVE SUMMARY

With the advance of sustainable development thinking since the first publication of the Brundtland report in 1987 and due to current global challenges amongst others around food, climate change, water and non-renewable resources, corporate business has become increasingly pressurized to operate more socially and environmentally responsible. This is partly due to the fact that since the rise of neoliberalism in the 70s and 80s, companies have played a major role within global issues around worldwide environmental damage, the widening gap between rich and poor and the exploitation of local labour markets. Even though the private sector can be seen as part of the problem, business organizations can equally be seen as a powerful means to foster a more sustainable world.

As such an important scientific as well as practical question is how the private business sector can transform itself towards more socially just and environmentally responsible business. Despite the fact that over the course of the past three decades, various business strategies have indeed emerged such as philanthropy, Corporate Social Responsibility and Bottom of the Pyramid approaches, it is questionable to what extent business' organizational culture influences and can actually contribute to corporate innovation (processes) for sustainability in terms of external socio-environmental needs and internal human needs among employees. Moreover even if a corporate enterprise aims to operate more sustainably for instance through implementing strict environmental measures, it does not per definition mean that the company will also include important international development concerns. Hence another question is what is required for corporate sustainability innovation to indeed include such concerns.

As such this research examines the business organizational culture (BOC) of a specific case study of Interface, Inc. and how this influences their innovation processes for sustainability. Interface is a leading global manufacturer and supplier of carpet tiles and especially known for its bold ambition to achieve zero environmental impact in 2020 and to become a restorative company with a positive impact. A specific focus is given to the subjective experiences and views of employees themselves. Participant observation, shadowing and 40 qualitative semi-structured open interviews were conducted with the help of 7 qualitative indicators. These indicators highlighted particular BOC conditions of the case study as well as the functioning of innovation processes including experienced organizational challenges. Valuable insights have thus been generated around what kind of BOC conditions can foster sustainability innovation and what this means for private sector sustainability in general.

The main results indicate that 1) the espoused vision and mission of the company are rather well integrated into their BOC, 2) particular BOC conditions of amongst others shared values and collective beliefs, communication levels, the level of formal centralization and autonomy all strongly impact innovation processes and are equally related to various challenges within the company, 3) rather than merely formulating environmental objectives, strategic alignment of social and environmental issues into core business strategy is crucial for a company to include international development issues. Most importantly for general private sector sustainability this means that not only investing in certain BOC conditions is important, but also strategically aligning their socio-environmental goals is needed to truly innovate for a more just and sustainable world.

## ACKNOWLEDGEMENT

With honor I present to you my MSc thesis on the important interrelations between business organizational culture and corporate sustainability innovation. This thesis is the result of a 6 months period of fieldwork and data analysis carried out at the European head office of Interface in Scherpenzeel, The Netherlands from the 30<sup>th</sup> of May to the 11<sup>th</sup> of August 2015. This thesis is part of the combined Sustainable and International Development research masters program of Utrecht University, The Netherlands.

I hope this research can contribute to broadening understanding on sustainable business change within the private sector, especially in terms of the influence and importance of business' organizational culture to foster innovation for sustainability. This thesis also provides insight on the related issue of how to include global issues of international development into corporate sustainability efforts. Principal to this analysis are the viewpoints and experiences of employees themselves.

I would like to express gratitude to several people who have supported me in realizing this research and thesis. I would like to thank my supervisor dr. Robert Fletcher for his time and willingness to provide me with advice and guidance and my second reader Guus van Westen who is prepared to evaluate my work. I would also like to express gratitude to Interface's manager of sustainable development and her willingness, time and effort to receive and assist me as a student researcher. She has given me the opportunity to conduct research at Interface, Inc. which otherwise would not have been feasible. I would also like to thank her for introducing me to colleagues, for inviting me to a number of Interface's events and for sharing information and resources freely.

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With gratitude,

*Aansan Yeh*  
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## TABLE OF CONTENT

<b>1 INTRODUCTION</b> .....	4
§ 1.1 Problem identification and research question.....	4
§ 1.2 Structure of the thesis.....	4
<b>2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK OF ANALYSIS</b> .....	6
§ 2.1 The societal and academic debate around responsible & sustainable business.....	6
§ 2.2 Research implications and main aims for scientific contribution.....	12
§ 2.3 Theoretical framework of analysis: the multi-level cultural systems framework.....	12
§ 2.4 Theoretical framework of analysis: six components of innovatoin, the institutional innovation model and related tables.....	17
<b>3 CONTEXTUAL BACKGROUND</b> .....	24
§ 3.1 Origins of Interface, Inc.....	24
§ 3.2 Formal vision and misson of the company.....	24
§ 3.3 A short history of the shift towards sustainability.....	25
<b>4 RESEARCH DESIGN AND METHODOLOGY</b> .....	33
§ 4.1 Research objectives.....	33
§ 4.2 Research questions.....	33
§ 4.3 Methodology.....	33
§ 4.4 Data collections methods and sampling.....	35
§ 4.5 Limitations.....	38
<b>5 KEY RESEARCH FINDINGS AND DESCRIPTIVE ANALYSIS</b> .....	40
§ 5.1 Mission Zero within company and related sustainability matters.....	41
§ 5.2 Characteristics of Interface's BOC: social relations, formal leadership and feedback.....	54
§ 5.3 Characteristics of Interface's BOC: communication and collaboratoin.....	58
§ 5.4 Characteristics of Interface's BOC: employee fulfillment, age division and entrepreneurship.....	61
<b>6 KEY RESEARCH FINDINGS AND DESCRIPTIVE ANALYSIS II</b> .....	64
§ 6.1 Applying the six components of innovation.....	64
§ 6.2 People and characteristics of an innovation culture.....	73
§ 6.3 Final remarks on sustainability & human sustainability.....	81
<b>7 THEORETICAL DISCUSSION</b> .....	84
§ 7.1 The analysis of BOC based on the multi-level cultural systems framework.....	84
§ 7.2 The level of integration of the formal vision and mission into Interface's BOC & ratings on a culture of innovation.....	98
§ 7.3 Interface's BOC in relation to innovation (processes) for sustainability & stages of technical innovation.....	102
<b>8 CONCLUSION</b> .....	112
§ 8.1 Summary of main findings.....	112
§ 8.2 General recommendation for private sector sustainability.....	114
<b>Annex I: Overview of respondents, function and department</b> .....	118
<b>Annex II: Topic list semi-structured interviews</b> .....	120
<b>BIBLIOGRAPHY</b> .....	121

## CHAPTER 1 | INTRODUCTION

### § 1.1. PROBLEM IDENTIFICATION AND RESEARCH QUESTION

During the past 35 years, the neoliberal era has left significant marks on the global economic organization. Increasing liberalization and deregulation over the past decades have not been without negative consequences amongst others in terms of local and global environmental impact, severe resource exploitation and issues related to global inequality and social injustice. These issues cut across various scientific disciplines and are particularly important within the international development field. Such issues highlight the need for a clear scientific as well as practical understanding of how to foster socially just and environmentally responsible connections between the private sector and their global stakeholders. Besides current pressing challenges around global food provision, energy and resources, have also increased the need for companies to internalize social and environmental costs and to look for avenues to operate more sustainably.

However one of the most daunting questions is how corporate enterprises can actually transform themselves into sustainable business organizations. Despite the fact that various business strategies such as corporate social responsibility have emerged, there are still significant knowledge gaps on how to foster sustainability innovation within corporate environments. Arguably the private sector would have to develop an organizational culture that is fundamentally different from 'doing-business-as-usual' and which instead integrates social and environmental concerns into their core business operations (Linnenluecke and Griffith, 2010). Yet it is questionable to what extent business' organizational culture actually influences corporate sustainability innovation in the first place and how the former could contribute to the latter.

As such with this research I aim to develop a thorough understanding on how organizational culture influences innovation processes for sustainability. In order to do so I will present a research case study on Interface, Inc. that has been carried out during a 6 months period between the 30<sup>th</sup> of May to the 11<sup>th</sup> of August 2015. Interface is a global manufacturer and supplier of carpet tiles and is widely known for its so-called Mission Zero (i.e.: zero environmental impact) and major achievements in (physical-environmental) sustainability. Research objectives are to understand Interface's formal vision and to what extent this is integrated into their BOC; and how this relates to the company's innovation processes. Based on this I have formulated the following main research question for my case study of Interface:

*To what extent is Interface's espoused vision and mission on sustainability integrated into their business' organizational culture (BOC) and how is this related to their innovation processes for sustainability in terms of the environment and (internal) human needs?*

Research into business' organizational culture is also relevant, because culture tends to have significant influence in terms of values and collective beliefs that inevitably impact organizational performance as well as innovation processes within the company. Finally, it must be stressed that even if a corporate firm aims to become more sustainable and strives to reduce its environmental impact, this does not necessarily mean that the company will include international development concerns. Hence I will also research to what extent it can be argued that the sustainability mission of my case study can be related to and actually incorporates international development issues such as poverty reduction and local environmental concerns.

Ultimately the aim of this research is to develop a recommendation on what conditions within an organizational culture can foster innovation processes for sustainability. Even though such recommendation is not easily applicable to the vast diversity of companies that exist, it is still relevant in terms of the current societal need of developing business organizations that actively contribute to a more sustainable and socially just world.

### § 1.2. STRUCTURE OF THE THESIS

Chapter 2 gives a literature review of the main issues within the current societal and academic debate around the impact of corporations on broader societal and environmental needs since the advance of neoliberalism in the 1970s and 80s, the rise of the need for sustainable development and what role the private business sector can play therein in terms of corporate sustainability. I will consequently specify several strategies that the private sector has developed during the past 20 to 30 years to foster more environmentally and socially responsible business. I will end my literature review with an account on organizational culture. Consequently my main research implications as well as the theoretical framework will be discussed. The theoretical framework is on the one hand based upon insights from the field of organization theory, complex systems theory and learning organizations. On the other hand, I have also included insights from amongst others corporate sustainability

innovation and creating shared value (CSV) theory within my theoretical framework. Chapter 3 presents a contextual background that contains an overview of the origins of Interface, the formal vision and mission of the company and a short history of their sustainability journey so far. Chapter 4 provides an overview of the research design and methodology with amongst others research questions, objectives and sampling/data collection methods.

Chapter 5 is the first chapter that presents the main research results in terms of Interface's business' organizational culture such as employee engagement levels, both with regards to individual and departmental involvement. Moreover it includes an overview of Interface's business philosophy. Other issues include more specific characteristics that are part of my case study's organizational culture. Chapter 6 discusses results around Interface's innovation processes and the characteristics of the company's innovation culture. Chapter 7 presents a more analytical, theoretical discussion of the research results based upon my theoretical framework. In chapter 8, a conclusion is given as well as a final recommendation on sustainable business change.

## CHAPTER 2 | LITERATURE REVIEW AND THEORETICAL FRAMEWORK OF ANALYSIS

### § 2.1. THE SOCIETAL AND ACADEMIC DEBATE AROUND RESPONSIBLE & SUSTAINABLE BUSINESS AND RELATED ISSUES

#### 2.1.1 Neoliberalism and social-environmental issues of international development

The contemporary private business sector and its operations have to a large extent been influenced by the neoliberal era. Neoliberalism approximately started during the 1970s and 1980s and has partly led to a focus on short-term maximization of profit, shifting to increasingly lower wage countries and seeing social interests and needs as increasing costs and thereby decreasing profit and competitive advantage<sup>1</sup>. Consequently, significant social and customer needs have been overlooked and broader influences on the company's long-term viability, such as the depletion of non-renewable resources and the local exploitation of communities have been ignored (Porter and Kramer, 2011). Moreover reducing environmental impact has been often been regarded as an additional burden which would generate administrative and production costs. Concerns that have been expressed are: the required investment for new equipment and processes, the risk of consumers being unwilling to pay higher prices for eco-products and developing countries gaining competitive advantage as they tend to face less pressure to operate environmentally responsible (Nidumolu et al., 2009). Hence socio-environmental sustainability has often been seen as costly and as opposing to profit and competitive advantage. Consequently, companies have generally displayed reactive environmental responses, rather than strategies that proactively address social and environmental issues (Munch Andersen, 2002). Nevertheless, business organizations have significant socioeconomic influence. They play an important role in either accelerating or prohibiting the transition towards a truly sustainable society. The following quote illustrates this:

*'Corporations are instruments of social purpose, formed within society to accomplish useful social objectives. If they do this, they have a right to a continued existence, a license to use resources and a responsibility to produce socially beneficial products and services. However, if they debase human life, act with contempt for the community of which they are part, plunder and pollute the planet and produce 'bads' as well as 'goods', they forfeit their right to exist. They become unsustainable because they are unsustaining'* (Benn et al., 2014, p5).

Bebbington also argues that the detrimental effects of neoliberalism on environmental wellbeing and the lack of a socially just development of people around the world, have led to a critical questioning of the neoliberal era within the international development literature (2000). It is indeed questionable what role the private sector can or even should play within international development goals of for instance economic poverty alleviation, women empowerment and broader community development, human rights and services such as healthcare and sanitation within developing countries. This is ultimately a question of how corporates should relate to their global stakeholders who amongst others include worldwide producers, suppliers of raw materials and frequently the surrounding communities (Barney, 2003).

Despite the general adverse neoliberal tendencies as described above, during the 1970s the private sector at the same time already started to relate itself in various ways to its stakeholders such as through philanthropy and charity to community needs. These were often still highly controlled by companies and frequently created dependency of such communities. The impact of the oil crises and growing international competition in the 1970s left corporate firms with the need to increase their efficiency and similarly a greater emphasis was placed on measurable results of such philanthropic activities (Barney, 2003). As mentioned in the 1980s and 1990s global markets were increasingly liberalized amongst others through free trade, deregulation measures and privatization. The adverse societal effects of liberalization ultimately caused civil society to be increasingly critical and even fostered an anti-globalization movement that demanded corporates to address issues such as labour exploitation, environmental havoc and the widening gap between the world's rich and poor (Kolk and Tulder, 2010).

#### 2.1.2 The private business sector and the need for corporate sustainability

Moreover in 1987 the Brundtland report had brought the concept of sustainable development under the attention of the international policy arena. The report defined sustainable development as *'meeting the needs of the present, without compromising the ability of future generations to meet their own needs'* (WCED, 1987). This report also had a major influence on the agenda of Rio Earth Summit in 1992. After this summit and during the current neoliberal era, pressing social and environmental issues around food, energy, water and climate

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<sup>1</sup> Competitive advantage means: business operations and activities that result in lower production costs or higher product prices (Porter and Kramer, 2011)

change became increasingly highlighted. As a consequence since the last decade of the 21<sup>st</sup> century, the notions of sustainable development and sustainability have also become increasingly mainstreamed within academia, government institutions, business, media and civil society. Specifically within contemporary western societies around the world, sustainable development has become a guiding principle that includes systems thinking, complexity science and an integrated worldview (De Vries, 2013). More recently the Post-2015 Development Agenda has placed sustainable development at the core to 'transform economies and to eradicate poverty' (UN, 2013). The west is looking for new pathways of how to reorganize towards sustainable societies with a growing trend among citizens for social enterprises, 'green products' and alternative lifestyles, bottom up and open source initiatives as well as circular economies. Hence sustainable development seems to be relevant more than ever in the 21<sup>st</sup> century.

This societal background and the continuous academic as well as sociopolitical debate have created a growing need within the business world for sustainability. Yet even though the private business sector possesses the entrepreneurial skills, the capital and to a large degree the powerful, widespread influence to contribute significantly to sustainable development, it must be acknowledged that a sustainable world can neither be achieved by one business organization nor by the private business sector as such. Instead it is a systemic concept that will require a collective endeavour across various national governments, civil society, business, consumer and educational communities (Holliday et al., 2002).

Nevertheless there are several arguments why the private sector is indeed crucial for sustainable development efforts. Firstly, it can be argued that sustainable development is essentially a concept that indicates realizing economic growth that is at the same time socially and environmentally sustainable to ensure that future generations can also meet their needs (Kolk and Tulder, 2010). Bebbington similarly argues that sustainable development is first and foremost occupied with the question of: 'What kind of economic organization would lead to everyone's current and future needs being met in an ecologically sustainable and socially just manner?' (Bebbington, p20, 200). Hence sustainable development is primarily a question of economic organization and as such the private business sector becomes an important arena player (Bebbington, 2000).

Secondly, the concept of sustainable development also highlights the dependency of business organizations on environmental and human resources. It indicates that it is actually in the best interest of corporations themselves to start operating more sustainably if they want to survive in the long run and increase their resilience. This implies that sustainable development is actually highly relevant for business organizations, the more because the concept is similar to the balancing acts of the private sector in terms of short and long term interests. It is likely that for this reason, the private sector was eager to be included within the Rio Earth Summit of 1992. This was not only to protect their own interests, but also because the private business sector realized that the concept involved issues that were important to business organizations such as technological development, institutional frameworks and natural resource usage (Holliday et al., 2002). Finally with the increasing liberalization of markets in the 80s and 90s, the influence of governments on the global social and political economy diminished significantly compared to the power of multinational firms. As such it can be argued that the private sector plays to a large extent an important role in advancing sustainable development in terms of realizing worldwide economic growth that is socially just and environmentally responsible despite the fact that ultimately sustainable development requires the collective effort of all stakeholders within the global economy.

Currently the nature of competitiveness is gradually transformed through the 'greening' of industries, markets and lifestyles. In fact since the past few years, sustainability is increasingly seen as the main driver of corporate innovation. For instance Nidumolu et al. argue that 'smart companies now treat sustainability as innovation's new frontier' (2009). This is because sustainability innovation has numerous advantages ranging from a reduction in the input of resources and more efficient operations to the creation of new business opportunities and less dependency on external resources as well as a better reputation (Nidumolu et al., 2009). I will amongst others research to what extent these claims are applicable to my particular case study of Interface.

However it must be acknowledged that if a company aims to operate more sustainably in terms of physical-environmental impact, it does not necessarily mean that the company will automatically manage its international operations fairly within diverse cultures and institutional contexts or that it will contribute to social concerns that tend to prevail among its stakeholders within the international field (e.g.: poverty reduction or local community needs). This is even less so, because there is no widespread, strict and uniform international regulation on social and (local) environmental issues (Kolk and Tulder, 2010). This means that institutions, regulations as well as the functioning and monitoring of such governance tend to vary greatly between (developing) countries and regions. According to Kolk and Tulder this creates a so-called 'moral free space', wherein corporate firms need to find and define their own balance in terms of economic, environmental, legal/ethical as well as other social needs to regain their 'license to operate' (2010). Hence I will also research



to what extent it can be argued that the sustainability mission of my case study can be related to and actually incorporates international development issues such as poverty reduction, human rights and local environmental concerns.

### 2.1.3 CSR & CSV; social entrepreneurship and the BoP strategy

As mentioned it is not the case that only since several years social and environmental costs as well as concerns have occupied firms. During the past 30 to 20 years of neoliberalism the concept of sustainable development has gradually gained prominence and the private sector has indeed created various instruments as well as strategies to internalize socio-environmental costs and to foster more environmentally as well as socially responsible forms of business (i.e.: more sustainable both in terms of the environment and human concerns). Even though it is questionable how much alignment there actually is with daily operational practices, corporates have attempted to coin such matters as 'social accountability', 'public affairs' or 'community development' leading to a range of various programs, standards and policies (Barney, 2003). In the past decade, the concept of the 'Triple P' also emerged that aims to stress the connections between 'people, planet and profit' (Kolk and Tulder, 2010). Equally within the academic world and also within business environments, several approaches have emerged which I will shortly specify. Table 2.1 gives a summarized overview.

<i>Main issues</i>	<i>Examples of interrelated social and academic issues</i>	<i>Societal responses and (emerging) academic interests</i>
Social and environmental sustainability as such	<ul style="list-style-type: none"> <li>▪ Climate change</li> <li>▪ Poverty and local exploitation in developing countries</li> <li>▪ Global population growth, worldwide agriculture and food supply</li> <li>▪ Future depletion of non-renewable resources such as fossil fuels</li> <li>▪ Global and local environmental harm: waste, toxics, loss of biodiversity and natural areas</li> </ul>	<p><i>Examples are:</i></p> <ul style="list-style-type: none"> <li>▪ Brundtland report</li> <li>▪ UN Post-2015 Development agenda</li> <li>▪ Anti-globalization movement</li> <li>▪ Development of eco-products and 'green' markets/lifestyles</li> <li>▪ Investment in renewable resources (wind, water and solar)</li> </ul>
Economic and business innovation towards social and environmental sustainability	<ul style="list-style-type: none"> <li>▪ Global financial crisis, economic change and the reputation of corporations</li> <li>▪ Business management: the transformation of leadership and corporate organizational cultures</li> <li>▪ Social needs and deficits both in advanced as well as developing countries</li> <li>▪ Transition to sustainable societies and business operations (both technological as well as more social/ethical)</li> </ul>	<p><i>Business and academic interests amongst others in:</i></p> <ul style="list-style-type: none"> <li>▪ Corporate Social Responsibility (CSR)</li> <li>▪ Creating Shared Value (CSV)</li> <li>▪ Social entrepreneurship</li> <li>▪ Bottom of Pyramid</li> </ul>

Table 2.1 Overview of social, environmental and economic issues and consequent responses

Initially pressures around socio-environmental responsibility have mostly been addressed with the strategy of corporate social responsibility (CSR) and the quantitative monitoring and measurement of environmental impact such as through the UN Global Impact, the Global Reporting Initiative and the Triple Bottom Line (Mead, 2013). This means that firms have predominantly focused on the reduction of environmental harm and risks, rather than fundamentally reorganizing their actual operations in relation to the larger biophysical and social world or integrating environmental and social concerns into their core business strategy. CSR has also been regarded as a reactive response to external societal pressures and has become associated with charity donations, philanthropy and special CSR budgets that are set apart from core business strategies (Porter and Kramer, 2011). It has also been argued that CSR is a mere marketing tool and a form of 'greenwashing', which has challenged the credibility and sincerity of CSR practices (Bice, 2014). Hence Linnenluecke and Griffiths argue that CSR is not sufficient (2010). This means that it is not sufficient to improve policies and relations with stakeholders, to certify products and to minimize resource use and environmental impact (2010). According to the authors these are only superficial changes.

In contrast, Porter and Kramer emphasize the need for creating shared value (CSV) (2011). Shared value can be defined as generating economic value in a way that also creates societal value by addressing fundamental social issues and deficits. This means that social challenges should be seen as potential market opportunities. More specifically this means that a company strives to formulate policies and operations that increase its profitability and competitive advantage, while simultaneously aiming to improve the social and economic conditions of society at large (Kramer, 2015). For example a company may identify a market opportunity and gain economic revenue by commercially providing safe water provision, housing development or financial services that are needed in developing as well as advanced countries. CSV is then a form of meeting social needs and creating profit at the same time, which implies that the total amount of created value expands

beyond mere economic revenue. Such profit generates social benefits, which can also legitimize business again as a driver for positive change. Shortly, CSV emphasizes that companies need to focus on the following three aspects: a) unmet human needs which indicate potential new customers, b) new markets and products, c) the internal business costs and risks of socio-environmental weaknesses such as resource depletion. This means that companies aim to become aware of how social and environmental weaknesses undermine their value chains (Porter and Kramer, 2011). Comparing CSR to CSV, the latter explicitly integrates social purpose and a broader sense of value creation within its business model rather than focusing on compliance, reduction and mere reputation improvement; the agenda is company specific instead of focused on external reporting only (Kramer, 2015). CSV also provides a framework of structural change and three main fields for business organizations to focus on (i.e.: reconceptualization of products and consumers, value chain productivity and local cluster development). This I will explain more later on in § 2.4 'Theoretical framework of analysis', because I will use CSV as a comparative means for understanding whether it can be argued that business innovation for sustainability necessarily includes social issues and environmental concerns within developing countries.

According to Porter and Kramer, social entrepreneurs have been the pioneers in creating shared value (2011). At a practical level, social entrepreneurship has truly gained momentum and mostly consists of a relatively young generation of entrepreneurs operating outside of the mainstream corporate world. On a theoretical level, it is an emerging academic research field that still lacks coherent conceptual understanding and a clear definition (Abu-Saifan, 2012). However according to the literature research of Abu-Saifan, it can be stated that social entrepreneurs distinguish themselves as being a) mission-driven individuals who are dedicated to creating social benefit, b) entrepreneurial in the sense that core characteristics differ from conventional business executives by explicitly displaying behaviour towards social value creation, visionary change, high accountability, innovation and autonomous initiative (2012). Moreover social enterprises differ fundamentally from NGOs in the sense that the former aim to be financially independent and do not only measure their success in terms of social benefit, but also in terms of profit and earned income (Dacin and Dacin, 2011).

Finally, the Base of the Pyramid (BoP) strategy has been reviewed by academics and has been used by community practitioners and business organizations to specifically address the needs of the world's relative poorest in terms of income levels (i.e.: approximately 4 billion people with income levels lower than \$ 3,5 to 1,5 per day). The BoP strategy aims to address global issues of poverty, lack of basic products and services as well as environmental issues (Kolk and Tulder, 2010). However, it is argued that most corporate frontrunners have failed to truly take the perspective of the poor into account. Instead companies have targeted the BoP from a narrow conception of consumption and 'selling to the poor' without clearly understanding local needs and cultural appropriateness (Simanis and Hart, 2008). Hence BoP strategy has been reformulated as a form of 'business co-creation and co-venturing' wherein companies collaborate and foster equal partnerships with local communities and their resources. The BoP strategy amongst others consists of building deep dialogue and shared commitment, collective entrepreneurship and the co-creation of business prototypes. Undoubtedly such strategy will not be without practical challenges and complications, but the objective is to enable more culturally viable business models wherein value is supposed to be created at all stages for all partners. Most importantly, this reformulation is seen as a unique chance to develop a more inclusive form of business development that engages excluded voices and that can sustainably serve diverse needs around the world in terms of social benefits and environmental restoration (Simanis and Hart, 2008).

#### 2.1.4 The transformative approach towards the challenge of sustainable development and business innovation

Especially CSV and BoP strategy could in my point of view be valuable strategies for existing globally operating companies that are facing the social pressure as well as challenge of transforming themselves to become more sustainable and responsible businesses. CSV's and BoP's seem to have a similar starting point when it comes to serving overlooked and thus potentially new markets, even though the latter is specifically focused on the world's relatively poorest population. However within the scientific field of sustainable development, it is an immensely vast and yet pressing issue what is needed for such companies to transform themselves into sustainable organizations fit for the 21<sup>st</sup> century and agile enough to deal with current economic, social and environmental uncertainties (Apelman et al., 2014). This is due to the fact that relatively large business organizations have to change on so many internal and external structural levels; amongst others in terms of organizational culture, values and strategic vision, operations and processes, product development and marketing. Their operational scale and size makes them markedly different and less flexible and adaptive than social enterprises. Besides a one-size-fits-all strategy is implausible, because companies tend to differ significantly. These challenges cut across (overlapping) scientific disciplines of business management and organizational development, international development, environmental sciences, entrepreneurship, innovation studies, economics, technological engineering and even cybernetics. Moreover, a coherent discipline of innovation theory does not even exist and 'innovation' can sound as intangible and difficult to grasp as 'justice' or 'sustainable development' (Svyantek and Brown, 2000).

This can sound as though sustainable business innovation has the scale of a ‘military project’ and the question is where to start practically and also scientifically. Different approaches towards sustainable development could provide some insight into this daunting challenge. Hopwood et al. have mapped three main approaches to sustainable development, despite the general broadness of the concept (2005). They argue that the first approach is the status quo. Proponents of this approach acknowledge that change is necessary, but that especially technological innovations, increased information streams and better management techniques will provide a solution. Consequently no other fundamental changes are needed in terms of existing global power relations. Supporters of the status quo worldview are often found among governmental bodies and within the business sector. The second approach is the reformist. Proponents of this approach are mostly critical of current governmental policies and regulations, but they neither argue that fundamental change is necessary. Instead within the current socioeconomic and political structures, governments and international councils as well as supranational organizations such as the UN can realize major reforms. Finally, the transformative approach towards sustainable development entails a large-scale sociotechnical transition<sup>2</sup> of not only technically operating, but also of thinking and consequently acting differently within organizations, communities, academia and government (<http://www.drift.eur.nl>). The transformative approach to sustainable development differs from the reformist (Hopwood et al., 2005). The transformative approach instead explicitly focuses on sustainable development or rather sustainability as a normative concept linked to human values and to questions around who we are and how we can truly sustain ourselves. As such it is about the future we really want, how we relate to others and how we position ourselves in relation to nature (Robinson, 2004).

Senge has argued that current global environmental, economic and social challenges require a *cultural transformation* in terms of a new leadership paradigm, adaptive learning organizations and a value reorientation of business culture and institutionalized beliefs (2006). This again implies a transformative approach to sustainable development. Moreover, Hutchins states: *"There is a profound shift underway in our cultural story, sense of purpose and organizational logic. Deep and complex influences within our psyche, our collective consciousness and in the structures pervading organizations are being challenged to radically reshape"* (Hutchins, 2013, p.83). He also argues that command and control and silo'ed business hierarchies are part of yesterday's logic. Instead one of the greatest challenges facing organizations today is to make a shift towards more emergent, relational and integrative management.

#### 2.1.5 Why research into organizational culture is relevant

Additionally, Linnenluecke and Griffiths have similarly argued that corporates need to undergo a *fundamental cultural change* in the way they do business (2010). This means they need to develop an organizational culture that is primarily focused on sustainability both in a biophysical and social sense. This means that there has to be a common ethical commitment to sustainability that needs to be shared among organizations' members (Fenwick, 2001).<sup>3</sup> Corporate social sustainability is thus mostly a matter of human resources and organizational behaviour. In actuality biophysical and corporate social sustainability are not so easily separable. In fact, society needs new models of organizational culture and action that support both the natural environment and human relationships (Benn et al., 2014). Hence the reason why Linnenluecke and Griffiths question what constitutes an organizational culture that is (both biophysically and socially) sustainability-orientated and how organizations can realize such significant cultural change (2010). This also means that it is questionable what such ideal and desired culture would look like, how employees would feel and how the company would be operating (Cummings and Worley, 2009).

Organizational culture as a research theme has mostly been prevailing within the 1970s, 80s and early 90s and has been analysed within fields of comparative management, organizational symbolism and organizational cognition (Smircich, 1983). Nevertheless, understanding and generating knowledge around ‘organizational culture’ remains highly relevant in my point of view, the more because I will relate this to a more recent topic of academic debate: business innovation for sustainability and thereby the transition to a more sustainable world. Schein has been one of the leading academics on organizational culture. Through several examples, he illustrates poignantly the invisible influence of culture:

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<sup>2</sup> A sociotechnical system is a cluster of technological and non-technological aspects. It is an interrelated dynamic system of actors such as citizens and individual companies, but also of institutions, markets, norms, regulation, infrastructure and artefacts. A transition is a long term, multi-dimensional change on technological and material levels, but also on social levels (i.e.: organizational, economic and sociocultural) (Markard et al., 2012).

<sup>3</sup> John Hutton who is the head of sustainability at Bam Nutall, for example commented in an interview that sustainability is about humanity: *'It is about bringing more humanity to work if we want our businesses to be more sustainable. It is about embracing that emotion'*. (<http://www.theguardian.com/sustainable-business/2015/mar/27/new-thinking-big-business-systems-holistic>)

*'Most of us in our roles as students, employees, managers, researchers [...] deal with groups and organizations of all kinds. Yet we continue to find it amazingly difficult to understand and justify much of what we observe and experience in our organizational life. Too much seems to be 'bureaucratic', 'political' or just plain 'irrational' [...] When we get into arguments or negotiations with others, we often cannot understand how our opponents could take such 'ridiculous' positions. [...] As managers, when we try to change the behavior of subordinates, we often encounter 'resistance to change' [...]. We see communication problems and misunderstandings between group members that should not be occurring between 'reasonable' people. [...] As leaders who are trying to get our organizations to become more effective in the face of severe environmental pressures, we are sometimes amazed at the degree to which individuals and groups [...] continue to behave in obviously ineffective ways [...]. If we are employees [...] we realize that companies differ greatly in their approach, even in the same industry [...]' (Schein, p8, 2010).*

Firstly, this quote implies that miscommunications, inertia to change behaviour, slow or ineffective organizational decision-making are to a significant extent due to underlying differences in interests, values, opinions and unconscious assumptions among all levels within an (business) organization. This inevitably affects progress towards sustainable business innovation. Besides most business cultures are shaped by chance. This means that a practical understanding is often lacking of core factors that shape culture and how to use these to foster improve organizational performance (Chatman and Eunyoung Cha, 2003).

Secondly this implies as Schein argues, that it is important to actively invest in business culture development, because it increases an organization's capacity for achieving its objectives (2010). This is because a culture that is focused on people, emotional value and meaning giving processes, can create more agreement, commitment and autonomous behaviour through shared organizational values (Schein, 1984). This is also the reason why organizational interventions by external consultants are frequently focused on the collective values and norms under which employees and executive leaders operate (Smircich, 1983). Expressions such as *'culture eats strategy for lunch'*, also suggest that phenomena such as shared artefacts, values and social interaction play an important role within the development and success of business organizations, perhaps even more than formal strategy formulation.

Thirdly, organizational theory has often focused on how to increase efficiency to obtain long-term business sustenance and profitability. From a broader perspective, the capacity for humans to create 'organization' and to organize themselves has for example also enabled the creation of educational systems and the establishment of countless civilizations around the world. At the same time, without organizational capacity humans would not have been able to cause large-scale environmental harm, to create large-scale war zones or to invent nuclear bombing. This implies that (efficient) 'organization' as such is not a value or inherently valuable. Instead it must always be scrutinized what goal or larger purpose, 'organization' is serving. Therefore also with regards to the organization of business, it is important to question underlying cultural values and assumptions and there is an ethical need for reflexive business management (Smircich, 1983). This again highlights the crucial importance and influence of business' organizational culture.

Finally, organizational culture is indeed known to be an important factor for the innovation capacity of a firm (Martins and Terblanche, 2003). It is because of these reasons that I have decided to use business' organizational culture (BOC) as my research starting point.

#### 2.1.6 The phenomenon of organizational culture

In my theoretical framework I will give an elaborate account on the definition of organizational culture in relation to my chosen methods of analysis. Here I shortly like to specify several characteristics. Business organizations and their operations can be defined as: *a social entity and a commercial establishment that provides the necessary structures to achieve the central aim of trades in goods and/or services* (Timms, p17, 2011). Business organizations have also been scientifically analysed through the use of metaphors such as mechanical social instruments, adaptive organisms and systems of knowledge. Taken more plainly, I agree with Smircich that human 'organization' can basically be seen as: social order and orderliness (1983). Arguably culture in terms of shared ideas, values, practices, traditions and explicitly formulated structures, is the fundamental phenomenon and concept that constitutes this orderliness. Culture is thus a sort of 'social glue' that sustains 'organization'.

According to Schein culture has two main characteristics: it is not only shared, but also stable to a certain degree (i.e.: even when individual members leave, customs and values still continue to exist) and that members have a history of shared learning experiences. This makes it different from a rather random crowd of people (2010).

## § 2.2. RESEARCH IMPLICATIONS AND MAIN AIMS FOR SCIENTIFIC CONTRIBUTION

As mentioned before, I have taken one part out of the practical and scientific issue of how to move forward to sustainable business change, by particularly focusing on business' organizational culture and how this influences innovation (processes) for sustainability, both in terms of environmental and human (i.e.: employee) needs. I have argued that it is important to understand business' organizational culture more thoroughly, not only because of the need for a transformative approach towards sustainable development, but also because of the influence culture has underneath the tip of the iceberg on organizational performance and likely on innovation capacity as well and because of the ethical need for reflexive business management.

In section 2.3 and 2.4, it has been explained that there are significant (scientific) knowledge gaps concerning how sustainability can be effectively operationalized and implemented within existing companies. Currently there are indeed various practical approaches for sustainability-orientated innovation such as CSV and BoP strategy. Yet a standardized operational model for sustainable business innovation does not exist (Hutchins, 2013). Within the time constraints of this research I believe it is impossible to design a solid scientific model that can be generally applicable, let alone the question whether this would even be possible in the first place. Yet I do aim to generate more insight on organizational culture and how accordingly innovation processes for sustainability can work in practice. Thus through a particular case study, my research specifically aims to broaden understanding about:

- ✓ The subjective experiences of employees around their particular organizational culture
- ✓ Innovation processes for sustainability (including its benefits and challenges) and what role business' organizational culture plays therein.

This can build theory around how companies can foster innovation for sustainability possibly through investing in their organizational culture. So theoretically speaking, I also aim to generate knowledge around the influence of organizational culture for developing sustainable business organizations.

## § 2.3. THEORETICAL FRAMEWORK OF ANALYSIS: THE MULTI-LEVEL CULTURAL SYSTEMS FRAMEWORK

I will make use of a theoretical framework in order to support my case study analysis. In order to understand the phenomenon of business organizational culture, I have combined and will outline several theoretical approaches that can support my analysis and final recommendation. Insights from the field of organizational theory, complex systems theory and learning organizations have been used. I have called this combination of approaches: the multi-level cultural systems framework. I will use this framework to analyze the research results and to see how Interface addresses aspects out of these theories.

'Culture' is a form of organization in itself. However, culture is not the equivalent of an entire business organization. Instead I would argue that BOC is a multi-layered structure (i.e.: several systems) and at the same time a dynamic process that is subject to change and that *underlies and constitutes* a business organization. Hence in my viewpoint, 'organizational culture' is not merely a variable or background factor, but rather the fundamental undercurrent of an organization. Schein also argues that as a concept 'culture' highlights powerful dynamics that are below the surface and which are to a certain degree invisible and often unconscious (2010). In addition, 'organizational culture' as a coherent, static and objective social reality does not exist outside of human experience (Auernhammer and Hall, 2014). In fact, organizational culture is highly complex, experienced subjectively by each individual and changes over time. Moreover a business organization is generally constituted by multiple subcultures (Smircich, 1983). For instance it can be argued that different departments have distinct cultures. It is important to acknowledge these general propositions. However this does not mean that a valuable analysis on 'organizational culture' cannot be made. Even though it is not feasible to describe an entire culture as though it consists of one coherent entity, key expressions and phenomena can indeed be observed and analyzed (Schein, 2010).

To make organizational culture more understandable, I developed a metaphorical model called 'The Business Tree' (see figure 2.1). 'The Business Tree' gives a rough illustration of a business organization and gives a summarized overview of this '§ 2.3 Theoretical framework of analysis: the multi-level cultural systems framework'.

**'The Business Tree'** I is a general metaphorical model for business organizations in the world. The roots exemplify the strategy, vision and mission of a company. The central foundational trunk represents the organizational structure of a company. The foliage with its many branches, leaves and twigs stands for how a company operates through its various departments. The apples represent the product(s) or service(s) that are delivered.

#### Larger system

The tree does not stand on its own, but it interacts on a much larger systemic level and frequently on a global scale. The two trees on the left side represent the specific sector to which the company belongs as it is a player within a forest of similar businesses. On the right side the bird and the people, represent the actual environment and society. 'The Business Tree' has countless interdependencies with the right side in terms of environmental impact and financial output, supply chain, stakeholders, consumers and the communities it operates in. The water drop on the bottom represents a dependency on nature's provision in terms of energy and other resource supply.

#### Business' organizational culture

Most importantly, business' organizational culture is the social undercurrent that runs through an organization. As a sociocultural system, culture is expressed in material phenomena that are visible. Seen from an abstract level, organizational culture is essentially a complex adaptive system. However, organizational culture is to a large extent related to subjective human experience, cognitive perception and interpretative discourses often in the form of stories. For example BOC is related to overarching business values and beliefs shared by organization's members, how (fulfilled and committed) employees feel within the company, communication flows and knowledge spaces, social interactions and leadership styles.

Organizational culture plays an important role within the development and success of business organizations.

This is represented by the condition of 'The Business Tree', whether it is a healthy tree or deprived. Though this undercurrent is not necessarily visible, it impacts 'The Business Tree' on all levels from its roots, to its trunk and foliage, which consequently affects how a company operates within a larger system. Arguably, BOCC also affects innovation capacity and how a company can be transformed into a sustainable business organization.



Figure 2.1. The Business Tree

I will attempt to analyze the BOC of my particular case study by using several levels of abstraction. These levels represent the degree to which organizational culture is directly visible and have been formulated on the basis of the work of several academic authors. Moreover, it is important to explicitly emphasize again that I will argue from the standpoint that a business organization is a form of 'culture' and that 'culture' constitutes/underlies an organization, rather than seeing 'culture' as an additional structure and quality that an organization has. Culture is thus seen as a root concept that consists out of diverse, but structured human expressions of collective consciousness such as shared beliefs, values and artifacts (Smircich, 1983).

#### 2.3.1 A sociocultural system

The first level is to see organizational culture as a sociocultural system that can be concretely observed through material phenomena and physical manifestations. For instance the artifacts and products we use and make, explicit formal organizational structure and charts, visible daily work practices and procedures, the physical and virtual environments we create as well as manners and dress (Schein, 2010).

#### 2.3.2 An ideational system

The second level is to understand organizational culture as an ideational system (i.e.: collective human consciousness) (Snowden, 2002). This level refers to the more invisible and even unconscious aspects of culture as: *a system of shared ideals, goals, values, rules and unwritten norms (i.e.: diverse types of 'knowledge') that guide individual behaviour as well as social relations constituted by underlying assumptions and beliefs*. From a cognitive anthropology perspective it can be argued that the ideational system impacts how people act, how they cognitively think or emotionally feel about certain behaviour and how to react accordingly and appropriately (Smircich, 1983). The ideational system is rather tacit, fluid and contains a certain degree of subjective perception (Snowden, 2002). Additionally, Schein argues that it is specifically the unconscious dimension of the ideational system that is important to analyze. This means that it is important to delve deeper than the sociocultural level and conscious ideational characteristics, because the essence of 'organizational culture' lies in basic underlying assumptions and beliefs (2010). If a researcher grasps some of the basic collective assumptions, one is able to interpret physical phenomena that are part of the

sociocultural system. The unconscious ideational dimension fosters behavior that is fairly inconceivable on any other premise. For example as an engineer: developing a safe machine is a basic premise; to deliberately develop unsafe equipment is inconceivable. Another example that originates from early management theory and which has become collectively ingrained is the premise that commercial business organizations have to make maximize profit in a competing market and that this is the best option to survive. Assumptions are not easily changed, but require introspection and reexamination in order to learn anew. It is for this reason that challenging assumptions and beliefs can destabilize our (inter)personal world and thereby uncover significant quantities of instinctual anxiety and defensiveness (Schein, 2010).

### 2.3.3 A symbolic system and discourse

It must be mentioned that these two systems are theoretically distinct, but in reality may overlap. For instance Schein specifically highlights an (business) organization's 'espoused values' as part of the sociocultural system that can be (in)congruent with employees' actual values and behaviour (2010). Both systems indicate that culture is a subjective experience that is part of a larger pattern that enables organized action. Smircich makes a clear distinction between cognitive, symbolic and psychodynamic analyses to culture (1983). However for my case study analysis, I argue instead that on the one hand the sociocultural and ideational systems enable a highly symbolic discourse. On the other hand, the latter creates coherent relationships between sociocultural and ideational phenomena. This means that on a third level an organizational culture is a symbolic system or rather a discourse constituted by interpretation and sense-making. Commonly shared symbols can be rituals and myths, but are mostly stories that result out of shared interpretations. Such stories create meaning and are necessary for any group of people (e.g.: a business organization, political party, a group of friends) to function together. Figure 2.2 shows four levels of abstraction for analysis. I have called this figure the multi-level cultural systems framework.

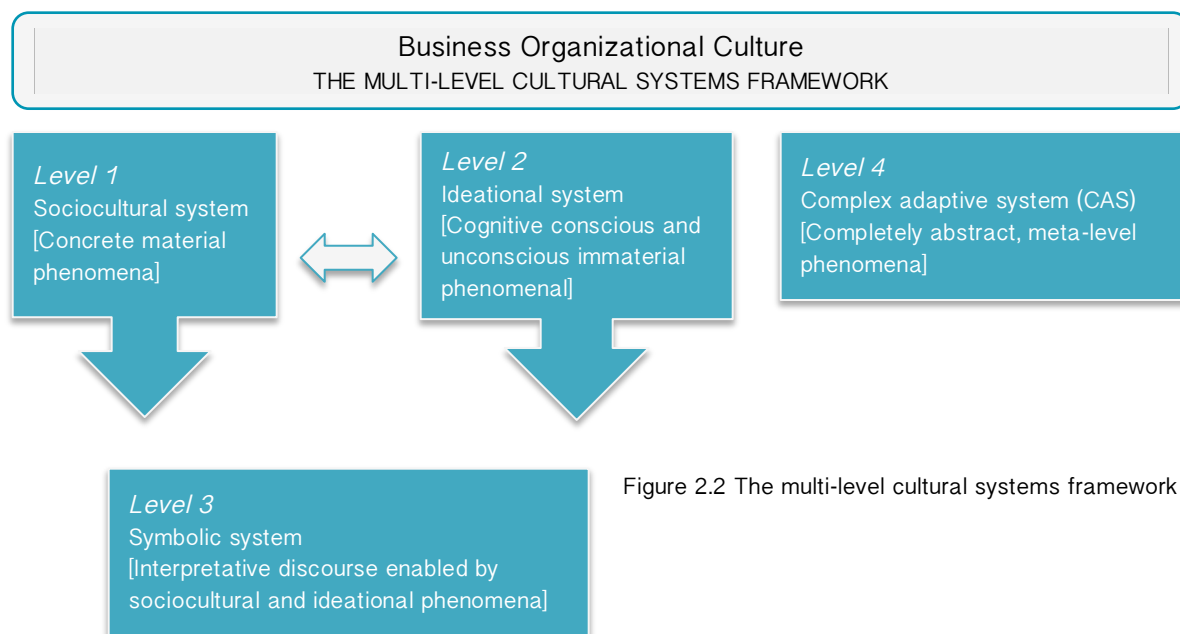


Figure 2.2 The multi-level cultural systems framework

Later on I will elaborate on level 4. Regarding level 1 and 2, the figure shows that certain artifacts, practices and dress (i.e.: sociocultural), but also ideas, values and beliefs (i.e.: ideational) that have a shared intellectual and emotional impact enable the creation of symbols such as rituals and stories (Snowden, 2002). The figure also shows that the sociocultural and ideational system mutually impact one another and are therefore interdependent. For instance if an executive board decides to change certain beliefs and ideas around its strategic objectives and what effective management entails, this can impact the company's formal organizational chart and actual daily work procedures. As was already mentioned, this figure illustrates that BOC does not exist as an independent and objective reality outside of human experience. Instead it only manifests itself as a structure of sociocultural and ideational elements that enable the emergence of symbolic relationships between interpretations. As such these interpretations become meaningful and are maintained as well as developed through constant human interaction.

This figure also shows that for example executive management and consequent vision development can be analyzed from a sociocultural, ideational, symbolic as well as CAS level. Though sociocultural and ideational aspects as well as symbolic meanings are constantly reinterpreted and changing, they facilitate a shared experience of reality. By amongst others using a level 3 approach, I aim to understand what the symbolic meaning is (i.e.: what common stories and shared interpretations emerge that create a sense of organized culture) of recurrent sociocultural and ideational phenomena that I will research in my particular case study.

### 2.3.4 The role of meaning and interpretation within an organization

These three theoretically distinct systems imply that formal organizational structure only represents the surface. Arguably it is BOC in terms of attitudes and subjective interpretations around the shared meaning of symbols and underlying sociocultural and cognitive elements which strongly impact how an organization functions. For example subjective interpretation may influence employee commitment and fulfillment, communication flows and the meaning of certain activities. These are the more non-rational qualities and human expressions of an organization (Smircich, 1983). The importance of symbolic interpretation cannot be underestimated; the more so because developing convergence among members' interpretations fosters organizational order. Daft and Weick even created a model with four interpretation modes that characterize organizations as 'interpretation systems', instead of static mechanical entities (1984). They argue that humans are constantly interpreting or giving sense (i.e.: creating coherent stories) to what they are doing, what social interactions mean, what they are learning, how to solve problems, how to translate ideational values and goals into concrete activities, how to process and understand the constant flow of sensory input and what to do next within their work environment. Moreover the argument is that organizational interpretation or rather shared ways to understand lived experience, is larger than the individual alone, because organizations tend to preserve certain values, vision and norms despite individual employees leaving and new ones entering.

Besides culture can give a sense of meaning and identity to employees. It is the underlying glue that binds organizations' members and processes together (Cameron and Quinn, 2006). The concept of 'organizational culture' then legitimates research into the interpretative dimensions of organizational life. Smircich has identified three larger interpretative fields wherein culture plays a role (1983):

- ✓ Sense of identity for members of the organization
- ✓ Sense of commitment to a larger purpose than the individual self
- ✓ Sense-making of the human sensory, cognitive and emotional experience to direct behavior

These fields seem to overlap with the concept of the learning organization (Senge, 2006). Senge has formulated five disciplines for such an organization that are essentially *normative* principles. The five disciplines<sup>4</sup> are 1) systems thinking, 2) personal mastery, 3) understanding mental models, 4) connecting people around a shared vision and commitment and finally 5) team learning. Senge argues that if these five disciplines are placed at the centre of an enterprise people will not only become more productive contributing to organizational development, but the enterprise itself can also foster its learning capacity as well as a restoration of ourselves in relation to others and the larger systemic whole (Senge, 2006). I have formulated several features of these five disciplines to analyze my case study and to inform final recommendations. This means that I will not simply use the entire concept of the learning organization. Instead I selected a number of features that are relevant for a sound analysis of my case study. Their descriptions are based on the five disciplines.

Features (i.e.: normative principles)	Short description
<p><b>Shared vision and interpersonal connection</b></p>	<ul style="list-style-type: none"> <li>▪ Vision and mission as well as main goals and guiding practices need to be shared throughout the organization.</li> <li>▪ Common identity and a sense of destiny (e.g.: Apple has a vision of computing power for the masses).</li> <li>▪ It also means that people need to believe that they can shape their future.<sup>5</sup></li> <li>▪ Shared vision signifies genuine commitment rather than compliance. This means that people need to feel connected to:               <ol style="list-style-type: none"> <li>1. The meaning of their work and their role within the organization</li> <li>2. Each other in terms of social relations. This is very important, because without good quality relationships an organizational vision will not last. Relationships also foster conversation and inquiry.</li> <li>3. A larger (social) purpose</li> </ol> </li> </ul>
	<p>Work that is connected to people's expertise and talents, their personal (learning) interests</p>

<sup>4</sup> Discipline does not signify enforced order, but rather a theory as well as technique that requires constant practice. Most of all these disciplines focus on people: our way of thinking, what we strive for, how we interact and learn to embody a truly spirited organization (Senge, 2006).

<sup>5</sup> Senge argues that on the one hand, most people know that their actions have an impact on the world/status quo. At the same time most people either do not fundamentally believe or simply deny the fact that they can actually change the status quo and carry responsibility (i.e.: this is too idealistic; it is impossible to truly make difference as a mere individual facing such large-scale systemic issues; or personal agenda's and interests play a role). Moreover problems are often created 'out there' or by 'another party'. On the other hand, business leaders and corporate organizations are generally expected to have a sense of optimism and to carry out a certain vision. This tension often leads to hollow vision statements wherein true commitment is lacking (2006).



<b>Personal fulfilment and leadership</b>	<p>and that also contains a degree of autonomy brings fulfilment.</p> <p>Personal leadership can be fostered through employees' own sense of aspirations and understanding of what matters most to them. This is indispensable to decentralize the role of leadership:</p> <ul style="list-style-type: none"> <li>▪ To continuously make our view of reality more accurate (diagnosis of where we are)</li> <li>▪ To regularly clarify what is important to us (what we want)</li> <li>▪ To personally and professionally develop ourselves and thus our capacity to create the results we want</li> </ul>
<b>Inquiry into mental models</b>	<p>Practice to understand internal assumptions about how we understand the world and bring these to the surface. Examine hidden beliefs to enable: 1) learningful dialogue and 2) organizational learning (e.g.: the latter happens when an executive team reconceives their mental model around 'the market' or 'their competitors')</p>
<b>Team learning and reflection</b>	<ul style="list-style-type: none"> <li>▪ Understanding and acting upon complementary qualities, while having a common purpose. For this an organization needs to have institutionalized structures that can coordinate collaboration.</li> <li>▪ Reflecting and thinking together (i.e.: tap potential from diverse minds) through dialogue rather than discussion. Dialogue means that there is a collective inquiry or evaluation into issues with a focus on attentive listening, suspending one's own views and uncovering assumptions. Discussion means to defend one's own views in search of the best perspective. With this communication method we run the risk of becoming 'defensive'. Dialogue requires continuous practice, even though such practices are often lacking within business organizations.</li> </ul>

Table 2.2 Features of the learning organization according to Senge (2006).

I would like to elaborate on personal leadership or rather what Senge calls personal mastery (2006). His viewpoints can be seen as part of what constitutes human sustainability. It must be acknowledged that Senge's perspective on personal mastery is highly demanding and comes down to a significant level of personal growth and emotional development. Arguably the ultimate form of personal leadership or mastery is embodied by people who have build a personal vision and are genuinely open into inquiring into other people's views, who dare to challenge and inquire into the status quo, who have a strong commitment to truth and honesty (i.e.: the honest truth that underlies our actions and who we actually are in the world when we become aware and gain reflective insight into our assumptions, flawed judgements, limiting beliefs and ego interests) and who have the professional skill, but also the (energetic) drive as well as patience to face and act upon the gaps between their vision and current conditions out of intrinsic motivation. Moreover they have a sense of purpose as they feel connected to others and life itself (i.e.: have a deeper sense of responsibility and are aware of the world as an interdependent whole), while they also remain aware of their own growth areas and personal challenges. Senge argues that fostering these kind of empowered people will make an organization stronger, because those who work within and therefore embody the organization are honest and aware of their own behavior, have a deeper sense of responsibility and are intrinsically committed to realize their vision (2006).

### 2.3.5 BOC as a complex adaptive system (CAS)

On a fourth and most abstract meta-level, it can be argued that organizational culture is a complex adaptive system wherein interdependencies, uncertainty and agency play a role. CAS theory is not one single theory. Instead it is rather an interdisciplinary perspective that has its origins within diverse academic fields such as biology, physics and mathematics (Morel and Ramanujam, 1999). CAS theorists often use agent based modelling and computer simulations as analytical tools. Mathematical computations such as bifurcation points and stochastic nodes have been applied to analyse (business) organizations and social behaviour (Svyantek and Brown, 2000; Morel and Ramanujam, 1999). Quantitative complex systems thinking applied to social science issues has mainly originated from physics and chaos theory. It must be emphasized that a quantitative CAS modelling of 'Interface's organizational culture' is not the research objective of this particular case study. The more because Dooley points out that chaos theory exclusively refers to certain behaviour of complex systems, whereas from a wider point of view CAS theory also has its origins in the biological sciences and has been applied to qualitatively analyse social systems such as economies, traffic and cultures (1997).

The overall CAS perspective on culture is crucial to take into account for my case study analysis, because human-made systems are indeed extremely complex, while they tend to evolve order and stability over time (Svyantek and Brown, 2000). Hence an acknowledgement of the theoretical insights from CAS theory should not be overlooked and can be used as an analytical framework. There are several reasons why organizational culture can be seen as a CAS. Firstly, within a human-made system such as organizational culture, there are a large number of interacting, semi-autonomous agents (i.e.: individual organizational members). These agents have diverse identities ranging from: professional employee, to colleague, director as well as possibly father, friend and son. This implies that organizational culture is inherently complex due to social differentiation for instance in terms of varied formal interests and (influential) positions within the company and heterogeneous

characteristics among individuals such as age, professional expertise, character and unique talents (Folke et al., 2005). Humans move fluidly among their different roles and act according to appropriate habits and internalized knowledge, because of socialization processes.

Secondly, these heterogeneous agents are interactive and interdependent at many levels of cognition and action (Crawford and Kreiser, 2015). 'Interactive' means that patterns of interaction emerge between agents that establish meaning and coherence. After all human-made systems are deliberate as well as organized and certainly not merely random (Snowden, 2002). 'Interdependent' means that such emergent patterns cannot be explained by individual capacities alone. Instead patterns result out of the collective behaviour between individual parts (Morel and Ramanujam, 1999). Moreover humans even have the capacity to impose order on their interactions through prescription, shared history and common will.

Thirdly another feature of a CAS is that a system can be disrupted by sudden changes or can in fact, persist while it has become obsolete and ineffective (Snowden, 2002). This implies the existence of nonlinearity and adaptive interactions over time. Applying these CAS insights to organizational cultures, it can be argued that cultures are socially dynamic instead of fixed bounded wholes. Diverse individuals constantly and actively adapt and interact with internal and external conditions as well as influence and interpret the world around them. This continuous process leads to various norms and practices that may shift as a consequence of both intended and unintended actions. On the one hand, path dependency may cause certain regular behavior to result in a diverse set of institutions and agreements (i.e.: sociocultural system). On the other hand, behavior can also be nonlinear, because it has agency, spontaneity and it may foster unexpected social change (Folke et al., 2005). This also means that emerging (cultural) patterns are neither fully controllable nor predictable and thus contain a degree of uncertainty, which is another feature of CAS (i.e.: non-deterministic outcomes) (Crawford and Kreiser, 2015). For example crisis events or leaders' advocating a challenging vision can create 'far-from-equilibrium' conditions that may evoke organizational change (Dooley, 1997).

It can thus be argued that an organizational culture is a paradoxical and dynamic stability between interactive order and spontaneous randomness, regular patterns and sudden change as well as fluid adaptation and control. This dynamic stability expresses a form of self-organization (Dooley, 1997).

## § 2.4. THEORETICAL FRAMEWORK OF ANALYSIS: SIX COMPONENTS OF INNOVATION, THE INSTITUTIONAL INNOVATION MODEL AND RELATED TABLES

In the former § 2.3, I have extensively explained how I will describe and consequently analyze organizational culture within my case study, namely as a sociocultural and ideational system that enable 'organizational culture' as a symbolic meaning giving system. Herein I will amongst others take into account the importance of identity, meaning and fulfillment as Senge has argued and culture as seen from the perspective of 'organizational knowledge' (2006). I will also take into account that on the most abstract level, organizational culture is essentially a complex adaptive system.

In this § 2.4, I will proceed with innovation and sustainability. Innovation is widely regarded as vital for business development, value creation and to maintain competitive advantage (Zahra and Covin, 1994). Moreover due to the increasing societal need for 'sustainable development', business innovation has also become crucial for dealing with global environmental and social issues. The general understanding of innovation has mostly been in terms of process (i.e.: when products or services can be produced with less input), product (i.e.: novel or improvement of products and services) and organizational (i.e.: new management practices, programs) (Rennings, 2000). However on a practical level, innovation (processes) can cut across teams and departments and they will vary depending on an organization's core competences, long-term vision and organizational culture, operational structures and available resources (Baregheh and Rowley, 2009). As already mentioned in the literature review, the concept of 'innovation' is not part of one coherent scientific discipline and can be diffuse. Though it is a very complex and broad concept, I will present two models and a definition that is particularly focused on environmental and human needs.

### 2.4.1 The definition of corporate sustainability innovation (CSI)

Firstly it is important to define the concept of corporate sustainability innovation (CSI), which I will use as a theoretical reference point for my research. My definition of innovation (processes) for sustainability is based on several authors who amongst others write about corporate sustainability, eco-innovation and organizational development.

Corporate sustainability innovation can be defined as: *a singular, multi-stage process, while it also consists out of improved or novel output in terms of products and services, operations as well as organizational forms and people's development. These processes and results either contribute to the reduction of environmental impact or to specific socio-environmental sustainability targets for the long-term sustenance of the company and/or they contribute to meeting human needs within the organization in terms of fulfillment, human development as well as physical and psychological safety* (Auernhammer and Hall, 2014; Rennings, 2000; Cummings and Worley, 2009; Baregheh et al., 2009). This definition implies the following:

- ✓ *Innovation* is on the one hand a process instead of a discrete act, and on the other hand an improved or novel result/output.
- ✓ *Corporate innovation* is multi-dimensional and can occur across departments as it can impact products, services, operations, organizational forms (e.g.: culture or partnerships) and people.
- ✓ *Corporate sustainability innovation* specifically addresses biophysical (i.e.: environmental) as well as human needs, rather than innovation that is exclusively geared towards successful market differentiation (Baregheh et al., 2009).

Additionally, corporate innovation can be analyzed according to certain components (Baregheh et al., 2009). The following model gives an overview of six components (figure 2.3).

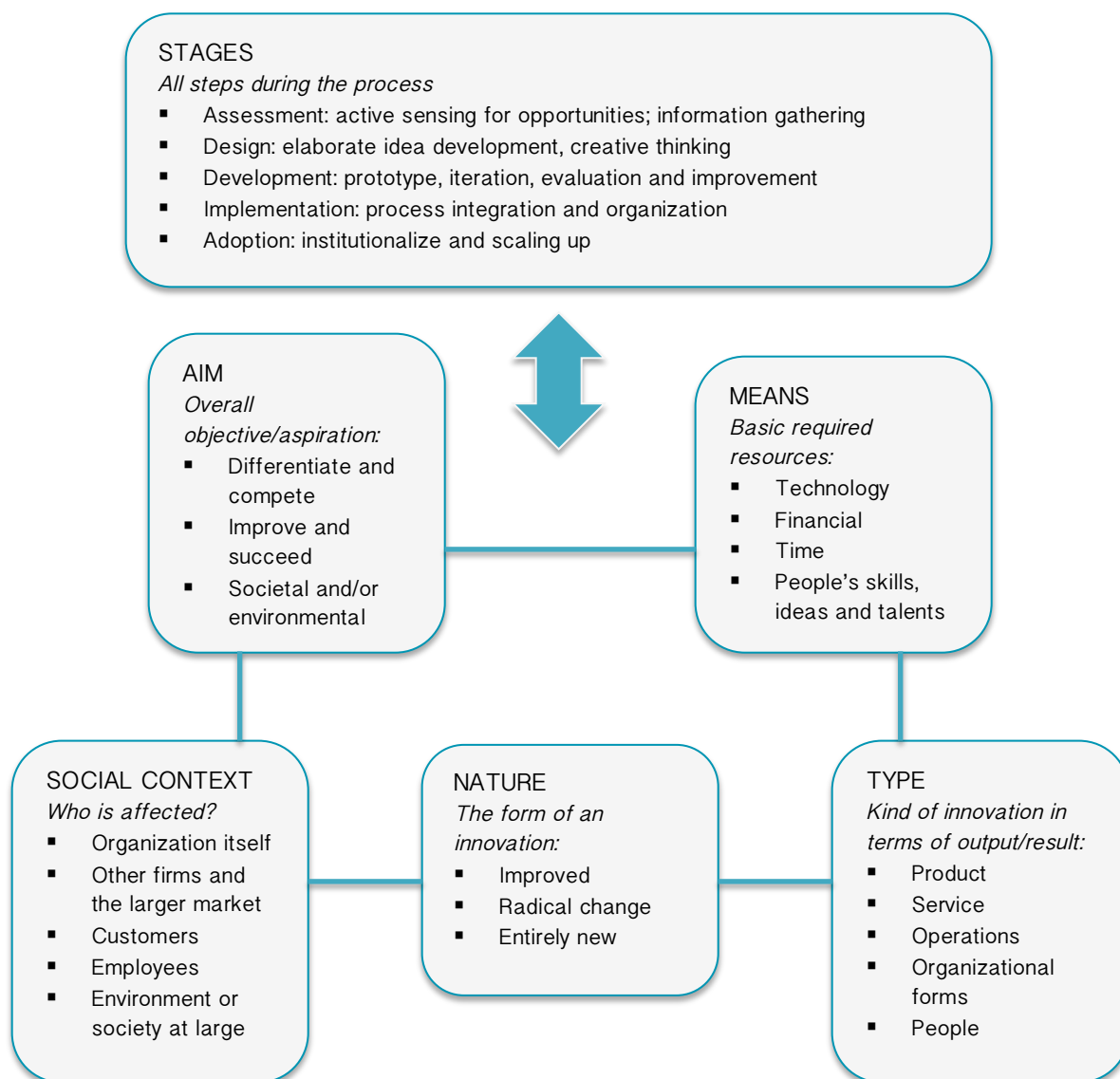


Figure 2.3. The six components of innovation based on and adapted from Baregheh et al. (2009) and Herrera Baltazar (2015)

These components indicate that corporate innovation can be categorized and analyzed as a process according to certain stages. Corporate innovations can also be categorized and described according to all the other five components below (i.e.: aim, means, type, nature and social context) (Baregheh et al., 2009). However, figure 1.2 does not exemplify the ideal or actual innovation trajectory. In fact, innovation processes are inherently dynamic and individual chance events play an important role for the discovery of new opportunities. Besides large-scale innovation is often followed by prolonged periods of incremental change (Dooley, 1997). There are also two other reasons why figure 1.2 is a clear theoretical framework, but not an actual depiction of reality. Firstly, within the first component 'stages' one already may shift back and forward between various steps of the process. For instance especially due to iteration and evaluation one may shift

back to the assessment and design stage. Secondly it is likely that during all steps, one will also shift back and forth between the five other components and hence evaluate and redirect certain choices. Hence different starting points are possible. For example an executive board may first decide upon its strategic aim of market differentiation, or an employee may encounter a recurrent operational problem or another employee may be inspired to kick-start an idea, because there are financial resources/funds available within the organization. All three starting points can lead to innovation. Moreover, the (theoretical) distinction between different aspects of each component is not always the case in reality. In fact they tend to overlap. For example during the design stage, an idea to create an entirely new product directly affects customers and requires financial resources to be developed. However, once arrived at the actual implementation stage it may become apparent that this new product will also require an improved operational innovation which may on its turn demand more resources such as time, people's skills and finance.

#### 2.4.2 The Institutional Innovation model

Furthermore, Herrera Baltazar has created a framework to understand the institutionalization of corporate social innovation (2015). Figure 2.4 depicts the model:

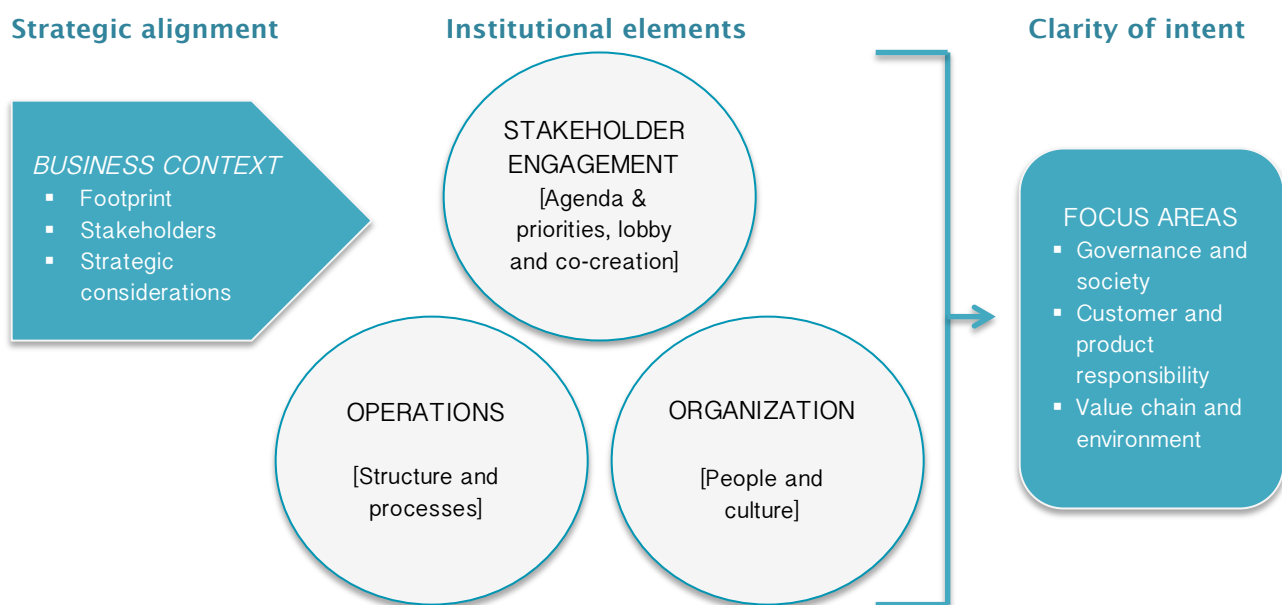


Figure 2.4 The Institutional Innovation model according to Herrera Baltazar (2015)

As mentioned, figure 2.4 exemplifies how corporate social innovation can become embedded within a business organization. I will use my own concept and definition of corporate sustainability innovation instead. However the Institutional Innovation model is still relevant for my case study analysis. The model shows three components. I will use these three components, but with a specific focus on the institutional element 'Organization' (i.e.: people and culture). Firstly, strategic alignment within a business context highlights *strategy*.

- i. If a company fully embeds social and environmental issues (i.e.: sustainability issues) within its core strategy, it will regard eco-efficiency as an integral part of its total efficiency (Rennings, 2000). As a consequence, the company will be a frontrunner and forced to think differently about products, processes and business models (Nidumolu et al., 2009). This can actually create new opportunities for innovations such as product and service invention, cutting-edge operational methods and new forms of business partnerships.
- ii. It also means that non-market factors such as the environmental footprint and stakeholder involvement should become an integral part of core business strategy.
- iii. Finally it means that a company needs to align its vision, core values and worldview with its actual objectives (Herrera Baltazar, 2015).

I would like to emphasize that if corporate social (or rather sustainability) innovation is explicitly integrated into a business organization's core strategy as is explained above, significant opportunities for creating shared value (CSV) are enabled (Kramer, 2015). In the literature review, CSV has already been explained. Now I will elaborate more specifically on how to create shared value (i.e.: creating economic value by focusing on social issues and deficits as new opportunities for profit). In order to create shared value<sup>6</sup>, the following has to be addressed:

- ✓ Reconceive products, consumers and their needs: a) identify and serve underserved customers in both developing countries and poorer areas in advanced countries and b) identify social issues and

<sup>6</sup> The definition of value is: economic and societal benefits relative to costs (Porter and Kramer, p16, 2011).

deficits that are basically overlooked market opportunities. Besides these opportunities are dynamic as economic relations, social needs and technological possibilities change. That is why an ongoing exploration of societal needs is necessary. Ultimately this is a way to relate business' success again with societal improvement (Porter and Kramer, 2011).

- ✓ A reconceptualization of productivity within the value chain and external societal weaknesses impacting business viability. This means that companies need to pay more attention to new ways of production and distribution. This necessarily implies being attentive to societal harms such as resource depletion and wasted resources, low wage labor exploitation and air pollution, precisely because these problems may become internalized and hence lead to economic costs within the value chain. So instead of regarding it as costly to address these problems and to increase process efficiency, doing so can actually save expenditures.<sup>7</sup>
- ✓ Local cluster development: creating collaborative partnerships with the regional and local suppliers, related businesses, infrastructure, other (nonprofit and public) institutions and broader community is important (Porter and Kramer, 2011). Strong and good business connections with local communities can create opportunities for shared value creation. Besides it can be financially advantageous to start locating activities closer to the base location, instead of distant production plants at low wage countries due to rising energy and transportation costs.

Questions that result out of the abovementioned are for example: 'How can our logistical processes obtain maximum water and energy efficiency? How can a new production plant be constructed that also benefits local communities and has minimum local environmental impact?' (Porter and Kramer, 2011). These questions also illustrate that a business' competitive advantage is often more sustainable if companies integrate social challenges (e.g.: positive environmental impact, housing development, delivery of a highly needed service such as better nutrition in developing countries) into their core business strategy than exclusively operating from conventional cost advantages and profit maximization (Kramer, 2015).

I aim to determine for my case study whether Interface's corporate sustainability innovations can be seen as a form of creating shared value especially in relation to developing countries, because as I already acknowledged in my literature review, it cannot be assumed that if a western company has a sustainability mission it will automatically foster shared value or rather, contribute to alleviate issues that are associated with international development. In addition, it must be stressed that I do not aim to determine the exact amount of shared value that is possibly created by Interface, because of two reasons. Firstly, my research focus would shift from researching specifically and first and foremost organizational culture (in relation to sustainability innovations) to a shared value analysis of a business case study. Secondly, according to Dembek et al. there are also several conceptual gaps with regards to 'shared value', which is defined as economic and societal benefits relative to costs (2015). It is amongst others argued that it is unclear what exactly determines a phenomenon to be beneficial and what the idea of 'costs' precisely consists of. Hence I will only use the abovementioned three recommendations of Porter and Kramer on how to create shared value to analyse my case study.

Secondly, strategic alignment can lead to three fields of 'institutional elements'. The model shows that stakeholder engagement; operations in terms of structure and processes as well as organization in terms of people and culture can enable the institutionalization of innovation processes.

- i. Stakeholder engagement means that stakeholders are important to involve, mostly because they can provide collaboration opportunities and co-creative initiatives. Moreover their support is needed when it comes to innovations that extend beyond mere internal business operations.
- ii. Examples of operational structure and processes are project initiation protocols, systemic procedures to promote and upscale successful prototypes and systems that foster innovation capacity such as regular brainstorm sessions, idea boxes and idea development boards that can be virtual and institutionalized funding Herrera Baltazar, 2015).
- iii. People and organizational culture for example refers to the main corporate values, employee attitudes and their values, a general sense or culture of experimentation and risk-taking. These examples illustrate the sociocultural, ideational and symbolic dimensions of organizational culture. With 'Organization' as an institutional element, Herrera Baltazar explicitly acknowledges that people and culture are important in order to institutionalize innovation processes (2015).

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<sup>7</sup> Examples are: 1) improving energy usages by more efficient transport, distribution and production systems, 2) reducing resource use through recycling and decreasing water consumption, 3) instead of aiming to gain as much productivity with as low labour costs as possible, invest in wellness, safety and training to ultimately decrease health care costs and employee turnover, 4) instead of aiming to sustain low prices for suppliers, support them to achieve a steady supply with high quality by providing loans, advisory services for high quality production, collaboration projects and technological facilities (Porter and Kramer, 2011).

Thirdly, the abovementioned ‘institutional elements’ can be focused on three different areas that are all social objectives. Clarity of intent is herein important. Governance and society refers to a company’s societal legitimacy. A so-called ‘license to operate’ can be achieved through supporting livelihood programs, community involvement, ethical conduct and a compliance with human rights. Customer and product responsibility is for example a focus on standards for product safety and certification. Herrera Baltazar argues that measurement of the environmental impact of products is an example of the area of ‘value chain and environment’ (2015). In my point of view these focus areas are well identified, but the author’s examples are not necessarily innovative in terms of being singular or highly novel, yet innovations can be improvements as well. However, most importantly is to stress that I will use Herrera Baltazar’s model to analyze my case study.

#### 2.4.3. Organizational culture and innovation for sustainability

In the former two sections 2.4.1 and 2.4.2, I have explained the following:

- ✓ My definition of corporate sustainability innovation
- ✓ A model consisting out of six components to analyze innovation (processes)
- ✓ The Institutional Innovation model that explains how innovation (processes) can become institutionalized within an organization and overlapping aspects with the CSV strategy

Now I would like to proceed with the institutional element of ‘organization: people and culture’ of ‘The Institutional Innovation model’, since my case study is specifically focused on organizational culture and how this influences corporate sustainability innovation (processes). I have already written extensively about the theoretical framework and approaches that I will take towards organizational culture in the former § 2.2. ‘Theoretical framework of analysis: the multi-level cultural systems framework.’ However, in this section I specifically focus on the relationship between on the one hand organizational culture and on the other hand innovation (processes) for sustainability. Thus in this section I will explicitly connect both phenomena.

Auernhammer and Hall have formulated several factors that foster an organizational environment of knowledge creation related to creative thinking and innovation (2014). Dooley has also written about the features of innovation strategies based upon the characteristics of complex adaptive systems (CAS), which I will also use (1997). Table 2.4 gives an overview of key categories and several examples that I selected for my case study analysis. According to the Auernhammer and Hall’s research the two most important categories are a) and b) (2014).

Key category	Aspects and examples
<b>a) Strategy: Vision and leadership</b>	Promote a shared vision, values and objectives: shared representations of meaning can lead to internalization: when knowledge (i.e.: information or a vision) becomes embedded within individuals’ cognition and perspective Role modeling by practicing typical organizational behavior Generate new ideas themselves and challenge/engage employees to do so as well, and nurture intrinsically motivated employees
<b>b) Organizational behavior in relation to climate/ atmosphere</b>	<ul style="list-style-type: none"> <li>▪ Communication and interaction behaviour: a sense of open non-judgemental communication, open-door-policy, teambuilding, face-to-face conversations, possibility for feedback throughout organizational levels and a sense of trust: positive atmosphere</li> <li>▪ Employee performance: autonomy and low levels of stress, overall intrinsically motivated to think along, balance between time to work and reflect</li> <li>▪ Innovation willingness: mistakes are tolerated, encouragement of risk-taking, open to change, rather than centralized control; cultivate inquisitiveness and experimentation.</li> </ul> These factors generate a ‘social space’ for innovation.
<b>c) Internal communication: Information and knowledge</b>	Explicit: research, sharing of knowledge and it needs to be clear where knowledge documentation can be found (optimal information technologies) across functions, teams and hierarchies Tacit implicit: exchange of expert knowledge, know-how and skills for work, learning-by-doing, experience of problems and opportunities
<b>d) Support mechanisms: Organizational structure and physical work place</b>	Cross-departmental and cross-team working Physical space conducive to interact
<b>e) Support mechanisms: Resources</b>	Financial, time, assistance, project management tools, knowledge

<b>f) Support mechanisms: Knowledge generation and creativity tools</b>	Institutionalized structures such as regular brainstorm sessions or build a formal division of regular work tasks and 'free space/time' to explore new ideas and improvements into organizational routines. Support employees to engage in routine to develop expertise, but they also need to step regularly out of habit.
<b>g) Features of CAS</b>	Foster internal organizational connections and external connections beyond the company, amongst others through the means of technology such as online communities and social networks Institutionalize rapid feedback loops for reflection, improvement and evaluation Foster a diversity of skills, while also specialization and expertise Only make a few explicit behavioural boundaries related to professional tasks and work Embed local decentralization of daily operations throughout the organization to increase learning potential

Table 2.3 Key categories that foster an organizational environment of knowledge creation and innovation based on and adapted from Auernhammer and Hall (2014) & Dooley (1997)

Secondly, in order to even better and more specifically analyze *corporate sustainability innovation* (processes) both in terms of environmental as well as human (employee) needs, I will use table 2.2 based on Senge's work, which has been displayed in section 2.3.4 'The role of meaning and interpretation within an organization' (2006). I will use table 2.2 to evaluate human sustainability innovation within the organization, according to the views and experiences of employees. In order to evaluate physical-environmental sustainability innovation I will use the 'Five stages of change towards sustainability' as a comparative means. The formulation of these stages is based on research into 30 large corporations (Nidumolu et al., 2009). The research question was how strategic sustainability is an incentive for organizational and technical innovations with bottom and top line financial returns. Even though Nidumolu et al. have given a valuable account, it is not clear whether the authors see these stages as a linear development (2009). Table 2.4 gives an overview:

Stages	Short description
<b>Stage 1</b>	Compliance in advancement: seeing compliance with environmental regulation as a means to develop more environmental-friendly products, services and operations before regulations become stricter.
<b>Stage 2</b>	Reducing usage and dependency on non-renewable resources: redesigning operations to achieve more energy efficiency, produce fewer emissions and generate less waste. Cooperate with suppliers in the value chain to develop environmentally sound raw materials and equally reduce usage and dependency on non-renewables. Use carbon and energy footprint analysis. Use Lifecycle Assessment methods to determine input and output from the entire value chain from raw materials to end product return. These operational innovations will have financial benefits.
<b>Stage 3</b>	Alignment of business strategies: be the first to redesign and develop entirely new (more) sustainable products. Up-to-date about consumer trends, collaborate with partners (i.e.: build alliances with other companies, NGO's and initiatives) and other environmental organizations for product certification.
<b>Stage 4</b>	New business models: explore alternatives for doing business and meeting customer demands. Question existing models, less product and more service oriented, find new avenues for value creation for customers, the company and the broader environment/society.
<b>Stage 5</b>	Next practice platforms: continuous questioning of status quo and current practices which can lead to out-of-the-box ideas, as the question that is asked often determines the range of possible answers. For instance: can waterless detergents be developed? Can biodegradable packaging help seed the earth with plants and trees?
<b>Additional</b>	Two organization-wide factors are important: 1) The executive management team needs to be determined and consistently decisive on strategic sustainability objectives, 2) Recruiting and training the right employees

Table 2.4. Five stage of change towards corporate sustainability according to Nidumolu et al. (2009)

So in addition to my first theoretical framework: 'The multi-level cultural systems framework', the six components of innovation and The Institutional Innovation model, I will use table 2.3 and 2.4 to evaluate organizational culture in relation to innovation (processes) for sustainability.

Finally I would like to specify certain stages out of table 2.4 according to the perspective of 'eco-innovation', that can be used for my case study analysis. Eco-innovations can be distinguished from different perspectives, even though within the academic world this concept is still lacking a coherent theoretical fundament (Munch Andersen, 2002). On a macro-level eco-innovations can be seen as technological (e.g.: recycling), organizational (e.g.: management), social (e.g.: lifestyle) or institutional (e.g.: environmental trade regulations) (Rennings, 2000). However, I distinguish three categories within eco-innovations that specifically concentrate on biophysical sustainability (The Encyclopedia of Earth, 2015). The first category is called 'end-of-pipe solutions'. This is a form of corporate social responsibility wherein environmental damage is reduced, but mostly measured to obtain certification without fundamentally changing product and process technologies. The second category is 'eco-efficiency and optimization'. Stage 2 (see table 2.4) exemplifies this category wherein production generates less waste and toxics, becomes more energy and material resource efficient. This category also includes better recycling and product durability. It is a form of producing more with less and includes factors such as reduction, re-use and recycling components. The third and final category is eco-effectiveness & redesign of systems. This is mostly related to stage 5 (see table 2.4), because this category consists of an actual turning point in business thinking and requires a questioning of current production systems, which goes far beyond mere improvements. This category includes maximizing biocompatibility which means that products and industrial processes are designed that mimic nature and its closed loops wherein 'waste equals food'. Instead of focusing on minimizing environmental impact, the question is how to create human-made industrial production systems that are fully compatible with the natural environment. This implies that 'incompatibility' is a design failure. There are two ways in terms of design: on the one hand, at the end of a product's life the product returns to its principal industry and is completely recycled. This means that waste is eliminated, because all compartments are recycled to make new products. On the other hand, the disposal of any used product can become environmentally valuable, because the product is entirely bio-based and biodegradable and as such could even contribute nutrients to the larger environment, that is: have a positive environmental impact (The Encyclopedia of Earth, 2015).



## CHAPTER 3 | CONTEXTUAL BACKGROUND

Firstly, in this chapter I will provide knowledge around Interface's formal vision and mission. The first sub-question of my research aims to answer what Interface's espoused vision and mission is. The research results regarding this first sub-question are likely to differ from the formal vision and mission presented in this chapter. This means that Interface's formal, espoused vision and mission on sustainability is probably not exactly the same as the actual views and knowledge that employees have. In his book 'Business lessons of a radical industrialist', Ray Anderson explains most of Interface's vision, mission and the beliefs behind it (2009). I will provide a short summary of the book with quotes that characterize what kind of organizational culture Anderson at least *aimed* to exemplify. I will additionally infuse other insights on the formal vision and mission based upon further literature research, official company documents, company statements and audiovisual material amongst others from Interface's website. It must be stressed that this chapter predominantly aims to provide a formal overview, which is necessary to draw a context for my case study analysis.

Secondly, I will also touch upon Interface's journey towards sustainability and most of the challenges behind it, again based on Anderson's book and additional documentation. This is important to gain insight into Interface's sustainability innovations so far.

### § 3.1. ORIGINS OF INTERFACE, INC.

#### 3.1.1 A global company

Ray Anderson established Interface, Inc. in 1973 as the first company in the U.S. that offered modular carpet tiles. Interface grew in success around the end of the 70s. In 1983 the general public gained the ability to buy shares. Interface extended its business to Europe and Western Asia and started to include other carpet products. In 1987 Interface acquired the Dutch and world's oldest manufacturer of carpet tiles: Heuga Holdings B.V. and would over the course of years, acquire more than 50 other holdings. In 2003 the company also started to produce for the residential market. Interface started to make a billion dollar revenue yearly, including sales in 110 countries worldwide and with production plants on various continents. This has turned the company into the world's leading producer of modular carpet tiles and floorcoverings ("Interface's history", 2008).

The main headquarter is based in Atlanta, the U.S. There are four other head offices. One is based in Georgia in the U.S., one in Canada, Brazil as well as in the U.K./The Netherlands. There are more than 40 showrooms, mostly based in the U.S. Moreover there are four production plants. One is based in Thailand producing for Asia. The production plant in Georgia is manufacturing for the U.S. Finally there is a production plant in Australia and The Netherlands, the latter is producing for the market in Europe, Africa and Western Asia. The current global CEO is Daniel T. Hendrix, since the passing away of Ray Anderson in 2011 ("Global locations", 2008). However, the division of EMEA has an executive board for Europe, Western Asia and Africa. Currently EMEA's president and CEO is Dutch as well as two other senior vice presidents (HR & Finance and Operations). The other two members: the senior vice president of product and innovation and the director of marketing and sales are both located in the U.K. ("Leiderschap", n.d.). It must be emphasized that this case study is particularly focused on the Dutch location in Scherpenzeel, The Netherlands.

### § 3.2. FORMAL VISION AND MISSION OF THE COMPANY

Currently the formal vision and future aim of Interface is<sup>8</sup>: *'To be the first company that, by its deeds, shows the entire industrial world what sustainability is in all its dimensions: people, process, product, place and profits – by 2020- and in doing so we will become restorative through the power of influence'* In 1994 Ray Anderson largely formulated this new vision of Interface that clearly went beyond mere compliance (Harel, p17, 2013). A mission is related to a company's identity. Questions around what the company represents and the reason of existence, what organizational norms and values are and how customers and employees are seen, are part of the mission statement. According to Interface's website, the mission is to become leading within the commercial and institutional interior market worldwide by its commitment to 1) people, 2) process, 3) product, 4) place and 5) profits.

- ✓ 'Unconditional respect and dignity to all people and continuously learning and development' are mentioned.
- ✓ A focus on products and services with an emphasis on engineering and process quality, with additionally a careful attention to customers' needs as well as superior customer value in order to maximize stakeholders' satisfaction.

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<sup>8</sup> This is according to the official website of Interface: <http://www.interfaceglobal.com>

- ✓ Interface also strives to become the first name in industrial ecology, by honouring the locations of their business activities in terms of environmental restoration. *'It is a corporation that cherishes nature.'*
- ✓ Finally, Interface aims to lead by example and gains its legitimacy through profitable results that also leave *'the world a better place than when we began, and we will be restorative through the power of our influence in the world'*.

I will elaborate on the abovementioned in order to give a more nuanced and contextual overview of the formal vision and mission. In the next § 3.3 I will shortly outline the main milestones of Interface's sustainability journey including some of its basic principles and ideas.

## § 3.3. A SHORT HISTORY OF THE SHIFT TOWARDS SUSTAINABILITY

### 3.3.1 Mid-course correction

In the summer of 1994, an employee from the research department asked Anderson what response should be given to customers who asked critical questions about Interface's environmental impact. Anderson writes that he had no idea what to answer except for the fact that Interface complied with environmental regulations (2009). In a short video called 'Epiphany' Anderson recalls: *'We began to hear these questions from customers we had never heard before [...]: 'What is your company doing for the environment?', to which we had no answers. It was very embarrassing. It was awkward for our sales people, for our manufacturing and research people. We did not have anything we could say'*, (Interface, n.d.). The same employee decided to initiate an environmental task force. He asked Anderson to give an opening speech, because they needed an environmental vision. However, Anderson admits in his book that for 38 years during his active labor years, he did not even once had had a second thought about what his company was extracting from the environment or what its impact was. According to his own words, before Interface's strategic sustainability direction, the company annually used approximately half a billion kilograms of fossil fuel based materials to produce carpets. Interface also annually used the amount of electricity and gas that could provide an entire city for a year. Each production plant had several smoking chimneys and produced around six tons of cutting waste daily. This made it into a highly polluting industry (2009).

Consequently Anderson had no idea what to present, because he was lacking a clear vision, which made him reluctant to give an opening speech. By providence, he found a book on his desk: *'The Ecology of Commerce'* written by Paul Hawken (2009). It was this book that opened his eyes, because it clearly explained the problems of the industrial system. It made Anderson starkly realize that Interface's current operations could one day become punishable and that issues such as global water pollution, desertification and the depletion of fisheries, were forms of severe environmental depletion and destruction. Hence Anderson gave an opening speech based on Hawken's insights with an urgent message. He argued that Interface had the moral, and professional obligation as an industrial company and as a powerful business institution to take the lead. Furthermore he stated that Interface would have to become number one in terms of industrial sustainability and even to take it a step further in becoming restorative. This meant to give more to the environment than that Interface would take from it and thus to have a positive impact. Thus in his viewpoint it was precisely business as a powerful institution that has the means to create a better world and be restorative. The first reactions of the employees in the audience were confusing; many had reasonable as well as skeptical objections and worried whether their CEO truly meant this, the more because back then fossil fuels were a precondition and one of the main ingredients for the production of carpet tiles (Harel, 2013). Some were thinking that Anderson was expressing nonsensical matters (e.g.: it would be too expensive, the technology was not available yet, they would fail; in short it simply was impossible) and most people did not understand what a commercial carpet industry had to do with the environment (Anderson, 2009).

*'[...] There is no more strategic issue for a company, or any organization, than its ultimate purpose. For those who think business exists to make a profit, I suggest they think again. Business makes a profit to exist. Surely it must exist for some higher, nobler purpose than that.'*

– Ray Anderson

*'But to have a screw loose, is sometimes precisely the essence of leadership'*

– Ray Anderson

Later on Anderson published a book called *Mid-Course Correction* that included a model for companies to achieve sustainability. It must be stressed that Anderson's determination to transform Interface has played a significant role in enabling such a radical change in the company's long-term strategy. Anderson had a minority share with controlling interest in the executive board. So he had to convince boardmembers as well as Interface's shareholders. He genuinely believed that if a company like Interface which depended so much on oil, could transform itself then any business could do it and no one would have an excuse not to do it. This implies that if Interface would take the lead in gaining a reputation of high quality, innovation and sustainability, in the long run competitors would feel increasing pressure and the entire industry would be enforced to operate more sustainably. Anderson's vision provided a first guideline and compass that ultimately inspired others as well (*'The Interface Story'*, 2008). This does not mean that Anderson

is an 'individual hero.' There were certainly employees who indeed were proponents and members of the board of directors also played an important role in supporting the mission. For example initially the new vision had been deliberately kept confidential, but Daniel T. Hendrix back then the global vice president of finance, was ultimately responsible for informing and convincing Interface's shareholders about the direction they had taken towards sustainability (Anderson, 2009).

### 3.3.2 Mission Zero and the seven fronts

However, more expertise was needed. As such Anderson and other members of the global board of directors decided to read several books from leading thinkers and visionaries in environmental sustainability. In 1995 Interface contacted these authors. Amongst them were scientists, entrepreneurs as well as activists who ultimately formed the 'The Eco Dream Team'. The team offered the company diverse input, expertise and perspectives, which provided the building blocks to inform the new business mindset. The Eco Dream Team also contributed to the promotion inside the organization and among stakeholder relationships (Harel, 2013). Several executives also went to Sweden to meet the founder of The Natural Step, which is still a global NGO aiming to assist business, government and other organizations with strategic sustainability planning. The team's consultancy and the assistance of The Natural Step enabled Interface to formulate Mission Zero and to develop a vision on what a sustainable future would look like. Through the method of 'backcasting'<sup>9</sup> Interface gained insight into the gap between current conditions and the changes in terms of operations, products and business models that were required to achieve their objectives ("The Interface Story", 2008).

Figure 3.1 shows Mount Sustainability. This is a simple drawing of Anderson that expresses the core objective of Mission Zero: namely to achieve zero negative environmental impact in 2020 (i.e.: to only take that which is rapidly renewable including all energy needs entirely from renewable sources, so not one single drop of fossil fuel and to eliminate all environmental harm within business operations) and to ultimately become restorative (i.e.: have a positive impact that contributes to environmental health). To become a fully sustainable company was seen as similar to climbing 'a mountain higher than Mount Everest' in terms of difficulty and scope. 'Mission Zero requires hard, hard work. It is not a program that takes a month. And nobody is forcing us to do so. We do this, because it is smart, but also because it is the right choice. Interface can do well, by doing good,' (Anderson, p51, 2009).



Figure 3.1

It must be stressed that Anderson could not have formulated Mission Zero without the assistance of external experts. I like to illustrate this fact by the story of one male respondent from the after-sales department: 'Once Ray visited Scherpenzeel and I asked him how he had come up with 2020 and why 2020 was the chosen year. And he answered: 'Neither do I know, but as you know we have been sitting together with colleagues and experts and they said 2020 was realistic'. So Anderson is not sitting on his pedestal deciding something out of the top of his head. Instead together we sit and see what is realistic'. Hence in collaboration with these experts, Interface undertook several steps. Firstly Interface was the first company in the U.S. that started to use the Framework for Strategic Sustainability Development (FSSD) and the four sustainability principles as formulated by The Natural Step. The FSSD fundamentally changed Interface's relationship to strategic thinking, design (with purpose), the facts of natural science and its role as a business organization in the world. It basically fostered an entirely new worldview. Since then the company has applied this framework to improve their processes and products as well as to guide their decision-making in terms of sustainability. They started with the acknowledgment that all systems on the planet are interrelated. However, to actually apply systems thinking to business' operations was challenging. Hence amongst others inspired by the work of Janine Benyus of The Biomimicry Institute<sup>10</sup>, they looked at nature for answers. Instead of following the former linear industrial 'take-make-waste' model, cyclical

*We asked ourselves: 'If nature designed an industrial process, what might it look like?'*

- "The Interface Story", 2008

<sup>9</sup> Backcasting is a method that starts with envisioning a desired future. On the basis of this vision, one can work backwards and formulate a strategic action plan in order to achieve this future. An example is to define the features of 90-100% sustainable products (i.e.: that would have to include the entire supply chain from raw materials to the end of a product's useful life), instead of trying to upgrade existing products that are essentially 'flawed' in terms of their impact. Consequently by analysing backwards, one can create an applicable model for designing such products (Harel, 2013).

<sup>10</sup> In 2006 Janine Benyus co-founded the Biomimicry Institute. The institute's mission is to 'naturalize biomimicry in the culture by promoting the transfer of ideas, designs and strategies from biology to sustainable human systems design'. Retrieved from: <https://biomimicry.org>

and interdependent processes in nature and understanding how nature dealt with 'problems' were used as an inspiration to design a business model for sustainability. For example understanding the functioning of a healthy forest could provide input for business objectives such as complete waste elimination and recycling all product materials (i.e.: 'waste is food'). Three key questions were asked, namely:

- 1) What do we extract from the environment?
- 2) What do we make with all these resources including the impact it has on the environment?
- 3) What kind of and how much waste do we produce?

The so-called 7 fronts were identified as key areas for innovation and investment: 1) *Eliminate waste* (i.e.: redefining waste as anything that does not provide value for the customer<sup>11</sup>). Waste reduction/elimination has been one of the most important measures to reduce the company's environmental impact. 2) *Benign emissions* (i.e.: eliminating any emission that has negative or toxic effects on the environment amongst others by reducing or replacing materials) 3) *Renewable energy* (i.e.: decrease the company's energy consumption and substituting this with renewable energy sources to decrease fossil fuel dependency) 4) *Close the loop* (i.e.: redesign all processes and products so that all resources can be recycled and reused) 5) *Efficient transport* (i.e.: transporting people and products with minimal waste and emissions in terms of logistics and commuting amongst others by investing in carbon offset programs, developing employee carpooling and focusing on local production and distribution) 6) *Sensitize stakeholders* (i.e.: creating a community within and around the company through training employees, connecting with customers and collaborating with suppliers and other green initiatives that understand the value of natural systems and human impact by sharing knowledge about sustainability and closing partnerships) and 7) *Redesign commerce* (i.e.: more focus on the delivery of services and values, instead of products. Certify all products with EDPs as authorized by an external organization. Promote and develop the concept of a circular lease economy and create situations with a positive contribution to society and the environment to enable sustainable livelihoods) (Harel, 2013; "The Interface Story", 2008). Investment in these 7 fronts and the measurement of their progress became a central focus.

### 3.3.3 Sustainability action and decentralization

Secondly, the next required step was actual action. Interface started with the aim to drastically reduce the amount of waste and to start using recycled materials. Cross-functional teams were formed to achieve certain quotas. Though actual waste reduction only started off slowly, Anderson was determined to move on (Harel, 2013). The QUEST (i.e.: Quality Utilizing Employee Suggestions and Teamwork) program was an initiative to stimulate waste reduction in the production plants and to challenge old routinized patterns of production. In 1995 Interface started with Re-Entry, a program to either clean and reuse or recycle carpets at the end of the products' useful life. A year later, Paul Hawken and the founder of The Natural Step, Karl-Henrik Robèrt, were requested to give workshops to a group of 50 managers. It was also in this year that Anderson publicly announced that Interface would include the FSSD in its strategic planning and employee training through a train-the-trainer construction. Consequently it is argued that the FSSD framework became an integral part of Interface's organizational culture and changed the mindsets of employees. Even though over the years on a direct strategic level the FSSD has become less prominent within the organizational culture, the sustainability mindset is now a blueprint ingrained into the company's character (Harel, 2013).

Another important event was a gathering in Hawaii with 1100 employees from 34 countries in 1997. This was a weeklong learning journey wherein employees were challenged to achieve a reduction in their own consumption and waste generation. The main goal was to bring everyone within the organization on the same page, to foster employee commitment and thus to kick-start a company-wide sustainability task force that would be inspired to take initiative and action back home as well. The event was an overall success, as employees felt challenged by this exercise, but actually achieved a significant reduction. It gave many employees real life practical experience with sustainability themselves (Harel, 2013).

*'Local problems are best solved with local intelligence and know-how'*

- Ray Anderson

Anderson acknowledges that back in 1994 it took at least a year before there was an action plan, as the executive board had no idea how to do it. With the assistance of amongst others the Eco Dream Team they realized that it was impossible to formulate one single solution or procedure and give orders out of the head office in Atlanta to become sustainable. The executive board did set up forms of global regulation and programs such as the abandonment in all production plants of using certain chemicals and the QUEST program. Yet they also believed that a large number of people needed to make many large and small steps to achieve Interface's mission. This amongst others required employees at local departments around the world to take up initiatives and contribute to the mission. Hence instead of centralized implementation with stepwise instructions according to an uniform procedure as formulated by the executive

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<sup>11</sup> This includes scrap materials, defective products, packaging and cutting waste, but also administrative waste such as misdirected orders and incorrect invoices (Anderson, 2009).

team, they instructed each division and locality to come up with its own improvements and solutions. This kind of strategic approach is not surprising, given the fact that Interface originated with a rather independent and entrepreneurial spirit in the first place. This implies that ideas should not only come from a management level, but that questioning the status quo, identifying (local) opportunities and networking, flexibility and anticipating change as skills among employees have generally been more valued than one centrally informed corporate culture. Thus in 1999 when Anderson returned to the main executive board, he ensured that employees would regain as much autonomy and independence as they could handle (Anderson, 2009).

In 2002 Interface introduced Life Cycle Analysis (LCA) to quantitatively determine the full environmental impact of a product (i.e.: the entire supply chain) and to identify areas for improvement. LCA is also a method that can start with an end product in mind in order to determine its impact. Through 'backcasting' the production process can be redesigned to diminish impact (Harel, 2013). Furthermore Interface has been striving to determine the true costs of the entire supply chain, in order to more accurately evaluate all operations and business choices.

### 3.3.4 Measuring and working towards physical-environmental and human sustainability: measures and indicators

Interface developed the 'Ecometrics' and the 'Sociometrics' to measure progress towards their sustainability objectives. Ecometrics is an indicator system for the main material and energy flows of the company, such as annual waste reduction, (renewable) energy and water consumption and (reduced) carbon emissions. Progress towards Mission Zero can be tracked through using Ecometrics and these numbers are also used to communicate externally. Sociometrics aims to measure every quarter for each business division the social impact in terms of time and financial investments that are made in educating sustainability and local community and volunteering work with other organizations ("The Interface Story", 2008).

In 'The environmental footprint' section on Interface's global website, numbers, graphs and pie charts based upon the Ecometrics can be found with sections on: energy, climate, waste, facilities and transport ("Environmental Footprint", 2014). The section 'energy' amongst others displays (type of) energy usage and energy efficiency (i.e.: energy use per unit of product). The section 'climate' amongst others states that annual emissions are analyzed and calculated through the 'Greenhouse gas protocol corporate standard'. It also displays emission reductions per unit of product.<sup>12</sup> The 'waste' section shows the (reduced) amount of waste that is sent from production factories to landfill. Within several years, Interface has prevented at least 80 billion kilograms of carpet waste. However there is no other data available on waste, which according to Interface is much broader than merely discarded products and cutting leftovers. Regarding 'facilities', Interface also aims to reduce the impact of their buildings. They have invested in several LEED certified facilities and certifications for their production plants. From the 'transportation' section, it becomes clear that Interface also looks at their transportation footprint through various partnerships and programs ("Environmental Footprint", 2014).

Even though within this research it is not my aim to provide elaborate technical content on Interface's innovations and measures, it is important to shortly summarize some of Interface's concrete efforts to illustrate that Mission Zero moves far beyond a mere bold aspiration or a marketing strategy. In terms of product development, Interface has amongst others been using Biomimetic thinking, LCA to determine a product's impact and guide process decisions, recycled materials and dematerialization (i.e.: the principle of making the same quality product, but using less material and resources) to achieve closed loops. In terms of manufacturing, Interface has been investing in recycling technologies, in closed water cycle systems and in developing alternatives for petroleum-based raw materials. The environmental impact of bio-based materials on food supply and their relation to GMO is equally taken into account. It is acknowledged that bio-based materials may not be the ultimate and best solution, but they are part of the process of looking for alternatives. In order to reduce the footprint of products, Interface also initiated 'Supplier Summits' with their key suppliers for collaboration on their sustainability goals ("Environmental Footprint", 2014). Furthermore concerning product innovations, Interface has created a large number of carpet tile collections such as Entropy based on the patterning of forest leaves falling on the ground, which can be placed randomly on the floor resulting in very

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<sup>12</sup> It is beyond the scope of this research to give an elaborate account on all the interventions and innovations that Interface has done to reduce their environmental footprint. However, I can shortly specify that in terms of energy, they have amongst others maximized efficiency through building energy monitoring systems that are visible to production employees, alternative lighting systems, solar tubes and installed other saving methods. Interface has also invested in on site renewable energy through using local methane gas from a landfill, installing photovoltaic arrays, buying renewable energy instruments and using biogas retrieved from fish waste. Regarding GHG emissions, Interface takes part in the 'Carbon Disclosure Project', which is a public disclosure of their impact. The company is also a member of various cross-sector initiatives, committees, networks and climate groups. Examples of transportation program measures are: the 'Trees for Travel' (i.e.: more than 164000 trees have been planted to compensate business air travel), 'Cool Fuel' (i.e.: tracking carbon emissions from company cars and purchasing certified carbon offsets) and Cool CO2mute (i.e.: employees' contribution for tree planting). Other measures are internal guidelines on shipping and railway usage as well as partial zero emission vehicles for transportation.

little cutting waste. Other examples are TacTiles as an alternative to glue and Cool Carpet, which is the first CO<sub>2</sub> neutral carpet. Regarding transparency, Interface started with sustainability reporting in 1997 and has adopted the so-called Environmental Product Declarations (EPDs). EPDs are evaluated through LCA and show the impact of used materials as verified by independent third parties. Other verifications for instance ISO standards for environmental and quality management are also used as well as Sustainability Assessment for Carpet. In the U.S. this is the only carpet standard that evaluates a product's impact throughout the entire supply chain.

### 3.3.5 Social sustainability and front 6

Lastly it is remarkable that Interface is more conventional with regards to social sustainability than in terms of the company's physical-environmental sustainability. Their main approach to social sustainability is 'Corporate Social Responsibility'<sup>13</sup>. Nevertheless, Interface does much more in terms of social sustainability. In his espoused vision Anderson explicitly states that front 6: sensitizing stakeholders is highly important. This is because influencing others is seen as part of having a restorative, positive impact. Firstly this means that Interface aims to request and assist others in their value chain (i.e.: various suppliers of raw materials, distributors, carpet fitters) to produce and operate more sustainably. This is necessary, because Interface is responsible for 10 to 20% of the total environmental impact of a carpet tile, while the other 80% mostly resides in their value chain (2009). Thus the company encourages and assists suppliers to reduce their impact amongst others by developing material innovations based on a partnership with Interface. Precisely because the company knows that their raw materials have the greatest environmental impact, it is key for them to successfully work together with their suppliers. Hence the global company website has a section on supply chain engagement, which means that Interface amongst others facilitates 'supplier summits' at their production plants. At such events suppliers are introduced to Interface's mission and are educated about LCA and EDP usage.

*'Can our products really be seen as beautiful unless they have social integrity too?'*

#### - Employee Interface

Secondly, front 6 also indicates that business efficiency is related to social responsibility (i.e.: ethical business conduct and honesty and respect towards those who the company impacts which includes the environment as well as people). According to Anderson's vision as informed by the Eco Dream Team and in the meanwhile with more than 10 years of sustainability experience, social responsibility would thus mean honesty and respect not only towards customers, but towards investors, employees, people who specify Interface's products such as architects, suppliers of raw materials, those who deliver and install the products, communities who are living in the neighbourhood of Interface's offices and other parties such as schools, green initiatives and governments (2009). In fact: *'To inspire our community – this means not only our working place, but our homes, schools, churches and other organizations. The entire planet is our community and stakeholder [...] Ethical business can be good commercial conduct as well'* (Anderson, p153, 2009). This quote indicates the envisioned scope of Interface that clearly goes beyond their direct supply chain.

In terms of internal social sustainability, Anderson was aware that employees needed to understand sustainability and feel committed to a shared vision in order to change the organization. *'The sustainability journey is just as much about people, as it is about recycling and energy efficiency. If our people do not know about sustainability and their impact, we are not a truly green company'* (Anderson, p151, 2009). The company amongst others organized a 'Play to Win' program with exercises with an aim to take away fears of failure, fears to speak up or to say something that could potentially be harmful for one's career (Anderson, 2009). Interface claims to be dedicated to learning and employees' skills development, because it is believed that developing one's strength fosters productivity and engagement. Interface has been using the Gallup Strengths Finder, which is a research method for employees to identify their own talents. This generates information for managers, certified coaches and the employee to build a personal development plan. Besides employees are supported to broaden their understanding of sustainability through internal courses that amongst others have been developed with The Natural Step and Biomimicry 3.8.

In terms of external societal sustainability, over the years the company has funded river maintenance, the conservation of bird areas and has invested in educational programs. The Interface Environmental Foundation<sup>14</sup> was set up in 1999 and is financed through the lectures that are given by prominent organizational members. This foundation grants classroom projects around environmental education and awareness. Employees from Interface nominate the schools that are mostly based in the U.S., U.K. and Australia. Besides especially in the U.S. and South-America, Interface has been proactive with voluntary community projects. Particularly sales,

<sup>13</sup> According to the website, CSR signifies Interface's commitment to core values in the field of human rights, labour standards (e.g.: no discrimination or child labour), responsible environmental stewardship and ethics (e.g.: integrity, accountability and compliance with governmental regulations).

<sup>14</sup> Retrieved from: <http://www.interfaceglobal.com/Company/Foundation.aspx>

marketing and management employees have been engaged in projects such as giving presentations at schools and initiatives to collectively clean natural areas (“Environmental Footprint”, 2014). In 2007 the company also started Fairworks when they were prepared to ask: ‘*What can a large company like Interface do to help alleviate poverty on the ground?*’ (Miriam Turner, co-founder Fairworks). It was one of the first times wherein Interface aimed to develop new products that would include low-income communities in developing countries. The aim was to protect local artisan production methods across the world in an honest, ecological and socially responsible way. Fairworks would have to source biobased and recycled local materials as much as possible, combine modern techniques with traditional artisan skills and would have to provide income for local communities. Nevertheless, the project has never been fully adopted and it seems as though Fairworks is no longer active.

Thirdly sensitizing stakeholders for the company also means that Interface not only assists and educates direct stakeholders within their supply chain to operate more sustainable, but also other companies. In 2006 the company launched InterfaceRAISE for corporate consultancy. The main objectives were amongst others to advise other organizations and to share Interface’s build up expertise, to change business cultures and to raise awareness for sustainability to become part of core business strategy and to inspire other companies in realizing product and material innovations. However during an informal conversation the manager of sustainable development informed me that InterfaceRAISE has only existed for a couple of years. She argued: ‘*Ultimately it did not feel right, because it characterizes Interface to share knowledge. So we stopped our consultancy services that were based on a commercial model, because money cannot be the reason that determines whether we share our knowledge or not. Obviously we also win something with this: if we share our knowledge freely with others, it is much more likely that we will come across new possibilities, ideas and collaborations.*’

### 3.3.6 The success of Interface and several key factors

Over the years, Interface has won countless awards ranging from the U.K.’s second prize in the Queen’s award for Sustainable Development and the most sustainable corporate in the world by the International Green Award Initiative. After all, Interface’s investment in sustainability has proven to be highly successful. Currently Interface is listed in almost every sustainability fund of large financial investors. Yet most importantly there have been significant benefits in terms of an improvement of product quality, loyal customers and their goodwill, positive publicity and a unique selling point leading to an overall increase in sales. The abovementioned and many other interventions have also resulted in a total costs saving of approximately \$562 million over the past twenty years, of which a large part has been reinvested in more sustainability measures and innovation processes. Anderson argues that these results illustrate that environmental sustainability and financial profitability are not opposing. In fact, they are essentially the same, the more because it is a form of business intelligence to invest in sustainability in order to cope with market turbulence and to increase resilience in the face of major global challenges (2009). Moreover: ‘*[...] A circular economy business model is not only profitable, but also ensures a ‘licence to exist’ in a sustainable world*’, (Harel, p27, 2013).

*‘Sustainability as a destination is an infectious goal at Interface and a positive force. It is woven into nearly every aspect of our business, proven out economically over the long-term and changed how we think, operate, communicate and interact’*

– Daniel T. Hendrix, President and CEO, Interface

Harel also stresses that in the case of Interface there have been at least 8 key factors that have fostered their innovation capacity for sustainability (2013). First of all it is essential to find methods (e.g.: LCA) to ensure transparency around the actual environmental impact of products (i.e.: their true costs). Also broadening one’s core competencies and thereby entering related markets (e.g.: TacTiles) could inspire innovative products and processes for sustainability. Learning from nature also tends to foster human ingenuity and establishing partnerships to technically develop alternative solutions have been key for Interface.

Specifically regarding organizational culture, it is argued that external input, commercially sharing the risks as well as rewards of innovations with partners, space for ‘successful failures’ which means to celebrate failures and learn from them as much as the successes (i.e.: to create a safe space for experimentation) and finally a culture of intrapreneurship (i.e.: employees are encouraged to act like entrepreneurs within the company: proactive to learn and stay committed, networking, staying up to date with new developments, kick-starting projects) contribute to a company’s capacity for innovation. In addition, in the article it is also claimed that there is another set of underlying factors that have contributed to the success of Interface on a deeper level which illustrate the cultural mind-set at Interface (Harel, 2013). It is relevant for my research to specify these factors:

- ✓ To become a frontrunner by daring to be the first: ‘sticking your head out, when nobody does’. Interface was one of the first global companies that made a commitment to complete sustainability and that has kept on reinvesting in sustainable innovations. This inevitably requires a sort of ‘just do it’ mentality, risk taking and an experimental disposition.

- ✓ The formulation of a meaningful and ambitious vision has had two important benefits. Firstly it has stimulated a significant amount of creativity within the company. This is because Mission Zero is sufficiently challenging for people to think and envision beyond their current framework of possibilities and ideas. This implies that it is first and foremost a matter of offering people a new perception, a new way of understanding the world and our relation to it. Interface's vision also meant that individuals should not be forced, but can indeed be guided and offered a possibility to see the world differently. Secondly, Mission Zero has influenced the 'soft side' of business, namely the more emotional and caring dimension wherein employees can feel inspired and engaged. As such people can relate their individual role within the company to a shared purpose and they can feel that their work does not only generate economic value, but also contributes to the world around them.
- ✓ Interface has also build a culture of daring to face challenges as latent opportunities and to question the status quo. The board of directors dared to ask themselves inevitable and crucial questions that initially could be seen as threatening. For instance: 'Do people really have to buy oil and nylon in the form of a carpet?' The answer was 'no'. Yet this was turned into a motivation and opportunity for innovation.
- ✓ It also argued that clear communication, both internally and externally has been crucial. This also includes several platforms for employees' to give feedback. This generated information on what matters most to people and how to turn this knowledge into small steps for long-term change.
- ✓ Interface has also continuously invested in innovations in terms of product and manufacturing processes. A focus on innovation has to become so embedded within a company's culture, that it also changes the way employees see the world and their work.
- ✓ Finally it is argued that one of the major factors is the fact that employees have been constantly encouraged to bring in their ideas and that hence, the largest innovations have often come from employees themselves. Moreover much care has been given to whether people deploy their talents sufficiently and whether it would be beneficial if they would be shifted to another position (Harel, 2013).

### 3.3.7 Beyond 2020 and current challenges

Nevertheless, even though the company has booked major successes and achievements especially in terms of product and technical operational innovations, it must also be acknowledged that the majority of the low-hanging fruit has now been picked and that breakthroughs have levelled off since a couple of years. To achieve Mission Zero will now require the most complex or small-scale innovations that amongst others include clean and less driving of cars of employees and the lunch canteen food. This is comparable to the idea of climbing the last part to a mountain's top, which is generally the most difficult. Currently Interface is inquiring into the next step after Mission Zero, called: Beyond 2020. Their website states that their aim for beyond 2020 is to truly work towards becoming a restorative company that will have a positive environmental impact ("The Interface Story", 2008). Moreover in terms of physical-environmental sustainability, there are three uncertain issues. The first is that currently there is a general shortage in renewable energy provision (e.g.: can indeed as many solar panels be build that are necessary to sustain global consumption); technically speaking it is also difficult to find and manufacture 100% recycled or bio-based materials and thirdly, the question is how to remain profitable, while aiming to stretch a product's lifetime as much as possible. Another important challenge is to specifically invest in social sustainability in terms of creating trust, collaborative partnerships, innovation and community building throughout their supply chains and even across sectors. Interface still needs to increase an external culture of sustainability around them. This implies that in order to set the pace for others and to help as well as inspire other companies to change sustainably, Interface needs to share more of their knowledge and lessons learned. Finally, it is uncertain whether the company will actually achieve Mission Zero in 2020. Though it is likely that specific locations such as the head office in The Netherlands will, worldwide this will probably not be the case. Nevertheless, Interface has been a hugely important business case for both sustainability as well as profitability, even though the abovementioned challenges will demand continuous investment, determination and focus (Harel, 2013).

Finally through participant observation and shadowing of the manager of sustainable development, I observed two interviews that were conducted for 'Beyond 2020'. The Global Innovation Team in the U.K. formulated the questions. They represent a wealth of information regarding Interface's organizational culture and perspective on the world. The questions are indeed remarkable and it important to understand what they signify about Interface's organizational culture. Even if the organizational culture in reality is not similar as to what these questions represent, it is already innovative to ask such questions in the first place. Box 3.1 gives an overview:

#### BOX 3.1. | OVERVIEW OF INTERVIEW QUESTIONS 'BEYOND 2020'

1. Please tell shortly what you are currently doing at Interface?
2. What about Interface's mission and sustainability vision do you like/value the most?



3. What do you think about sustainability personally? What aspects are important to you?
4. Please finish this sentence: The future of sustainability is...
5. Can you think of something that exemplifies this future and can you explain why? This example could be something from a book, a movie or the business world?
6. Interface surprised the world with our bold vision to be a sustainable company with a restorative influence in the early 90s. As we think about our future and the next step, if we would surprise the world again, what would it look like?
7. What would we be doing as a company, what would be our focus?
8. Who else may be involved outside of Interface?
9. Defining restorative - Interface envisions to be the first company that by its deeds shows the entire industrial world what sustainability is in all its dimensions: people, process, product, place and profit by 2020. And by doing so becoming restorative by the power of influence. Please finish this sentence: Restorative is...
10. Please share an example of something that you think is restorative and explain why?
11. How do you think Interface could be restorative?
12. Impact - Early in our sustainability journey we realized that we were part of a larger system and that we needed to go beyond only lowering our own environmental impact. We needed to influence others like customers and suppliers. We have increased our impact to a great number of other organizations. Can you think of an example wherein we influenced others to change, describe what happened?
13. What do you believe is the biggest impact Interface can have on those outside of Interface?
14. How can we make this happen? What action can we take and what capabilities do we need?
15. The next Mission Zero: if you had to write the next mission statement what would it say?
15. What words would be important if you had to write the next mission statement?
16. What factors do you feel will be critical to us achieving the next step in our journey?
17. Imagine: it is 2040, what did we achieve what we initially thought would be impossible and what kind of breakthrough products, projects etc. are happening?
18. What are the sound bites or tweets we use for our success?

The questions at least suggest features such as: visionary, dedicated, forward thinking, intrinsically motivated to do well with a focus on being restorative and groundbreaking, collaborative as well as personally focused (i.e.: what does sustainability mean to you). Nevertheless it is still questionable to what extent these features are actually embedded within Interface's BOC.

## CHAPTER 4 | RESEARCH DESIGN AND METHODOLOGY

### § 4.1. RESEARCH OBJECTIVES

- i. The first research objective is to broaden understanding and knowledge about how different individual employees from a business case study of Interface, Inc. in The Netherlands, subjectively view the different dimensions of:
  1. The business organizational culture (BOC) they are working in or rather, which constitutes the company they are working for.
  2. Related innovation (processes) for sustainability within the organization both in terms of environmental and human (i.e.: internal employees) needs.
- ii. The second research objective is to understand on the basis of the experiences of individual employees, to what extent Interface's espoused vision and mission on sustainability is integrated into its BOC and how this consequently influences innovation (processes) for sustainability.
- iii. As such the main and final objective is to determine how BOC is interrelated with corporate sustainability innovation as well as to specify what cultural conditions can foster innovation (processes) for sustainability. This basically implies that I aim to give a final recommendation on how business firms can innovate for sustainability through investing in their organizational culture.

### § 4.2. RESEARCH QUESTIONS

On the basis of my research objectives I have formulated the following research questions in order to be able to give a final recommendation on BOC in relation to sustainable business change:

#### Main research question

*To what extent is Interface's espoused vision and mission on sustainability integrated into their business' organizational culture (BOC) and how is this related to their innovation processes for sustainability in terms of the environment and (internal) human needs?*

#### Sub-question 1

*What is the Interface's espoused vision and mission on sustainability?*

#### Sub-question 2

*How does Interface's BOC function and what cultural characteristics can be identified?<sup>15</sup>*

#### Sub-question 3

*How do Interface's innovation processes for sustainability work in practice and what are the pros and limitations according to the experience and tacit knowledge of employee respondents?*

It must be acknowledged that innovation processes for sustainability are not linear trajectories, but challenging and probably at times complex. Therefore this question addresses the limitations and difficulties that are part and partial of sustainable business innovation.

#### Sub-question 4

*How can the research results inform a final recommendation around business' organizational culture (BOC) that fosters innovation for sustainability?*

### § 4.3. METHODOLOGY

#### 4.3.1. Phenomenological interpretivism and social constructivism

The methodological approach of this research is starting from two philosophical standpoints. In the first instance I will start from the perspective of phenomenological interpretivism implying that complex social phenomena such as business' organizational culture as well as business innovation processes should be studied differently than the objects of natural science. I am not researching the technical aspects of

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<sup>15</sup> This I will test through 7 interrelated qualitative indicators that can evaluate a BOC in relation to innovation processes for sustainability. The 7 qualitative indicators are: a) common awareness and business values, b) employee engagement levels, c) communication flows, feedback and social relations, d) employee satisfaction and performance in relation to the larger business vision and mission, e) leadership and organizational structure in relation to the larger business vision and mission, f) innovation culture and g) physical workspace. These indicators will be explained more in section 4.4.3.

Interface's innovations per se. Rather I am researching the connection between Interface's BOC and their business innovations. Hence an acknowledgment as well as focus is given to the qualitative value of subjective interpretation and professional experiences of the respondents with Interface's innovation processes in relation to their BOC.

Secondly, this is connected to the idea of social constructivism which emphasizes that social phenomena are constructed as well as culturally conditioned rather than existing objectively in the outside world (Desai, 2006). This also means that respondents from Interface are interdependent with the researcher. Therefore it is important to remain reflexive and aware about one's own subjectivity as a researcher. However, precisely one's own subjectivity can be an asset. Summer and Tribe describe several social constructivist criteria that strengthen rigour in doing research. These are for instance a need for 'authentic communication and trust, fairness and coverage of multiple perspectives and individual experiences, reflexivity and praxis – meaning being aware of one's own background and how to take practical action' (p116, 2008).

#### 4.3.2. A qualitative and inductive approach

This research can be characterized as an explorative and interpretative study (i.e.: how does y interpret the phenomena of x in a given context of z) (Summer and Tribe, 2008). The qualitative approach seem most suitable for this particular research, mostly because semi-structured interviews for 'mapping' or 'exploring' a complex set of factors and perspectives better than quantitative surveys (Creswell, 2009). This suits the main research issue, which is explorative in nature instead of specific and narrow. Besides qualitative methods are also appropriate for capturing meanings, complex ideas and processes that may be underlying the concepts of BOC and innovation processes. A qualitative approach may also bring in more understanding as well as opportunity for people to discuss issues around their business' organizational culture, which may be less easy to specify in a standardized survey (Desai, 2006). As such the main starting point for this research is qualitative. Finally, my approach is inductive, because I aim to generate broader knowledge from a case specific study.

#### 4.3.3. Institutional ethnography

In addition, institutional ethnography (IE) is a social theory and basically a methodological philosophy that focuses on how people's activities are socially embedded and organized. IE originated within critical Marxist and feminist studies around so-called 'ruling relations'. This means that IE uses texts (e.g.: management reports, protocols, state administration, legislation) to disclose power relations within institutions and how texts, terms and concepts determine social organization and enable or limit the actual work of people (Walby, 2005). 'Ruling relations' are less relevant for my particular case study, yet it is important to explain why IE is indeed relevant for my case study. Thus before I will move forward to my concrete research methods, I will elaborate upon IE.

IE first and foremost starts with inquiring into the standpoint and practices of people as they are in their daily behaviours (i.e.: occupation), such as within professional work activities (Prodinger et al., 2015). These occupations are always part of a larger social context, because the 'everyday doings' of people are mediated through social relations that coordinate activities. This means that IE is also concerned with understanding sociocultural processes in time and place, because people's occupations are influenced by factors that are not immediately visible to the individual him or herself.

However as mentioned, IE starts with people's experiences on the ground. These experiences are called 'tacit knowledge'; that is knowledge resulting from doing and interacting. Humans are thus seen as 'embodied knowers' (Prodinger et al., 2015). Through the acknowledgement of bodily experiences and views, IE researchers can understand how values, concepts and beliefs<sup>16</sup> are rooted within individuals' activities<sup>17</sup> and researchers can thereby gain access to tacit knowledge. Yet IE also emphasizes that human experiences and activities are shaped in relation to others within a setting (e.g.: are socially situated and conditioned). This also implies that out of the relationships between people's actual activities, knowledge and experiences a local organizing consciousness emerges or rather a 'culture', which is larger than the individuals themselves (Prodinger et al., 2015). Additionally, an institution is defined as a web of social relations around a particular field such as education, law or family life (Prodinger et al., 2015). The following § 4.4 describes how I will use IE's methodology to formulate specific data collection methods.

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<sup>16</sup> Shared values, concepts and beliefs can be seen as part of ideational phenomena (see § 2.3 'Theoretical framework of analysis: the multi-level cultural systems framework').

<sup>17</sup> Shared individuals' activities can be seen as part of sociocultural phenomena. As explained in § 2.3 'Theoretical framework of analysis: the multi-level cultural systems framework', sociocultural phenomena are material and physical manifestations such as artifacts, but also visible practices and regular activities as part of a group of individuals.

## § 4.4. DATA COLLECTION METHODS AND SAMPLING

### 4.4.1. Research population

I have conducted a total number of 40 qualitative semi-structured open interviews. 11 out of 40 respondents were key informants of whom one was an alumnus of the company. One other method, namely an open-ended questionnaire was used for the 12<sup>th</sup> key informant who was not working at the Dutch office, but explicitly operated on a more global level (i.e.: Europe, Western Asia and Africa). Most interviews have been conducted with middle-aged men and women from approximately 35 to 55 years old. These were 19 interviews in total. 13 interviews have been conducted with younger employees in the age of approximately 25 to 35 years old. In total a number of 8 interviews have been carried out with employees older than 55 years.

### 4.4.2. Data research methods

IE is essentially an empirical investigation of relations within settings of everyday life and organizations as well as how daily experience is socially organized through activities and work processes around a specific field such as business innovation for sustainability (Wright, 2003). According to Walby, the main data collection methods of IE are qualitative interviews that include Likert scales and visualization methods (e.g.: inviting employees to draw how they feel within the company), participant observation and the textual analysis of secondary documents (2005). Yet these data sources are not the main research object themselves, but are used to provide entry points into social webs and working actualities.

Regarding this particular case study, the institution is: business' organizational culture in relation to innovation. Firstly instead of focussing on texts to understand power relations as IE originally formulated, I have used one of the main books written by the founder of Interface, secondary documents such as articles and texts on the official website as well as one videofilm to understand Interface's espoused vision and mission. Secondly I believe it is also relevant to observe social relations within Interface through participant observation at the office in order to gain a deeper understanding of the BOC. In addition, IE explicitly focuses on people's activities and their tacit knowledge based upon individuals' experience and how they talk about their work. Hence I have also used semi-structured interviews to research work experiences and how employees feel within Interface's organizational culture.

Finally, my initial intention was to not only use semi-structured interviewing and informal questioning during participant observation, but also to use shadowing of at least four employees working at different main departments such as sales, product innovation or engineering, finance and marketing. Shadowing is an intensive method whereby the researcher closely follows an individual for a certain period of time while continuously making field notes of the individual's activities, comments and communication. The researcher actually 'walks with' or 'comes along' with the individual and asks questions when prompted. It is important to gain access and trust to carry out such method. Thus my intention was to observe the daily actual work that employees perform with a specific focus on sustainability innovation within Interface, as part of their views and values. However, it must be acknowledged that ultimately I was only able to shadow the manager of sustainable development during several meetings and events. It appeared that in this particular case study, shadowing as a method requested too much effort from the generally busy employees.

Table 4.1 gives a precise overview of the research methods that I used including two sampling methods of convenience and snowball sampling.

Research method (including respondents)	Selection method of respondents	Practical details (e.g.: place, time or date)	Relevancy
Secondary literature research	N/A	Utrecht University	To gain an overview of the main concepts and theories which are already specified in the academic literature and within relevant books.
Review of business reports, texts and sustainability documents from the website of Interface	N/A	Utrecht University and home	To become acquainted with the company in terms of vision, strategy, operations and its business' organizational culture mostly in terms of the espoused vision and mission.

<b>Analysis and learning from Anderson's main book on sustainability and Interface and related articles.</b>	N/A	Borrowed from Interface and online	Idem
<b>Participant observation and informal conversing with employees working and walking around in public meeting spaces</b> (topics mostly around BOC and innovation processes of Interface based upon a qualitative questionnaire guide)	Convenience sampling. This means that respondents are selected, who happen to be available at the time of data collection.	Interface office and production plant (lunch restaurant, The Awarehouse and various separate offices, the production plant), The Netherlands Before and after interview appointments in June, July and August.  I have also participated in an official tour with a tour guide from Interface with a group of visitors.	To acquire a 'feel' for the BOC of Interface, the energy within the company and the work ethos: it can give a good first impression of the company.
<b>Semi-structured interviewing of an hour of 40 different employees from various departments.</b> <sup>18</sup>	Due to practical constraints (i.e.: these are employees with time planning and responsibilities), it is not possible to use a sampling method. Instead Van Arkel provided access to the first number of employees. After that I used snowball sampling.	Interface office. Appointments in June, July and August.	Due to the fact that this research is focused on Interface's business' organizational culture, Van Arkel advised me to interview employees from various departments. This is because sustainability innovation is arguably integrated into every department of Interface and because this research revolves around 'business culture', rather than a specific issue like product innovation or finance only.
<b>Shadowing of the manager of sustainable development of Interface and semi-structured interviewing.</b>	N/A: She is a key informant	Instead of my initial planned 7 - 10 days shadowing of Geanne van Arkel in daily work activities and appointments, I have shadowed her in a number of (Webex) meetings, presentations and events (amongst others 'Beyond 2002' interviews, Biomimicry event, visit to the New World Campus and two internal meetings and one meeting with external parties) in July and August 2015.  During the shadowing process, I also conducted a semi-structured interview with Van Arkel	Van Arkel is the manager of sustainable development of Interface, she has been working for 13 years for Interface. She knows the company's organizational culture, innovation processes and history very well.
<b>Semi-structured interviews of one alumnus of Interface and the European sustainability director of Interface.</b>	N/A: They are both key informants	Alumnus: two semi-structured interviews conducted by telephone in July and August 2015.  Director: open questionnaire through email in August 2015.	Especially the alumnus of Interface has been important for critical comparison between current and former employees. Even though I was not able to interview more alumni, the perspective of one individual alumnus significantly enriched my research data. The European director provided me with more general data on the company's vision on sustainability innovation and long-term strategic thinking. I have mostly used this as information for Interface's espoused vision and mission.

Table 4.1. Overview research methods and other relevant information

I have structurally analyzed the data by using NiVo, a qualitative data program to code themes that emerge out of the interviews, participant observation and shadowing. The final research stage will be a summary report and a feedback presentation for Interface.

<sup>18</sup> My initial intention was also to conduct several semi-structured interviews with members of the board. Ultimately I decided to no longer use this research method mostly because of their busy agenda's, even though several respondents mentioned that it would be possible for me to approach them.

#### 4.4.3. Qualitative indicators

I have also formulated 7 qualitative indicators in order to evaluate the BOC that constitutes my case study. I combined insights from the 'The Art of Innovation' by Tom Kelley<sup>19</sup> (2001) and articles on organizational culture/corporate social sustainability to formulate indicators in order to determine a BOC's innovation capacity for sustainability (Schein, 2010; Smircich, 1983; Linnenluecke and Griffiths, 2010). Table 4.2 gives an overview.

Qualitative indicators of a BOC	Short description of guiding questions	Source
1) <i>Common awareness and business values</i>	What is Interface's future vision and mission on sustainability according to employees (i.e.: in terms of long term purpose, activities and character/uniqueness of Interface); to what extent do they know about the company's long-term direction? Is this vision and Interface's business values 'common knowledge' among the organization's members? If they would have to characterize Interface in three words, what would they say?	(Benn et al., 2014) (Cummings and Worley, 2009) (Fenwick, 2001) (Linnenluecke and Griffiths, 2010)
2) <i>Engagement levels</i>	What is the level of employee engagement with Interface's mission on sustainability; to what extent is it a shared purpose (i.e.: personal and team drive to sustainability issues, inspiration and confidence, enthusiasm, aspirations, involvement or disinterest, act on demand, skeptical)? What does it mean to them to work for Interface?	Idem
3) <i>Communication flows, feedback and social relations</i>	How do employees experience everyday social relations to others; how do they relate to one another and personal encounters, frequency of interaction among staff/suppliers and other stakeholders, feedback opportunities and information availability throughout the organization?	(Benn et al., 2014) (Cummings and Worley, 2009)
4) <i>Employee satisfaction and performance in relation to the larger business vision and mission</i>	How do employees feel within the company? What is the 'atmosphere'/'energy'? Do they feel valued, sufficient fulfillment/meaning and able to professionally grow and perform well (some examples in terms of skill variety and trainings, autonomy, task significance, rewards, coaching and joint goal setting); <i>mostly</i> in relation to their individual tasks/responsibilities or also to the overarching business' mission on sustainability? How do they actually work on an everyday basis? What is number and type of employee trainings, workgroups or programs dedicated towards the company's vision and mission? How accessible are these and do all employees make use of them?	(Benn et al., 2014) (Cummings and Worley, 2009)
5) <i>Leadership and organizational structure in relation to business vision and mission</i>	What is the perception of employees regarding how their leaders (i.e.: local managers, division directors and board of CEO's) act and how is Interface formally organized according to its main business vision and mission? Do they feel that Interface is taking its sustainability impact and responsibility for its own formulated vision and mission serious? Is Interface' progress towards their mission measured and communicated effectively by their leaders?	(Fenwick, 2001) (Linnenluecke and Griffiths, 2010)
6) <i>Innovation culture</i>	What are employees' perception and (learning) experiences around: <ol style="list-style-type: none"> <li>1. Space for and level of risk taking, experimentation and change within Interface in terms of for instance products, sharing of ideas, questions and level of appreciation to cross-pollinate knowledge freely, possibility for taking up new initiatives, practices and prototyping?</li> <li>2. Innovation processes: are they planned and implemented? Or do they more spontaneously occur? How are these processes guided and through which facilities (e.g.: what kind of information systems or platforms for sharing and collecting)? Who decides and at which departments? To what extent is everyone involved in identifying and finding solutions for sustainability issues?</li> <li>3. Examples of concrete innovative products and technologies, projects, partnerships for Interface's</li> </ol>	(Kelley, 2001) (Cummings and Worley, 2009)

<sup>19</sup> This is a book written by Tom Kelly, the founder of a product and design company in Silicon Valley: IDEO. The book has become widely successful since it was first published in 2001. Its content is based upon stories and the experiences from leading businesses around the world. Even though it is not directly a scientific work as such on innovation management, the merit of the book lies in its practical application (i.e.: methods, tools and expertise) and the knowledge that is achieved from actual work practices.

	sustainability mission? What works and what needs improvement? Which benefits and challenges?
7) Physical workspace	How does the physical workspace look, what is the interior design (e.g.: open spaces, stickers, quotes, meeting places etc.)? Is the environment conducive to share ideas and interact? (Kelley, 2001)

Table 4.2: Qualitative indicators to evaluate a business' organizational culture and its innovation capacity for sustainability

#### 4.4.4. Alternative criteria for the scientific rigor of research methods

Sumner and Tribe argue that the criteria for scientific rigor are biased towards quantitative research (2008). As such they propose several alternative criteria for qualitative research (Sumner and Tribe, 2008, p114). As such it is important to stress that in this sense the traditional criteria of quantitative research are less applicable to my particular case study. Table 4.3 depicts the various quality criteria and descriptions:

Traditional criteria	Alternative criteria
<i>Validity</i> : the extent to which there is a correspondence between data and conceptualization	<i>Credibility</i> : the extent to which a set of findings are believable
<i>Reliability</i> : the extent to which observations are consistent when instruments are administered on more than one occasion	<i>Confirmability</i> : the extent to which the researcher has not allowed personal values to intrude to an excessive degree.
<i>Replicability</i> : the extent to which it is possible to reproduce an investigation	<i>Dependability</i> : the extent to which a set of findings are likely to be relevant to a different time than the one in which it was conducted
<i>Generalizability</i> : the extent to which it is possible to generalize findings to similar cases which have not been studied	<i>Transferability</i> : the extent to which a set of findings are relevant for settings other than the one or ones from which they are derived

Table 4.3: Quality criteria and descriptions (Sumner and Tribe, 2008).

It can be argued that the proposed research methods from table 4.1 have provided credible results, because this research is inherently interpretative. As such it comes down to a matter of findings that need to be plausible, rather than valid from a quantitative perspective. Confirmability is also important to take into account. I must be aware of my own values, beliefs and worldview, especially when trying to understand Interface's BOC.

Dependability is relatively high for this particular research. I have precisely decided not to focus on measuring sustainability innovation through quantitative performance indicators, because this would merely illustrate a snapshot in time. Instead I focus on the larger process and as such I aim to gain more insight into the long-term trajectory of sustainability innovation.

Transferability is also more appropriate for this research than generalizability. The final objective of this case study is to generate results that are relevant for other business organizations as well. It must be acknowledged that business organizations are actually highly unique and complex structures with specific objectives, departments, operations and strategies of their own. Hence potential for generalization, or rather transferability may be limited. I will elaborate upon this issue in the next § 4.5 'Limitations'.

## § 4.5. LIMITATIONS

Transferability of my case study may be a limitation, especially because due to the time constraints of a 6 months research I was neither able to carry out a comparative case study nor to create a qualitative questionnaire that could be spread among various companies. In fact, realistically speaking it is already quite a challenge to gain an accurate and thorough understanding of one individual company like Interface, Inc. within three months of fieldwork. Hence I acknowledge that transferability may not be applicable for this research. Despite this limitation, a sincere attempt is made to analyse the issues at stake from a broader (theoretical) perspective. Besides a case study enables the generation of much indepth information. A number of respondents has provided personal and at the same time detailed and contextually rich narratives. Such narratives are full of rich data that could indeed provide significant insights and contribute to a broader understanding of how companies can foster sustainability innovation.

Secondly, another limitation is that the research is focused on the Dutch location of Interface, whereas Interface, Inc. is actually a global operating company with locations in 134 different countries worldwide. This implies that there is must be a cultural bias within the research results, because it is unlikely that the 'organizational environment' in The Netherlands is similar to a location of Interface in China or the U.S., despite the fact that they belong to the same global company. As such it is obviously questionable what I can reasonably claim about 'Interface's BOC', let alone about BOC in general. Nevertheless from my case study and the research findings in the following chapter 5 and 6, it will become clear that despite inevitable cultural differences there certainly are features that strongly characterize Interface as an organization (e.g.: the amount of centralization and local autonomy of various business divisions and the prominent role of sustainable thinking within the company).

With regards to how the findings of a specific Western firm can be applicable to other (non-Western) firms, I believe that the emphasis should be put on the question of how innovation processes work and how this is in general related to business organizational culture, beyond ideas of Western or non-Western culture. Such a question is comparable to what effective education entails and what kind of school culture can generally foster this, beyond national or regional cultural identities, customs and values. Obviously the latter will always influence the answer to the question of 'effective education' and cultural influence can neither be ruled out, but it can certainly be asserted that certain characteristics universally will foster effective education and others do not (e.g.: teachers who talk too softly, who write unclearly and are unable to coherently explain the educational material and are constantly distracted by interfering thoughts, do not contribute to effective education regardless of country, nation or ethnic culture). I would argue that it is possible to assert the same for 'effective innovation processes'.

Thirdly, there is a potential limitation of employees providing socially acceptable answers due to the fact that it may be 'unsafe' to honestly state one's opinion and viewpoints especially within a corporate environment. Yet from my research results it will become clear that at least within this particular research, this is not so much the case precisely because respondents have shared experiences about the typical openness and friendliness of Interface's BOC. Perhaps this is also the reason why not a single respondent from the 40 respondents in total objected recording of the interview; literally nobody reacted hesitant or uncertain. Instead most respondents said: 'Yes, that is fine,' 'Sure, no problem'. This already indicated a sense of general openness. Besides as a Dutch citizen myself, I can state that generally Dutch people tend to be rather direct; they say what they think, are down-to-earth and like issues to be clear and straightforward<sup>20</sup>. They tend to value speaking out and individual opinions are considered important. In actually all of the interviews I felt this to be true. With regards to employees it must also be acknowledged that I predominantly interviewed internal people and not external alumni. This could create a bias within my research and it is for this reason that I interviewed one alumnus which enabled me to develop a more nuanced and critical perspective.

Fourthly, the concepts that I aim to research (i.e.: BOC and business innovation for sustainability) are multi-dimensional, complex and neither fully developed within the current academic literature. Moreover these concepts represent social phenomena that are not easily understood within the time constraints given. This is also the reason why I could not delve more into very specific issues that were mentioned by respondents such as the impact of long-term employment and consequently age on sustainability innovation. Hence it must be acknowledged that the broadness of the topic can be a challenge. Finally, my own assumptions, values and personal principles need to be acknowledged, though I have aimed to remain critically aware of this during my fieldwork and my consequent data analysis.

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<sup>20</sup> Several respondents even stated that at least in The Netherlands, Interface should promote itself more: 'We are too modest. Dutch people tend to be no nonsense and down to earth. Yet we could do more to boost Interface'.



## CHAPTER 5 | KEY RESEARCH FINDINGS AND DESCRIPTIVE ANALYSIS

As mentioned in paragraph § 2.2 *'Research implications and main aims for scientific contribution'* my main research issue is business' organizational culture, according to the subjective experience and interpretation of employees across different departments. I also aim to understand business' innovation (processes) for sustainability and what role organizational culture plays therein. It is important to connect this research issue to my case study. As such in the chapters 5 and 6, I will present an overview of the results of my research that was carried out from 11<sup>th</sup> June 2015 until the 15<sup>th</sup> of August 2015 at Interface Inc. in Scherpenzeel (The Netherlands) and facilitated by the manager of sustainable development, Geanne van Arkel.

### BOX 5.1. | FIRST IMPRESSION OF THE RESEARCH SITE

On the 7<sup>th</sup> of April 2015 I paid my first visit to Interface, Inc. for an introductory meeting with the manager of Sustainable Development: Geanne van Arkel in Scherpenzeel, The Netherlands. The Dutch site is the head office and main production location of Europe. Surprisingly enough, Scherpenzeel is a municipality with hardly 9500 inhabitants in total and the entire site of Interface is located in the middle of a neighborhood characterized by inconspicuous residences and front gardens. Green meadows, country houses and built-up areas are in the vicinity of the site. It is remarkable to see that the world's leading modular carpet company in design, sustainability and innovation with divisions in every continent of the globe, is situated here. It must be mentioned though that Heuga used to be located here: a Dutch family company that invented carpet tiles and was acquired as a division by Interface, Inc. in the middle of the 90's.

As I walk on the parking lot I look at the office. The building has a number of solar panels on the left side, but other than that the building seems pretty commonplace. However, the moment I enter the office, I am caught by surprise again. This time it is because of the atmosphere and the 'feel' inside the office. I stand in front of the reception desk and look around. Blank wood and a staircase, a small television screen with announcements, open doors, a plant in the corner, two deep orange and ocean blue fabric benches and a relatively high ceiling. On the reception desk stand some flowers and a statuette that says: Leadership 2014 award. Behind two glass doors is the lunch canteen. The carpet is marked by different designs ranging from a pleasant greyish relief, to greenish stripes and warm orange colors laid out in different directions. This creates a sort of geometry on the floor. All in all, the interior design is not flashy or hyper fashionable with tech-savvy elements. It just feels inviting and open.

Now I remember how I was received the first time when I called Interface, Inc. by telephone. After I shortly explained my research interest to the receptionist, without hesitation, critical questioning or a rather closed attitude of: 'I do not know whether that is possible, I will have to forward your call to someone who can decide upon this', I immediately received the contact details of the manager of Sustainable Development. Already back then I sensed a certain kind of openness, and informality, since I did not expect it to be that easy to get into contact with a manager I had never seen or met. Somehow I realize and sense that whatever the final outcome and results of this case study will be, there must be certain aspects to this company which make it extraordinary; not because I want it to be this way, but simply because I could literally see and feel it once I had entered the building that initially looked commonplace to me from the outside.

After a short while, I meet Geanne van Arkel, the head/manager of Sustainable Development. She is dressed in a simple shirt with a silky glow and sportive, yet neat shoes and trousers. Our meeting takes about an hour and goes pretty fast from me introducing myself, to explaining my research topic and needs and from her already informing me significantly about Interface and her main tasks. Moreover, she was totally fine with me shadowing her for a number of times and did not feel it would be awkward if I would follow her as a silent observant during meetings and daily tasks. We ended with some practical appointments, but two things I will not forget. Firstly, the fact that when I asked her why the company is so willing to open its doors for me as a university researcher and what Interface's interest in this could be, that her answer was: *"Oh, we are already happy if you find your own words to forward the story of Interface."* I remember I was surprised again, as I did not expect a stock market listed company with significant targets to be so welcoming and to have no more interest than simply assisting a rather random MSc student to learn about, but mostly from Interface and to find her own words for it. Later on I have come to understand what the vision is behind 'forwarding the story of Interface'. Secondly, I will neither forget that Van Arkel lent out one of Ray Anderson's books about sustainable entrepreneurship as a means of assistance for my thesis and gave me a beautifully designed bag with: 'Human Nature' written on it to. This honestly did not feel like a marketing tool or as a way of pleasing to me. It just felt sincere, given with ease. The first meeting went rather well and as such I was looking forward to start my case study research.

## § 5.1. MISSION ZERO WITHIN THE COMPANY AND RELATED SUSTAINABILITY MATTERS

### 5.1.1 Common awareness around Interface's vision and mission

First of all, the content of the various responses indicate that basically all 40 respondents know about Mission Zero. It is highly unlikely or perhaps even impossible to work at Interface and to not know or have heard about Mission Zero. This does not mean that everyone has mentioned Mission Zero explicitly. However the majority of respondents mention either Mission Zero or no negative environmental impact in 2020, as the main mission of Interface. On the one hand, this indicates that at least on a surface level there is significant common awareness around the importance of sustainability across departments and hierarchies. This means that it was remarkable to indeed observe that all respondents, regardless of their position within the company, in their own way referred to (different) issues related to the environment when they were asked about Interface's mission. In this sense sustainability is truly experienced as an integral part of the company's identity. On the other hand, ironically enough neither Mission Zero nor zero environmental impact, are really the actual vision and mission of Interface (see box 5.1). Only the manager of sustainable development states that Mission Zero is not Interface's ultimate goal, but the means to achieve higher visionary purposes such as a restorative contribution or transforming the entire industry through leading by example. However, 9 out of 40 respondents also referred similarly to higher purposes, such as this male [marketing]: *'The vision is to be the first sustainable company in the world and when we get there, we do not want to be alone, but with others. Industrials and other companies need to be there with us. And Interface does not only want to be sustainable, so to have zero environmental impact, but the company also wants to make a positive impact; to be restorative.'* Another respondent stated: *'[...] The aim is to make clients and suppliers conscious of the possibilities and finally to show other companies that it is possible, so why would you not do it?'*

Furthermore, there are many subtle differences that reveal different levels of knowledge and a range of interpretations about the content of Interface's vision and mission. Several respondents referred to reducing emissions, becoming CO2 neutral, making products without harmful environmental impact, complete recycling and to the concept of the environmental footprint. There were also interpretations that were highly singular, though most importantly, all answers in one way or another referred to sustainability or the environment. Besides personal differences such as character or educational levels, these singular interpretations tend to result from the fact that employees fulfil entirely different roles within the company at various departments and have build unique skills and know-how. This inevitably influences the way they see Interface's vision and mission. This can be illustrated by a number of quotes. A respondent from finance (male 1) for instance stated: *'The mission is first to earn money, but to do this in a way that is as environmentally friendly as possible. [...] You can build the most beautiful company there is, but you have to make profit.'* A male respondent working at the after-sales department argued: *'Our mission is also to deliver a product that satisfies the client, that is sustainable, including to those customers who are not interested in sustainability. This is because whether you are interested or not in the environment, we can deliver a good product and guarantee quality through maintenance contracts.'* A respondent from the design department said: *'The mission is really to produce a carpet tile that does not have any impact anymore, but that also fits into the human environment. This is called Biophilic design: carpet that is pleasant in terms of sound isolation, colour and feeling.'* Moreover, respondents from the sales department are often relatively knowledgeable, as they tend to know many details and have developed their own vision based upon Interface's espoused mission. For example one talked about the 6 p's of profit, people, planet, production, product and passion and another referred to the seven fronts of Mount Sustainability. This was done by none of the other 37 respondents, with exception of the manager of sustainable development. Informing in an inspiring way is of course part of the daily work of sales personnel, yet their stories and attitude were genuinely enthusiastic. In fact, one respondent (male 1, sales) even argues: *'Two years ago I was interviewed by the newspaper the NRC and the interviewer asked me what I appreciated most about my job, I said: 'That everything which I tell is true. This I find beautiful as a sales man. There is often an image of us being brawlers [...] but our stories are real. As colleagues we often say to each other: Interface is the 'most well-behaved boy of the classroom.'<sup>21</sup>*

Finally I was able to ask 31 respondents out of the 40 interviews in total, to mention three words that typically characterize Interface according to their perception. It is important to emphasize that 'sustainability' has been mentioned 15 times. This basically means that half of all the responses included sustainability. Besides 'innovative' or 'innovation' was mentioned even more than 'sustainability', namely 18 times. Apparently a relatively large proportion of employees see Interface as a rather innovative and forward striving organization. Especially in terms of product and process development it is seen as a company that always questions: 'How

<sup>21</sup> This is an English translation of a typical Dutch expression: 'Het braafste jongetje van de klas zijn'. This signifies a person or in this case an organization, that is honest, hardworking, usually obtains good results (grades) and is perhaps a little too obedient in terms of almost being 'tedious'.

can we improve?’ A respondent (male 1, production line manager) has for instance argued: *‘If you ask me, Interface is a combination of three slogans. ‘There has to be a better way’ from Anderson, ‘Just do it’ from Nike and ‘Impossible is nothing’ from Adidas. When you combine these three you know that it is possible to find better ways, start doing it and just see where we end up’*. Finally, ‘design’ was mentioned 8 times.<sup>22</sup> Employees who did not literally mention one of these three terms, mentioned words that had similar implications such as: ‘frontrunner’, ‘Mission Zero’ and ‘ambitious’ (in terms of commercial sales targets and growth, but also with regards to Interface’s long term sustainability objectives). Several respondents also chose to explicitly refer to organizational culture mostly in terms of atmosphere. 4 times ‘open’ or ‘transparent’ were mentioned. Other words such as ‘informal, social, family company’ and ‘together’ have also been said. Other words such as ‘honest’ (Interface actually does and works towards what is said to be their mission) and ‘admirable’ were also mentioned. These words all seem rather positive. However, there were also more critical remarks. Interestingly enough, one word that was mentioned by three different respondents was ‘cumbersome’ or similarly ‘inert.’ In all three cases this was related to decision-making processes. This implies that even though innovation is an outstanding characteristic according to many employees, this does not necessarily mean that processes are always efficient and that the company operates at its best. It is also interesting to realize that an organization can apparently be widely seen as innovative, and at the same time be experienced as cumbersome. Yet if respondents mention ‘innovative’ it does not necessarily mean that this counts for the organizational culture as such. One respondent (female, legal department) explains: *‘Interface’s development in sustainability is admirable, but I think we are mostly innovative when it comes to our products. Daily tasks and procedures are not necessarily very innovative, but similar to regular companies’*. The respondent who stated ‘family company’ on the one hand argued that this was beneficial in terms of a ‘cosy’ social climate and to a large degree having autonomy in how to do one’s work. On the other hand, in his point of view it also indicates that Interface is not operating as a global company. Decisions and projects are often mismatched between the U.S. and Europe due to a lack of formal standardization, wherein the former has not much insight into what the latter is doing and vice versa. Thus ultimately, viewpoints are much more nuanced than what they appear to be in the first instance. In the next chapter 6, I will give a more detailed elaboration on amongst others these interrelated aspects of social climate, decision-making and innovation processes.

### 5.1.2 Employee engagement levels: meaning and personal lives

Regarding employee engagement levels, it was questionable what it meant for employees to work for a company like Interface, what it means for their personal lives and how actively involved they are. This basically means what the viewpoint and attitude is of employees towards the vision and mission of Interface. Table 5.1 shows several attitudes that resulted out of the 40 interviews.

Attitude and features	Number of respondents	Percentage
<b>Contributors:</b> <ol style="list-style-type: none"> <li>1. Enthusiastic, actively engaged with sustainability and energetic attitude</li> <li>2. Internalized and more specific knowledge of the vision (e.g.: seven fronts, following ecometrics, keeping up to-date themselves)</li> <li>3. Daily and directly dealing with sustainability challenges through their main professional tasks</li> </ol>	<p>13 respondents (i.e.: mostly employees who are directly related to sustainability within their main daily and professional tasks: sales and technical department, process and product innovation, production line managers, production employees and marketing)</p> <p>½ respondent (i.e.: alumnus of Interface who was relatively driven and engaged, because one’s professional function was directly related to increasing internal employee commitment for Mission Zero)</p> <p>½ respondent (i.e.: employee a) who had detailed knowledge also around strategic objectives, because one had a relatively high professional position)</p> <p>½ respondent (i.e.: employee b) who is engaged and is daily confronted with sustainability within the production plant, but who is ultimately mostly occupied with achieving one’s main daily targets)</p>	36,25%
<b>Supporters:</b> <ol style="list-style-type: none"> <li>1. Large to average interests</li> <li>2. Genuinely seeing sustainability as valuable</li> <li>3. At home usually also active (e.g.: mostly separation of waste, carpooling and energy usage)</li> <li>4. Yet are not necessarily proactively engaged with sustainability at work</li> </ol>	<p><b>3 types of supporters:</b></p> <p>1) He/she is currently rather busy or still needs to find his/her way within the company, but personally feels the potential to initiate a project or to become an ambassador = 5 respondents</p> <p>2) Is not so proactive, because there is little direct applicability within the own department/professional function, but if they can contribute they do (less paper printing, less heating etc.) = 9 and ½ respondents (i.e.: employee a) as a member of the HR department should be a spokesperson for human sustainability, but at the same time appears to see sustainability above all in terms of physical-environmental goals)</p>	53,75%

<sup>22</sup> The official three cornerstones of Interface are in fact: (restorative) Sustainability, (holistic) Design and (radical) Innovation

themselves	3) Not proactive in general. Even though they are conscientious about their main tasks and are committed to their work, they are not characterized by a personal drive in general = 7 respondents	
<b>Neutral or indifferent stance:</b> 1. Not so much personal interest in sustainability issues in the first place 2. This does not mean that the respondent could not be proactive regarding other matters	1 respondent	2,5 %
<b>Critical viewers:</b> 1. Agree with Interface's mission and its focus on sustainability, but do have explicit critical remarks and observations	1 respondent (i.e.: opinion that it is a beautiful mission, but that the mission should not be romanticized as 'holy' and that Interface still remains a highly commercial company)  1 respondent (not necessarily proactive, but is actually interested in sustainability. If he/she would have the feeling that they are listened to more carefully, they could be more engaged. It appears that this is mainly a phenomenon among production employees)  ½ respondent (i.e.: alumnus of Interface)  ½ respondent (i.e.: employee b) has posed explicit critical questions especially around information access and daily engagement of employees)	7,5%
<b>Opponents:</b> 1. Strong disagreement with Interface's mission as well as vision to focus on sustainability 2. Negative opinion	None	0%
<b>Total</b>	<b>40</b>	<b>100%</b>

Table 5.1. Overview of 5 different attitudes towards the sustainability mission of Interface incl. number of respondents and relative percentage

Table 5.1 shows that approximately one third of all respondents are highly driven. This is not necessarily due to their personal character, but is also related to their professional function and specific department. I will delve more into this aspect in section 5.1.4. The majority – more than half of all the interviewees, are supporters. Due to various reasons (see table 5.1) supporters value sustainability and are often conscious in their private lives as well, but do not proactively take initiative at work or are not much occupied with it on a daily basis in their work. It is remarkable that there is only 1 respondent who is rather indifferent and not a single one who is strongly opposed. This either implies that employees are hesitant to be opposing as this can be a sort of 'organizational taboo' or that it is truly the case that the company achieves positive results and genuinely intends to do well. The following sections will illustrate that the latter is indeed the case.

*'It sounds idealistic, but I believe this is where we should be going and we are indeed on our way'*

- female (type 1 supporter)

At the same time, it is also conspicuous that only 7,5% actually has explicit critical remarks and questions regarding Interface's sustainability goals. This can either indicate that within the organizational culture it is not 'sufficiently safe' or common to speak up and share one's opinions, that there is an organizational blind spot in terms of a critical questioning of the company's strategy or that Interface truly operates exceptionally well. In the following section 5.1.3 it will become clear that especially the latter two are indeed the case.

Firstly, it can be said that generally employees are sincerely proud of working for Interface or are at least content with the fact that they are working for a company that aims to make a societal contribution, even though the majority said that they did not initially come to work at Interface specifically because of its mission. Levels of inspiration of course differ not only per person, but also per department. For employees working at the finance department their daily tasks are not directly related to sustainability issues and they do not tend to see clients or visitors regularly. In contrast, through the events that Interface hosts or organizes at the Awarehouse<sup>23</sup>, the marketing department constantly comes

*'We are a market leader when it comes to sustainability within the industrial sector. Most people who work in the field of business sustainability know Interface. It is something we can be proud off.'*

- female, marketing

<sup>23</sup> The Awarehouse is an event/conference; meeting and inspiration center at Scherpenzeel where Interface hosts events from external organizations and organizes gatherings themselves. The building used to be an old warehouse that was renovated. It is an important marketing tool to show what Interface does in terms of the company's three pillars of design, innovation and sustainability. It creates an important flow of publicity and visitors. In chapter 6 I will elaborate more on the significance of The Awarehouse in terms of innovation processes for sustainability.

into contact with outsiders who feel inspired and give appraising feedback to Interface's vision and work. The latter inevitably impacts marketing employees in a positive way, but which other employees who are for example working at finance or in the production plant cannot experience as such. Nevertheless, out of the interviews it appeared that among employees a general sense of emotional fulfillment and a form of self-esteem exist due to the fact that many feel that they are working for a company that 'does something extra' and that has achieved significant sustainability targets. It gives a positive and often inspiring aspect to their work. As one respondent (male, manager planning department) argued: *'I believe it is pretty unique that a company has an intrinsic motivation to take the environment into account. It is not why I came here, but it is different from other companies I worked for. Though at my department I cannot contribute so much to sustainability goals, it feels good to work for an organization that truly wants to contribute something to the world. It gives me the feeling that I am working for a company that suits me.'* Finally, a female respondent (marketing) also tells: *'The mission adds another dimension to my work. At marketing we often come in touch with the mission: we are working together to sustain a healthy company that is also beneficial to the rest of the world. We are improving a small piece of the world, which gives makes more motivated. [...] At birthday parties I can tell a longer story about what I do. So yes, it makes me proud that I am allowed to work for such a company.'*

*'I have seen that profit and sustainability can go together. It has been a very good step: we are ahead of our competitors and now also many customers ask about it.'*

- male 2, laboratory

To elaborate on table 5.1, it indicates that 90% of respondents are either contributors or supporters. Especially among supporters there were varying levels. One respondent agreed with the mission, because in comparison to other companies he worked for, he realized that Interface is *actually* doing it and that it is not a form of greenwashing. Another respondent supported the mission because it suits societal trends and another was impressed by what they achieved in 20 years, whereas sustainability used to be a rather 'vague' concept to her and again: Interface *actually does* something. Another respondent said that he supports the mission, the more because it is not a marketing trick. Instead Interface has actual measurable results. There was literally not one single respondent strongly against

sustainability as a higher corporate purpose. Yet there was one respondent for whom it did not seem to make any substantial difference. For her personally Interface's mission seemed to be a far-flung objective. Even though this respondent personally did not feel very connected to the mission, even she still expressed admiration for Interface's business model and their subsequent achievements. Especially the critical viewers are interesting, since their views can highlight important issues that may be overlooked by others. One of them points out that the mission fosters beautiful innovations and large-scale improvements at a product and process level, but this is largely carried out at a higher management level. The respondent thus questions how one as an individual employee can contribute to the mission, since the most impactful steps are made on the side of product and production processes. He struggles with the question how employees can contribute to the mission within their daily work. Knowledge management is highly important for this. However in his perception information (e.g.: latest awards, media coverage, who is a sustainability ambassador<sup>24</sup>) is not easily available in one collective place; it is too fragmented and unclear for many colleagues. Thus to what extent are employees up to date and is information retrievable. In section 5.1.3 'employee engagement levels' it will become clear that this respondent indeed stresses an important issue.

Secondly, even though there are differences in terms of initial sustainability interests (i.e.: some were already personally interested in environmental issues before they started working at Interface, others had come across this during their education and some were never occupied with the environment), at least 22 respondents have argued similarly that they learned to become more environmentally aware in their personal lives, simply by working for the company; also this cuts across departments and various positions. It must be stressed that experiencing positive results and seeing actual improvements for instance in terms of financial gains or better and cleaner production, is essential for employees to readjust their initial points of view and personal behavior. For instance: *'30 years before I never did anything for the environment, I just used the same bag for all my waste at home. [...] In the beginning I was very skeptical, thinking: yeah, right. But over the years we have seen it helps. It goes step by step: several times I noticed we could improve something in our production in this way and then again, in another way. It has created good business results and the quality of the products did not decrease. Then I realized it is indeed possible. Acquaintances say that if you want to be good for the environment it costs money, but I learned that the opposite is true. [...] I also started to give trainings on environmental awareness myself, so I was aware how hypocritical it was that I still put everything in the same trash bag myself. So I gradually started to think about it at home and became increasingly engaged. It sounds a bit sentimental, but Interface has been a teacher, they*

*'Sustainability at Interface is similar to a positive virus; you become a little infected. It spreads itself through the company and at home I am also much more aware now'*

- male, technical department

<sup>24</sup> I will elaborate on the ambassadors' network in section 5.1.3 'Employee engagement levels: individual active involvement'

educated me in this. If I had worked for another company, I would not have been bothered about the environment' (male 2, production line manager). Another respondent (male, IT department) says: 'You become more aware of what you do at home. We separate our plastic. It makes you think'. A female respondent also comments (reception): 'First I did not feel much for sustainability, but I must admit that you start feeling 'begeisterd' (i.e.: inspired). A respondent from the I AM Mission Zero<sup>25</sup> project states: 'First I thought: what a nagger – again some kind of guru we need to follow. Yet it works, the results are good and now I am convinced we need to go into this direction'. Another female respondent (marketing) argues: 'Before I started working here, I did not take sustainability into account. But after five years I have become more aware. Now if I buy something, I also tend to ask myself: is it necessary? We are constantly confronted with sustainability at Interface, so you start to think differently.' A male respondent (laboratory) also argues: 'In the past I was not so occupied with sustainability. Now I also separate my trash at home. I have learned to do that by working here'. Finally a male respondent from Intercell says: 'Through investing in isolation and solar panels at home, I ultimately saved money, just like Interface does. So I am into sustainability because of Interface, but also because it benefits my own life'.

Nevertheless the fact that basically all respondents mentioned they had become more aware about the environment and also started to make adjustments in their private lives does not mean that all employees are actively involved at work in terms of innovation processes for sustainability. It neither means that employees in their private lives are much more proactive (i.e.: setting up community projects, volunteering, no car or air transport) than acting upon one or perhaps several of the following activities: separating trash, carpooling, installing solar panels, economical energy usage, more consideration of buying products and educating their children. At the same time it must be acknowledged that this is probably already much more effort than the societal average. In the next section 5.1.3, I will elaborate on levels of engagement.

In addition, even though all respondents are aware about the prominent role of sustainability within Interface, only 8 out of 40 respondents elaborated extensively on the topic. This means that 8 respondents shared relatively more of their personal experiences and their own insights. It is not feasible to give an extensive account on their responses, but most importantly it appears that what the company has fostered in these cases is a sense of: 'Though it sounds impossible, it is indeed possible to do it differently'; another kind of worldview that is more responsible and aware. One of these specific respondents tells (male, after-sales and technical maintenance): 'In the 90s Anderson's vision had a large impact on me. Back then 60% of carpet consisted out of petrochemical materials. I thought: 'How can he talk about sustainability? Then you had better to stop producing as a carpet producer. So what on earth are they talking about?' Sustainability was still such a new and unknown field to me. I actually discussed this with Ray and he was very open in this, he simply said: 'We need to make sure we gain the support from the entire carpet industry, but that we remain frontrunner'. [...] When we had to separate our waste, we still remained sceptical. Yet gradually the awareness started to sink in and when I looked at my own lifestyle I started to realize that less consumption would do me no harm. I became more aware even when I saw the financial savings at Interface and the fact that it made me feel good to start doing things differently at home as well. [...] In 2000 we gathered at an internal European conference in The Hague and everyone sat on cushions. A huge film screen showed 'The Earth song'<sup>26</sup> and I realized: 'Yes, he is right; the responsibility we do not take is immense.' Of course some people found it exaggerating or believed Anderson lost his senses, but everything he told was true. He never went into extremes.'

The so-called 'It is possible' mentality that resulted out of the interviews with these 8 respondents, illustrate three important orientations that may not be felt by each employee individually, but that seem to be part of a larger cultural system. The first orientation is 'radical courage', instead of always playing it safe. This means daring to do it differently and to not feel determined or limited by financial consequences only. The company is esteemed for its willingness to achieve more than what is expected, that is the willingness to drive an extra mile and then simply doing it through trial and error, while trusting that benefits will result. 'There has to be a better way' from Anderson is a quote that exemplifies a mentality that is focused on daring to face a challenge and being one step ahead even though one does not always know whether it will be a success, just dare to do it anyways. The second orientation is, as the abovementioned also indicates, 'an ambitious vision'. An ambitious vision generally tends to foster scepticism, but when actual results prove the contrary, motivation, curiosity and pride can emerge. The third orientation is 'co-creation', which means that 'it is possible' only through sharing knowledge and lessons, networking with and inspiring other companies, collaboration with stakeholders and even other non-directly related third parties. One female respondent from marketing commented: 'We are aware

<sup>25</sup> The I AM MISSION ZERO videos were recorded in 2012 as an internal research project at five different manufacturing locations worldwide (U.S., The Netherlands, Northern Ireland and Thailand). The publicly available report videos on Youtube, contain interviews with employees to understand what the mission means to them including the impact it had on some of their lives. The overall aim was to engage Interface's employees.

<sup>26</sup> This is a song from the pop singer Michael Jackson that was released in 1995. The video clip shows Jackson in a devastated environment wherein trees are cut, forests are burnt and people are desperately crying for the earth. The lyrics also refer to the profound environmental havoc that humans have caused on the planet.

*that we have to do it together with suppliers, customers and other companies. It gave me such a thrill that recently the European minister of energy spontaneously visited Scherpenzeel when he was doing an European Green Tour or that a group of architects comes to get to know Interface.[...] We make many contacts through international fairs and events, but also through various memberships such as within the Climate Coalition.*

### 5.1.3 'Employee engagement levels: individual active involvement'

In section 5.1.1 and 5.1.2 the following is described: a large majority (i.e.: 90% including those who are daily actively engaged) of respondents agrees with and supports Interface's sustainability goals; employees across departments and hierarchical positions are commonly aware of the prominent role of sustainability (mostly in terms of Mission Zero) and innovation within the company; a significant number of respondents has expressed that Interface impacted their private activities at home and fostered a level of environmental awareness and approximately ¼ of the respondents expresses a fundamental change in worldview and personal growth. These are truly significant achievements regarding the level of employee engagement for a company's strategic objectives.

However, it is still questionable how embedded sustainability is within the organization. 'Embeddedness' can on the one hand be seen from the level of individual employee engagement in terms of actively contributing or being occupied with sustainability and on the other hand from the level of departments<sup>27</sup>. Box 5.3 provides insights around individual employee engagement.

#### BOX 5.3. | 'THERE WILL ALWAYS BE PEOPLE WHO ARE JUST DOING THEIR WORK'

Out of the interviews resulted that proactive engagement\* with Mission Zero is not expected from employees, with the exception of those who are necessarily occupied with sustainability issues through their daily professional function (e.g.: engineering or product and process innovation). This means that it does not have consequences for one's professional function if one is simply doing his or her main tasks well and leaves when office hours are over.

\* Proactive engagement means becoming a sustainability ambassador and/or initiating a (long-term) project or concept.

In fact, at least 18 respondents have similarly argued that obviously not all employees are engaged as 'there will always be people who are just doing their work and that is fine too' or 'everyone contributes in his or her own way at Interface; some more, others less. It is something personal: not everyone is the kind of person who is willing to make an extra step', 'the environment is definitely not everyone's passion, but that should be possible too', 'everyone has the right to be involved, but I don't think everyone is' and finally, 'some colleagues in the factory are very active and thinking along, but most simply do their work, that's it.' Table 5.1 also shows that 7 people from the 21,5 supporters in total, through their responses did not appear to be exceptionally driven personalities in general, even though they are conscientious about what is expected from them in terms of primary tasks. This is approximately 33% of the category of supporters (i.e.: agreement, but simply doing their daily work and not highly interested in environmental issues). According to the interviews, this percentage is higher than in my sample and includes the majority of employees. One respondent (male 2, production line manager) for example states: 'The biggest group only comes to work here. Maybe 20 to 25 production employees from the 200 are really active and contributing ideas. A large group agrees with the mission, but is not generally occupied with it.' Another male respondent (IT) argues: 'We don't talk so much about the mission amongst each other. I believe the majority of employees is not so much engaged that they are constantly occupied with it. I think it is a more a core group of people who are very active'. Nevertheless, even though proactive engagement beyond mere support could certainly be improved, in comparison to other companies it can be argued that what is experienced as 'normal' at Interface is already a large step for other companies in terms of sustainable business.

The fact that there are 'always people who just do their work' is not only a matter of how driven one's personality is. It must be stressed that sustainability is not strictly implemented from above: it is not a harsh

*'Two years ago I won a contest during the Mission Zero week wherein the Dutch astronaut Andre Kuipers visited us. The question of the contest was: How can you integrate sustainability into your personal life?'*

- female 2, marketing

discipline. According to a respondent who already worked for Interface when the company strategically shifted towards sustainability between 1994-1996, in the beginning everyone could become used to sustainability within his or her own tempo. It mostly started with a focus on one's situation at home, one's work and lifestyle. The company still focuses on: what do you think about sustainability; what does it mean to you? One male respondent (after-sales) says: *'Do not push – that has never happened at Interface. Then you foster an attitude of: if you force me, then that is precisely what I am not going to do. Back then the new strategy was communicated mostly through email. Yet they tried to make us enthusiastic, so we could choose to go along. They also provided a lot of examples and visuals to inform people for instance about the impact of yarn or how long it takes before plastic is*

<sup>27</sup> Annex 1 gives an overview of the main tasks of respondents and their related departments. This information has been based upon the interviews and is thus not the result of formal and espoused job and department descriptions.

*degraded.* This implies that as Anderson argued, the company was aware it would not be effective to centrally push and force people. Instead this change in mind-set could only start if sustainability would be closely related to the lives of people themselves. It is thus still the case that employees are not obliged or interrogated if they are not proactively engaged. Yet it is appreciated and obviously the ones who not only demonstrate good quality work, but also show additional proactiveness and commitment are more likely to rise within the organizational hierarchy.

It is important to highlight how Interface started off in the first place and managed to sustain their mission, without strict central guidance and step-by-step implementation of the strategy. Box 5.4 depicts a number of relevant responses from one interviewee (male, financial control) who has been working for Interface for more than 10 years.

#### BOX 5.4. | THE COMPANY'S STRATEGY

- i. It is crucial that the board of directors functioning at the top of an organization stays determined to achieve its objective. 'This was not just chatter. It was Anderson's persistent belief and vision.'
- ii. A mission needs to be very easy to explain and comprehend. An absolute zero-point position is clear and easy for everyone to understand across hierarchical layers. 'Zero is nothing more than zero'. So an industrial engineer is able to grasp it as much as someone working in production. It would be much more difficult to gain widespread understanding among employees for a mission that aims to achieve 30% less environmental impact within 3 years across business units and operations. This would mean 10% less impact every year, which is only 0,75% per month. As such it is more tempting for the organizational members to stay in their comfortzone, because they only need to operate a little less harmful than in the past: 'The point is not to do what we always already did, but to do it fundamentally different. This requires vision. Ambitious goals also stimulate the need to do it radically different. It stimulates the need for innovation.' Besides a percentage is far more abstract than stating an ambitious and challenging, yet clear objective. So everyone who is wasting materials or unnecessarily using heating, knows that he or she is working against the mission.
- iii. From the start the vision needs to be measurable and the results need to be communicated.
- iv. Equally employee engagement and sharing the organization's successes is very important to contribute to the mission.

Furthermore, the fact that 'there are always people who are just doing their work', also means that there are always employees who are doing more than their primary tasks and are highly enthusiastic (i.e.: contributors). Contributors tend to feel much affinity with the mission and sustainability. This is partly due to people's personality, which is interrelated with a person's individual professional function within the company. For example through shadowing the manager of sustainable development, I observed that her work is constantly associated with sustainability and Mission Zero in the sense that her main task is to be a spokesperson for sustainability. She goes to conferences, networks and gives presentations at many different initiatives in The Netherlands such as at Nudge, Beehive, Circular Economy, De Groene Zaak and the New World Campus in The Hague. Obviously as she has been working for almost 15 years at Interface, she has gained many contacts within the European sector of top sustainability professionals. She also tends to have numerous informal conversations with colleagues at different departments, as one of her main functions is to remain up to date about what each department or key persons are currently occupied with. Precisely because she knows what projects various internal departments are working on, she can connect external parties to Interface and vice versa. Also in relation to external parties, I observed that she is intrinsically driven and functions as a knowledge broker who freely shares information and contact details that are relevant. Several respondents have also argued that she is the first contact person around sustainability. Hence it is best to ask her, since she is also able to refer to another colleague again.

*'It's her job to communicate what we do and make external connections. Her function to make other companies acquainted with Interface is pretty unique within the company.'*

- female 3, marketing

*'With Interface I always play 'champions league'. Often we win, sometimes we lose, but the nice thing is that we are always ahead in terms of sustainability compared to competitors and I truly enjoy that we always have a new story to tell about our latest innovations.'*

- male 2, sales

Another example, sales employees are generally also continuously occupied with the mission, because it is part of their work to remain updated and to at least feel sufficiently inspired to network and share the Interface story with potential clients and other organizations. Besides an employee whose main professional function is technical maintenance as well as after-sales client relationships has ample opportunities to contribute to sustainability goals. This respondent for instance tells how he developed the program Re-Use. The quality of used carpet tiles from former clients is usually still too high to either recycle (in fact, it is regarded as a waste to recycle them already) or worse, discard as waste. Through Re-Use Interface cleans and reworks used tiles and sells them again at a lower price. This was done for the office of a health insurance company, which only needed carpeting for 2 to 3 years. The company wanted new carpet, but the respondent argued this was unnecessary as there was an alternative option of reusing carpet tiles. He



convincingly tells: *'It looked fantastic! Not a single moment I regretted my suggestion. It saved them a large sum of money and it is much more sustainable than immediate recycling. This is really the way we think at Interface and it is commercial, because the insurance company appreciated our service. Hence it is likely they will be a customer for life'*. Another male respondent working in a technical field tells how in 1996 an engineer from the U.S. came to count chimneys and to research whether this could be done differently. This inspired him as a person who is interested in technical knowledge and data. Consequently when financial budget became available and he started to discover opportunities for technical improvements that could reduce environmental impact, the mission became a kind of sports competition to him. Finally, another male respondent (technical service and maintenance) argues: *'I find nothing better than innovating. If I only had to do maintenance, I would by long be gone now. [...] And that is the nice thing: that you have a shared purpose and everyone is contributing what they can out of their own level of expertise'*.

It is precisely these employees who are often so-called sustainability ambassadors. Box 5.5 explains this phenomenon and related issues that were expressed by several ambassadors who were also interviewees.

#### BOX 5.5. | 'THE SUSTAINABILITY AMBASSADORS NETWORK'

Appendix I indicates that the only alumnus I interviewed from Interface used to be CSR manager and was amongst others responsible for creating an organization-wide platform among employees to contribute to sustainability. Her objectives were 1) To increase engagement with Mission Zero and how employees could contribute within their own professional role and 2) To increase intrinsic motivation by a thorough understanding of sustainability. As such approximately 10 years ago she developed an ambassadors- and trainingsprogram called 'Fast Forward 2020' consisting out of three levels for the European division of Interface. This program was initiated to realize Anderson's ideas around the importance of the company's vision and mission being lived through and trained on all levels throughout the organization. Level 1 is an introduction to Interface (i.e.: general safety rules, employees' council and a tour through the factory), the concept of sustainability, what it means to you as an individual and to regular environmental practices within the company such as waste separation. It is obligatory and all (new) employees are trained. Level 2 and 3 are voluntary. Level 2 is a functional integration in terms of how one can contribute to Mission Zero within their actual daily work. Level 3 is required to become an ambassador and is available in English through a train-the-trainer construction. This means that internal employees who have done all three levels can educate new applicants. Several years ago trainings and workshops were more available. Now the number of trainings seems to have become less.

In level 3 one is required to write an individual project proposal related to sustainability within one's local working environment and the ultimate aim is to actually carry out one's idea. As an ambassador one can give presentations and tours to visitors coming from various fields: ranging from local and European politicians to students, architects, entrepreneurial associations and corporate executives. Ambassadors are sometimes also asked to participate in think tanks, committees or other initiatives. As such the platform is meant to externally communicate Interface's vision and to share knowledge, ideas and network details amongst each other. In 2008 she wanted to upgrade the program, but eventually with mutual consent she decided to leave Interface. This was because of a substantial cutting in CSR budget due to the financial crisis. Reorganization also prevented that the ambassadors program was adopted in the U.S. Currently approximately 10 to 15% is an ambassador, which is around 50-75 people of the 350 employees in total who are working in The Netherlands.

On the one hand, box 5.5 explains how the company has strived to create a platform to increase individual employee engagement and has thus created a cross-departmental opportunity for employees to contribute in their own way. Indeed at every department there are at least one or more ambassadors. On the other hand respondents who were ambassadors and those who were not, have both expressed similar issues related to the network. First of all, within the organization it is unclear who is an ambassador. Many non-ambassadors do not hear much about the network and do not know whether anything is happening related to it. Neither among ambassadors themselves exists a coherent list of names or a common source of information. This also means that ambassadors cannot sufficiently cross-fertilize, exchange their expertise and brainstorm about ideas for sustainability innovation. Often they do not even know from each other that they are talking to the same external parties. Yet more internal communication and knowledge management could prove to be highly useful. For instance the respondent from the travel department tells that she has many contact details within the hospitality world, which could be interesting for an ambassador from sales as well. It appears that though the concept has great potential to be of use for Interface's sustainability goals, it is not functioning effectively. One respondent (male, process and product innovation) tells: *'It exists for at least 8 years now, but only sometimes we have a meeting and other times the network falls silent into non-active again. During our last meeting we were again searching for the purpose of the ambassadorship program: what is our goal and what can we do with it? What does the network mean to you and how are we going to activate it and in which format? So after 8 years we have not progressed much since we started.[...]Each time we ask ourselves the same questions.'*

*'There is quite a number of ambassadors among us, but which people are all ambassadors? Since the last meeting I have seen many colleagues whom I of course already knew. Yet I did not know they were ambassadors. [...] People are still too busy within their own expert field, we need to make much more use of each other's network.'*

- female, travel

Secondly, another experienced issue is that project proposals may take too long before they are finished (up to 2 years). Hence it can take a long time before people actually initiate their idea. Besides, *'9 out of 10 times a project proposal is written, but ultimately is not carried out at all. It is neither sufficiently communicated within the entire organization who has applied as an ambassador and is writing a proposal'*. According to 11 respondents proposals also often fail to be realized, because daily work is generally busy. This means that lack of time plays a role, especially if one takes into account that realizing an idea will require investment from the side of the employee in terms of lobbying within the organization to be granted money and consequent project management. For example one respondent (male, sales) tells: *'For my project I needed to include people from marketing, logistics and technical experts. So internal networking is hugely important. Yet to do this along my daily schedule was difficult, as I wanted to prevent that the quality of my regular work would suffer from it. It is even more difficult to carry through, because there is not a supervisor responsible for proposals being carried out. You are basically the one responsible for it.'* Realizing a proposal inevitably generates more work that is not part of their

*'The trajectory itself is pretty good. Yet the consequent implementation and internal communication should be improved.'*

- male 3, sales

daily routine. Hence quite a number of people have followed the trajectory trainings, but do not proactively use their ambassadorship to give presentations, tours, talk about it with colleagues or take up another initiative alone or together, because a large number of primary daily tasks also demand their attention. Only three of the four sales employees whom I interviewed were very active as an ambassador in terms of networking, talking with clients and presenting Interface's vision, strategy and results within a wider sustainability network. After all, this is basically part of their daily work.

Shortly, it can be argued that these issues are amongst others a matter of creating organizational practices that structurally support the ambassadors (e.g.: regular meetings, a performance structure wherein for instance 10% of working hours can be freely dedicated to one's ambassadorship) and an improvement of internal communication and a sufficient dissemination of knowledge/information. It is basically a question of how to sustain an internal network that functions well. Moreover, the alumnus of Interface also argues that leaders within the company (i.e.: the top management of around 25 people within Scherpenzeel) need to take more responsibility together for the innovative capacity of their employees, instead of only focusing on their own tasks. She stresses that a clear business goal is to inspire employees and to make them enthusiastic and committed, but that this also means that their needs will grow in terms of support and facilitation. However: *'Nothing concrete is actually happening now and the ambassadors are left too much on their own. They basically do not feel sufficiently informed and facilitated, whereas these are the employees who are really engaged into sustainability.'* As a result processes do not streamline. For example regarding The Warehouse, even though all ambassadors are enthusiastic, there are too few people available to give guided tours to visitors due to work/time pressure. This problem is structural and has been pointed out more than once by different employees. Despite the fact that there were three managers present in the meeting, they did not take up the leadership and initiative to lobby higher within the organization and to find a constructive solution together for this issue. Instead individually they pointed a finger towards the marketing department to solve the problem. The alumnus thus basically highlights that personal leadership of top managers and the strategic collaboration between them should improve: *'The formula of the vision is not complete, because there is no real internal backing of leadership when issues arise. They have the influence to do something about it, but because their primary targets are different they neglect doing so'*. Hence she states that more reflection and time for employees to meet and take up their ambassadorship is needed as well as for managers to take up initiatives beyond their main tasks. Similarly true leadership development in this case seems important to her.<sup>28</sup>

In addition, it is important to highlight the issue of work/time pressure not only in relation to the ambassadorship, but also in relation to Interface's sustainability mission. Since approximately 3 to 5 years, the head office in the U.S. exerts increasing influence and has a more economical strategy, partly due to shareholder influence: targets are higher, budgets need more checking, new products and innovations follow one another at a higher rate, procedures tend to increase, a more prominent focus on quantitative results on a shorter term basis (each quarter instead of per half year) and an increase of tasks and responsibilities. Moreover due to this dynamics, at certain departments professional functions disappear and new ones are formulated leading to new and temporary colleagues. All in all, according to respondents work pressure has increased next to the fact that usually various issues at once are going on at Interface. As a consequence employees are rather busy and at times they feel that they are constantly lagging behind with workload. This can create a more tensed atmosphere. Besides with a rather high work pressure, it is difficult to

*'If everyone is too busy, it is hard to come up with innovations'*

- male 2, IT

<sup>28</sup> The respondent refers to the color theory of Léon de Caluwé. This theory explains under what conditions people change. Yellow: if people understand 'what is in it for me?' Blue: if the goal is clear and the route towards it as well. Red: people change when you reward them through HR instruments (salary, bonus or personal development budgets). Green: if people are motivated and given the opportunity to learn. White: facilitating change by focusing on that which energizes and inspires people. Retrieved from: <http://www.models2use.com/all/management-models-colour-theory-of-change.html>

look at improvements and ideas for possible innovations and to evaluate current processes. One respondent (male 2, production line manager) argues: *'The past couple of years we have been going so fast. We are running from one project to the other. In the past we had a precode, backing and 1 or 2 tuft devices. Now we have an entire precode hall, many more tuft devices and we are busy with Re-Entry, PVB and another major project called FSCK. This creates a lot of work. [...] Thus improving the capacity of existing production lines or maintaining the machine park, do not receive sufficient attention. As such it is always questionable what is best for the company'*. The same respondent argues that precisely because work is rather busy, his priority remains with his main tasks (i.e.: that production lines are working optimally) instead of aiming to improve the general internal communication to production employees, even though he finds this necessary as well. Due to time pressure mistakes can also increase and employees may tend to pay less attention to sustainability, because it is not necessarily part of their primary tasks. One respondent (female, design) states: *'Work pressure could be less, so I have some time to read Dr. Zero'*<sup>29</sup> Another respondent (female, travel) tells: *'As an ambassador I receive a lot of emails, but at times I am already glad if I can finish my work. I don't have time to read all the updates and announcements regarding Mission Zero and keep pace with all innovations. New products come hyperfast. It is just too much!'* Another respondent (male, after-sales) tells that one of his ideas, Re-Use (i.e.: to clean and reuse carpets and sell them at a lower price) gained so much support that he was asked by the Global Innovation Team which is located in the U.K., to present his idea at the head office in the U.S. However he tells: *'I thought: you do it instead, because ideas usually mean extra work. And if I would have to develop the next step, then you think: shit'*.

#### 5.1.4 Employee engagement levels: differences between departments

*'There have been so many product launches, so there has been constant work. We never have time to sit back and reflect what we can improve the next time: what are we doing? What is the direction we want to go, instead of one product launch after the other'*.

- male 2, marketing

Regarding employee engagement seen from the level of departments, the viewpoint of the head of sustainable development is that 'innovation for sustainability' is everywhere within Interface. This means that at each department, there are a number of employees engaged to see what they can do within their work for Mission Zero. This means that 'innovation' is not initiated and maintained by one individual or team. Instead it is embedded throughout the organization. Innovation is thus a phenomenon that occurs at every department. For instance financial experts are looking at new business models, engineering is researching into new production techniques, product and process innovation is looking into the use of renewable materials. To a certain extent it is certainly true that an innovative project or idea can spark anywhere within the organization across departments and each department is thinking along to operate more sustainably. So on the one hand, every department can contribute to sustainability goals in their own way. *'At our department we contribute by doing as much as we can through email and telephone to reduce our paper usage. [...] but as a credit manager building sustainable client relationships is the most important part of Mission Zero to me. I see sustainability less in terms of resources and energy, but more as doing good business by investing in a long-term client relationship wherein we think along commercially and offer support to our customer according to what they need, for instance through flexible and custom made payment terms'* (male, credit management). Other departments such as planning aims to find a balance between the environmental need for ordering trucks that are completely stacked with material supply and the need for an optimal planning that does not lead to too much storage supply; the IT department has a project called Green IT to use more electronic procedures, install fewer printers, no more screensavers and devices that are economical in energy usage. The basic starting point is the less energy usage, the better; the marketing department amongst others uses environmental friendly and mostly local products, encourages visitors to carpool or travel by electric vans and offers vegetarian lunches during trainings and events in The Awarehouse; the design department often advises collections that contain high quality recycled material and ensures that carpet tiles are as economically as possible installed in customers' spaces. This prevents large quantities of cutting waste, which is financially advantageous for customers and reduces environmental impact. A female respondent from the travel department says: *'If possible, we advise and book train travels for Interface's employees. We are also looking at sustainable hotels and electric taxis. Yet obviously because of travel impact we do not book a sustainable hotel 100 km further away, than the nearest alternative hotel that is perhaps less environmentally aware, but in 5 minutes walking distance. Also each quarter we send all the employees' travel miles to the U.S. head office for the Trees for Travel program [...] When there is a client and we know another one needs to go into the same direction, we sometimes request them to wait for 15 or even 30 minutes so they can share a taxi.'*

On the other hand, it is not the case that every department is actually or rather can be equally engaged in terms of sustainability innovation. Certain departments are able to contribute to innovations with much more large-scale sustainable impact than others due to the nature of their work. In fact, the work of a number of specific departments is focused on this. Product development, product and process innovation (PPI), production,

<sup>29</sup> Dr. Zero is a regular email newsletter sent by the internal communications officer in Germany. This newsletter contains all kinds of updates around Mission Zero and sustainability. In chapter 6, I will elaborate on this phenomenon.

technical service and engineering are responsible for a general and regular optimization of for instance machinery and work procedures. Yet research into more experimental opportunities such as bio-based materials and projects to operate more sustainably are a significant part of their daily occupation. Besides employees working at the production plant and related activities have a large influence as well: *'You do see that people are busy with the mission in the sense that everything is recycled in the factory. Nothing we throw away. We also aim to use as little as possible and all plastic and cardboard is separately collected. [...] The bitumen used to be very chemical. Over the course of years this has changed'* (male 2, production employee). The separation of waste, taking into account the procurement of materials, aiming to use minimal packaging materials and to recycle as much as possible are daily practices in the production plant, according to the same respondent who explains that he learned how to look at production sustainably. QESH is a specific department that also checks the factory's waste separation as well as its resource and energy consumption.<sup>30</sup> A number of production employees have also initiated long-term projects as part of lean management.<sup>31</sup> One male respondent from Intercell argues: *'I used to be manager of technical service and we would always look at what production used in terms of water and electricity, and how much waste they produced. I am still trying to find this data for the office as well, because it is less apparent. This also due to the fact that office employees cannot contribute much more than separating waste and being aware of heating and lightning.'*

Indeed employees from more supportive departments argued that their daily work and main tasks are less directly related to sustainability issues. Hence according to their own perception and experience, they cannot always contribute so much to Interface's mission. As such it can be difficult to see if and what they can do within their daily work for sustainability. A respondent from the legal department (female) says: *'Recently I suggested a new system to work with. [...] In that sense I can contribute to improvements. Yet as a legal department our work has not much to do with sustainability issues'*. Another respondent states (male 2, finance): *'As a financial administration we have very minimal to do with sustainability. We are contributing by reducing our paper and ink usage, and we separate our trash, but there is not much more we can do'*. Another male respondent from planning argues: *'It really depends on the department. [...] We have made huge progress with biogas, recylen and other production techniques. Yet the question is how employees can contribute to the mission within their daily work. For example I wonder how much influence my colleagues at customer support have, whereas others such as the head of sustainable development are constantly occupied with sustainability issues'*. A male respondent from the laboratory says: *'Involved' is a too big word for me. I don't think I can have a large influence on the mission. As a department we can only carry out what process and product innovation wants us to test'*. Besides respondents who do make concrete, but perhaps relatively small contributions in their work to reduce environmental impact, often still feel that they cannot change so much at their department. The same respondent from the travel department argued that other than suggesting the railway as a means of transport or booking a sustainable hotel, she cannot do much more. This also means that more supportive departments do not regularly talk about sustainability and Mission Zero, the mission is neither during work consultation much on the agenda. Even the female respondent from HR who in principle should be mostly occupied with organizational engagement among employees and within departments, argues herself that it is not necessary for every department to be involved with sustainability innovation. In her viewpoint it is indeed mostly product and process innovation, engineering and production, which should be highly driven about sustainability objectives.

*'As seen from credit management, I would not know what I could do to improve our sustainability. Give us a laptop and a telephone and we will start working'*

- female, credit management

Nevertheless, in terms of general office practices sustainability is very much taken into account. Even though sustainability innovation may not be equally possible at every department, within the organizational culture it is common to not use more heating than needed, to only put on lights when necessary and as the quotes already indicated to separate all waste both at the office and in the production plant. Moreover the office building itself has a number of solar panels, there is no air conditioning, the interior design is made out of sustainable wood, there is LED lightning and the water on the roof is used for the pond outside.

Shortly, it can be argued that this descriptive account illustrates the following. The majority of employees are definitely supportive of sustainability goals. The idea that environmental awareness is important and useful

<sup>30</sup> A production line manager tells that if the line's energy consumption has been high though the production was not, he will be hold accountable by QESH, which is a cross-departmental program that ensures Quality, Environment, Safety and Health for the two European production plants that are located in Scherpenzeel, The Netherlands and Ireland. QESH will request him to explain energy consumption rates. Or if the production line has been using too much yarn, as a manager he will equally be hold accountable for such matters.

<sup>22</sup> Lean management aims to 'maximize customer value while minimizing waste or rather with having zero waste'. Instead of making improvements in vertical isolation, lean is a way to maximize the flow from production to product or service delivery by a focus on improving the horizontal connections between procurement, production processes, planning customer services and other departments. Retrieved from: <http://www.lean.org/WhatsLean/>

seems to be sustained organization-wide by almost everybody. However individually speaking this certainly does not mean that every employee is actively, let alone equally engaged or constantly occupied with sustainability. In fact, the majority of employees are supportive, but not active (type 3 of supporters). This implies that there is a core group of sustainability champions who are followed by a circle of supportive employees that can become potentially active; the largest circle consists of supportive, but certainly non-active employees in terms of sustainability (i.e.: formulating and realizing a project). Of course there are also employees who do not act out of personal interest or support at all, but simply follow organizational environmental rules and practices (e.g.: waste separation). Yet only one respondent was a little indifferent out of the 40 respondents I interviewed. This indicates that though in many different degrees, most employees feel connected or at least agree with the mission and that environmental awareness amongst organization's members is rather integral to the company's operations. This is also evident when looking at engagement from a departmental level. Sustainability thinking and a degree of environmental awareness is embedded in the sense that general office practices are environmentally conscious and each department in its own way aims to contribute. Even though it may appear small, if every department is consciously aiming to minimize its paper usage, on an annual basis this does make a difference, let alone if the same happens on a global level.

However, the general employee perception is that some departments are much more important and can contribute more than others. This implies that certainly not all employees are nor feel that they can be busy with sustainability in their daily work. It is indeed true that departments such as engineering or product and process innovation are more directly occupied with issues of sustainability and that overall their work has more direct impact when it comes to quantitative environmental improvement and progress towards Mission Zero. These findings are intricate and on the one hand, suggest organization-wide support and on the other hand, suggest that there is only a core group and a number of departments that are actively engaged, even though other departments are aware as well and contribute where they can. I have categorized an alumnus from Interface partly as a critical viewer. She argues that though there is support, only a small group actually comes with new plans and projects. *'It is not the case that everyone is fully living the vision from tip to toe.'* She justifiably questions how people stay committed. Yet in her viewpoint Interface is not organizing anything more special or innovative for their employees than other companies in terms of communicating new awards and grand events in a rather typical American style. This is an important critical remark that I will elaborate on in § 5.4 'Characteristics of Interface's BOC: employee fulfilment, age division and entrepreneurship'.

### BOX 5.6. | 'THE BUSINESS PHILOSOPHY OF INTERFACE' AND SUSTAINABILITY

Out of the interviews I also obtained information regarding the broader vision of Interface around commercial business needs and sustainability thinking. Several responses have pointed out a number of characteristics that I will shortly specify.

- ✓ The main belief is that precisely investing in sustainability can generate cost savings. This opposes the more general business assumption that sustainability costs money and that raw materials need to be sourced as cheaply as possible. 'Sustainability pays off' and as such 'sustainability can finance itself', because of three corner stones: a) whether it is (more) sustainable, b) whether it can be operationalized and maintains product quality c) what can we expect in terms of return of investment within 3 to 5 years. More economical industrial processes through reuse and recycling, resource and energy efficiency, developing products that require less material input and a decrease in waste generation, have created competitive advantage and thus indirectly have created more profit. These cost savings are reinvested again to further sustainability and to ultimately achieve Mission Zero. Besides sustainability has also increased Interface's resilience, because over the years the company has become less dependent on fossil fuels in terms of energy provision and raw materials.
- ✓ Sustainable client relationships: the main aim is not to sell as much as possible in a short amount of time. Obviously large-scale projects are desirable, but Interface does not only focus on the volume of sales. In fact, environmental needs are clearly taken into consideration\*. This implies that profit is important, but Interface does not strive to sell as much as possible, while disregarding environmental impact. Instead environmental sustainability is essentially part of a long-term commercial business strategy. The basic philosophy is that more environmental friendly business operations also tend to reduce customer costs (e.g.: circular business models such as leasing and responsibility for service delivery, cleaning and re-use instead of 'buying and discarding' will most likely become increasingly common in the future). Through advising honest and more sustainable options that are (financially) beneficial to the customer (i.e.: thinking in the interest of the customer, even if it means that the company sells less on the short term), Interface believes that clients will become 'ambassadors' within their own network. Hence it is also a form of building long-term sustainable client relationships that will generate repeat orders. One male respondent (sales) says: 'I do not know one single hospital or office building that is really done when they say it is done. Mostly within 2 years they will return for another product or service. Repeat orders are our life vein'.
- ✓ Genuine sustainability goals are also connected to a commercial business strategy in terms of reputation and brand, goodwill and positive publicity. This means that the 20 years sustainability journey of Interface has become a unique selling point and an inspiring story that marks the company.
- ✓ Co-creation and collaboration: with customers, suppliers and other business organizations. This means that connection to external parties, partnerships and sharing knowledge is highly important. The manager of sustainable development states: 'Early on we realized that sustainability is not only about environmental impact, but also a way to inspire others. It is not a marathon, but a relay [...] We practice a form of old-fashioned entrepreneurship at Interface. This means we sincerely think along with each other and our clients, we see how we can support one another, engage people and share knowledge. This kind of collaboration capacity you also see in nature: briny water contains the highest diversity of species and life.'
- ✓ Leading by example: this means that Interface aims to be an actual business case that proves sustainability can go together with being a commercially profitable company. One respondent for instance argues for establishing an Interface Academy free of charge to educate and train other companies

\* It was Ray Anderson who stated that business must exist for a nobler purpose than profit alone. Even though the interviews indicate that Interface's (sales) targets are increasing since several years and that Interface is certainly a commercial company, profit is not the only objective. For example a male respondent from after-sales tells that after 5 years, Interface usually checks with clients the status of their carpet tiles. 'If Interface would exclusively think in terms of profit, I would say to these clients that within a few years the carpet needs to be replaced. Yet this is precisely what I don't tell them. Due to Anderson's sustainability vision, we always try to extend the product's lifetime as long as possible. So our advice would be to regularly clean the carpet'. Another female respondent from design argues: 'In one project we reused 70% of the carpet and 30% we recycled. So we produced a new carpet, but we tried to reuse as much as possible. This is of course also financially advantageous for customers. So it is not about producing and selling as many new and cheap carpet tiles as fast as possible'. Another male respondent from sales says: 'We need to earn profit with this leasing project, but above all we want to learn from this for next projects and to build knowhow around how to reinstall used carpet'. Finally another male respondent (production line manager) states: 'I believe the goal is higher than only earning money. Our shareholder value needs to increase, because we have the highest market share due to the fact that we are the most sustainable and have viable client relationships. It should not be the other way around: we make as much profit as possible and then we may invest in diminishing our impact.'

## § 5.2. CHARACTERISTICS OF INTERFACE'S BOC: SOCIAL RELATIONS, FORMAL LEADERSHIP AND FEEDBACK

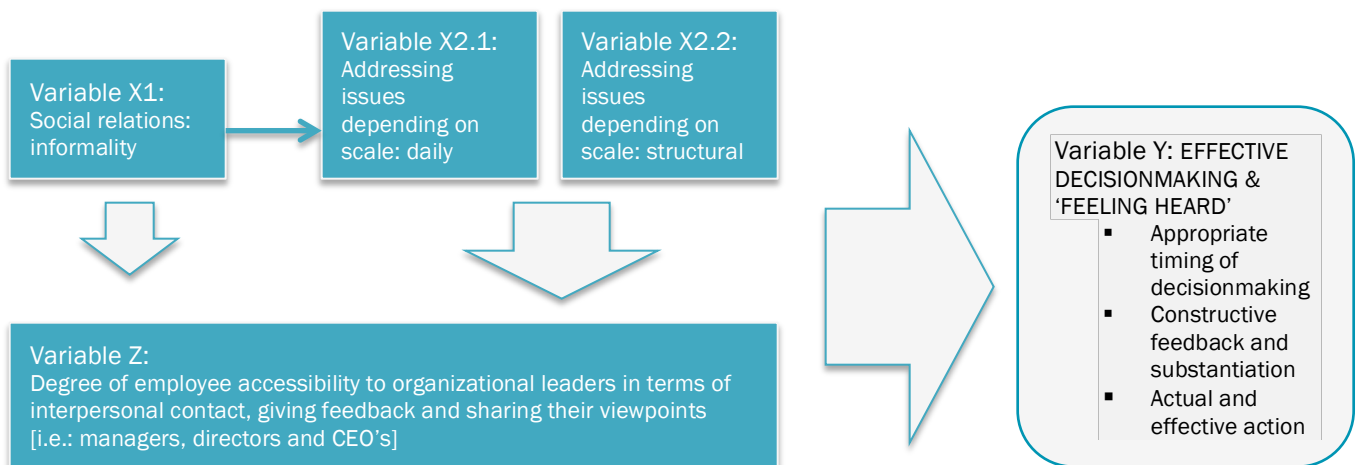


Figure 5.1. Interaction between variables X1, X2.1 and X2.2 & variable Z and their influence on variable Y

Figure 5.1 shows that social relations, that is the degree of informality of an organizational culture (X1) influence the degree of employee accessibility to organizational leaders (Z). The former variable X1 also impacts X2.1: how daily issues are addressed. This means that from my case study it has become clear that the degree of informality impacts how daily/common issues are dealt with (e.g.: getting a letter signed, informal conversations, having a meeting). There is a clear distinction between X2.1 and X2.2 in terms of scale; addressing more structural issues is less determined or colored by the informality of Interface's organizational culture. X1 and X2 (that is X2.1 and X2.2 together) have a causal effect on variable Z. Yet the right arrow is larger, because whether issues are more daily and common or structural, impacts to what extent organizational leaders are accessible. X1, X2 and Z have a joint effect on variable Y: effective decisionmaking and feeling heard. The higher the degree of employee accessibility (that is upward feedback or a clear sounding board), the higher the amount and need for effective decisionmaking. It must be stressed that there are of course innumerable other factors that influence the amount of effective decisionmaking (e.g.: personal character of leaders, communication methods, power relations between leaders and hidden agenda's, shareholders influence, external factors such as a turbulent market) and that the interrelations between X1, X2 and Z is not the only factor that determines Y. Nevertheless, it is not my intention to understand all these factors, since they are part of a much more global perspective. This research is limited to leadership, decisionmaking and feedback on a more local and 'daily' level as experienced by employees themselves. The following sections will give an elaborate textual account on figure 5.1 in relation to my research findings.

### 5.2.1 Informal interaction and social relations

One aspect that unanimately stood out was the fact that the organizational atmosphere is experienced as informal and pleasant. On a personal day to day level, colleagues amongst each other generally experience an amiable climate with an open-door policy across departments. It is experienced as open in several ways. Firstly, even though interaction with other departments is more often work related than typically informal, it is always possible to have a small talk for instance at the coffee corner with people from various departments. Obviously on an individual basis in every organization or group of people there will always be individuals who may not get along so well or have disagreements, but overall there exists an open and social atmosphere. One respondent stated that it feels as an easygoing family company with an international character. It is small enough to know each other and enter each other's office or department. One respondent (male, IT) for instance tells: *'When I started working here, I immediately noticed that it is easy to have a talk here and have a talk there. It feels like a family, because once there are troubles, everyone is willing to put in extra effort and work on it together'*. Secondly, the climate is 'open' in the sense that respondents feel that generally everyone is willing to assist one another. One respondent for example argues that at his former employer people were much more occupied with their own careerpath. At Interface there is not much an attitude of how can I improve at the cost of another. Instead in his perception employees are much more willing to help each other out and are looking at how to achieve objectives together. According to him other organizations would be smart to learn from this. As such it is rather easy and not unusual to ask other people for help as well as to contribute one's ideas and viewpoints. *'Rob's roundup', the monthly video with updates from our European director Rob Boogaard and video messages we sometimes receive from our global CEO Daniel T. Hendrix are always informal, tie-less and starting with: 'Hello my friends'. Rob sometimes also simply presents from his couch at home. This is of course deliberately done, but it indicates a culture of warmth and approachability'* (male 2, sales). Hence employees tend to experience a close and inclusive relationship with one another. Three respondents have also explicitly stated that at least in their experience

*'It is social. Everyone is generally willing to help one another. I can always ask about matters if I need to. I also expect that it did not cost you too much effort to find people willing to assist you with an interview, isn't it?'*

- male 1, finance

there is not much 'dirty' competition or a level of basic distrust that if one assists a colleague, he or she will claim credits for it. One other male respondent (Intercell) also argues: *'With too many ego's the company will have setbacks. Of course ego's work everywhere. This we call sea-gull managers who boost themselves, while they create a lot of havoc and distrust among people. Yet these are passer-bys. They usually leave after 2 to 3 years'*. It seems evident that amongst colleagues, politics is not a major issue within the company although it is unlikely that there are no hidden agenda's or power games at all, especially on a higher management level. Yet as a whole it is clear that the daily atmosphere is not typically competitive, but rather amiable, easygoing and open to help one another.

#### BOX 5.7. | AN INFORMAL CLIMATE

As a participant observer I can affirm these experiences. Almost every employee I approached was flexible, seemed rather relaxed and approachable. This also counts for their clothing style, which is casual and tie-less. Even though not everyone initially seemed very eager to have an interview. Yet if I would ask them friendly either together with the manager of sustainable development or alone, generally everyone was willing to assist me. Employees also easily tend to give their contact details, including those of their colleagues and managers. Basically all respondents brought me a drink before the interview started and some also assisted me by bringing me to the office of colleagues at other departments as a way of snowball sampling. A number of employees neither found it a problem to immediately have a spontaneous interview and except for 3 respondents, for 37 other interviewees it was not a problem to conduct an interview that took an hour of their time. I also spent lunchtime with several of them, while sharing some informal conversations. In email contact people were very informal as well regardless of their position or function within the company. Answers were short, direct and helpful. I also interviewed 10 managers in total. However, even though some employees indeed suggested to me to also speak to directors, this I ultimately did not arrange due to the fact that most of them have a rather busy agenda and are neither always working in the office.

Moreover formal hierarchy certainly exists and employees are hold accountable by their direct supervisor for their work, but many respondents experience a rather egalitarian connection to their manager and even with regards to the board of directors. When it comes to employees and their direct supervisor lines are short. It seems to be the case that it is a rather informal culture, employees can contribute what they think and can freely suggest ideas during team meetings, but also in relation to middle level management<sup>32</sup>. It must also be noted that not one single respondent of the 40 interviewees in total objected against recording the interview, for everyone this was no problem at all. Besides only two employees at a certain point became a little hesitant about sharing more of their critical viewpoints;

*'Rob Boogaard is the European director, but it is still just Rob. Our colleagues in Germany say 'hern direktor'. We just approach him as Rob. It is not a problem at all to walk into his office'.*

- female, travel

whereas with the other 38 respondents I did not observe any particular reservation to simply share their insights and experiences. This strongly suggests that the culture must at least contain and facilitate a certain level of genuine openness and convenience to share one's opinion amongst each other. Several respondents across departments and hierarchies have similarly argued that it is not a problem for them to address members of the board. Though individual differences between boardmembers exist as some are experienced as more approachable than others, generally it is not a problem to walk into their office, share some informal conversation or have lunch with them. Obviously it varies per individual kind of manager how approachable they are and neither all respondents agree with the fact that boardmembers are easily accessible. It is important to mention that respondents who are working on the production side of the organization and not at the office, appear to have more difficulty with simply entering the director's room. A male respondent working in the production plant explains: *'15 years ago there were fewer hierarchical layers. Back then the production director would regularly come into the factory to ask how things were going and I could talk about my vacation or work. Now it is very different. We have team leaders, managers, cross-departmental directors and then we have the director who sits in the European board. Sometimes Ton van Keken (i.e.: the board director of production) still comes in to ask, but then you tend to talk about positive subjects and if I address something, of course I should not expect a reply.'* One production plant employee indeed does enter the office of boardmembers, but this is probably more due to his character rather than common among production employees. This implies that it is also a matter of personality, for some interacting with their CEO's is less of an issue than for others.

Nevertheless it remains remarkable that though not everybody feels comfortable to do so, in principle it is possible to just approach them and walk into their office, without any formal procedure or appointment, the more because in some companies it is not common to talk to the CEO, let alone to just spontaneously access their office. Nevertheless, it is important to highlight that informality does not necessarily mean that employees always feel sufficiently heard or that decisionmaking and leadership are always experienced as effective. 'Simply' stepping into the CEO's room to have something signed, to discuss a certain idea or matter is very different from addressing more structural organizational problems that are experienced. Regarding the latter, it is

<sup>32</sup> Top level management usually consists of CEO's, directors, presidents and vice-presidents. Middle level management consists of managers and senior managers. After middle level management come operational level employees who are actually responsible for carrying out executive decisions.



not the case that employees always feel connected, let alone heard enough to address their feedback to the ones who are important influencers within the larger organization.

### 5.2.2 Formal leadership and 'feeling listened to'

The abovementioned brings me to the theme of formal leadership within the organization, which is essential to achieve an important global strategic objective such as Mission Zero. In terms of role modeling and whether the board of directors embodies and stands for the mission as a coherent team, respondents tend to react affirmatively. However even though Interface's organizational culture is informal, especially with regards to more structural issues employees do not always have the feeling they are heard. For example the ambassadors program and the related issue of work pressure and the lack of sufficient visitor guides, already illustrates that (top level) management is not always functioning well in terms of truly taking up proactive leadership to tackle issues that are recurrently addressed by employees, whereas the former has much more influence. This is due to the fact that proactive leadership is rather tough: it requires one to lobby at higher levels for change, to profile oneself and to speak up at for instance a European level within the organization. Structural improvements, let alone innovations always require time and financial investment. However this is risky in terms of reputation and position, because one may encounter opposition and can thus start to experience disadvantages or be held accountable for certain issues that could go wrong. *'When something goes wrong in a corporate business environment, it is always the case that at least one person will be regarded as responsible and will suffer 'decapitation' (male 2, marketing).* It is thus highly questionable to what extent there indeed is sufficient safety and possibility for engaged leadership at a higher organizational level within Interface. It may be personally advantageous and strategic for individual leaders to 'play it safe', but *'then we are not really working to get the best out of everything we actually can and do with each other.'* (female, alumnus Interface).

*'Everyone is friendly and social amongst each other, also in relation to directors and managers. But are you really listened to?*

- female, alumnus

Moreover several respondents have commented that in terms of long-term decisionmaking the company can make a certain decision with quite some impact, while after a relatively short period of time changing their strategy again. One respondent (female, legal department) says: *'For example, initially deciding that a certain department should grow and then after a few years deciding that the department should reduce its size again. Such changes have long-term impact. Such decisionmaking could be due to the fact that since the past few years the U.S. has a more global economical strategy, but sometimes policy speaks against each other. So we can see arguments for doing one thing and the next time we see similar arguments for doing the opposite thing.'* Besides a respondent (male 1, IT) who is also part of the employees' council argues that it often takes (too) long before the executive board makes a decision regarding employees' issues that have been pointed out as problematic. An example is that it took at least 2 years before any decision was made regarding the possibility of remote working. Usual explanations are that the board is occupied and busy, but that they will indeed look into such matters. Another example is the fact that work pressure in the production plant has been high for already a longer period of time leading to structural overwork. The executive board consents that they will intervene and ultimately they will make and substantiate their decision, but according to the respondent this could be done more rapidly: *'Of course they will reply to the employees' council that they are working on it, but that is not always the case. It is always a matter of awaiting and seeing if and when steps are undertaken.'* Another respondent (male 2, production plant) points out that hierarchical layers can also be an obstacle: *'If the board of directors says that they do not hear any complaints from the production managers, then it becomes difficult to make clear that work pressure is becoming too high in the factory. Luckily the board became aware of it themselves and decided to hire an extra team.'*

The same male respondent from IT also tells: *'We anticipated problems with automatizing a storehouse and the expensive network lines that would be required for it. As a team we wrote a letter to Rob Boogaard, but unfortunately he only communicated an answer to our manager and not to the team itself.[...] At a conference in Paris we encountered him and a director from the U.S. We communicated our worries and the technical risks we foresaw. It is an open culture, so they listened to us, but I have no idea if they did anything with our advice. Of course the director has replied that he will take this issue to the American board, but in the end you never get an answer.'* Another respondent (male 2, laboratory) argues: *'Of course I sometimes hear that production employees do not feel listened to. Perhaps they also tend to feel this, because they are working in the factory and are often less educated than those working in the office or at higher level management.'* Both production employees whom I have interviewed indeed independently argued that their managers do listen to them when it comes to smaller issues such as installing better lightning or problems with the machinery. However, other suggestions or more work procedural ideas for structural change are not always listened to nor sufficiently well managed in terms of feedback and timing. One of the respondents tells that once he had a disagreement with a production line manager about changing arrangements within the hallway factory, because of safety reasons. The next day the manager had simply changed it, without communicating to him as an employee why he did so. The respondent tells: *'I would have experienced it very differently if he would have come back to me the next day and would have told me the reason for*

*his decision.* Even the head of technical service and maintenance argues himself that communication and leadership are not always effective: *'If production employees do not feel sufficiently listened to, I can only say that this true, at least in their experience and this is already a negative sign. Communication and feedback to questions is important for employees to feel engaged and listened to. Even if it takes 3-6 months before a response can be given, it is important for team leaders and production line managers to simply communicate this. I don't know why they don't always do this, perhaps they are too busy [...] Some projects and necessary changes also take too long. One time we had problems with heat and stench. It took too long before any action was undertaken. So I independently decided to do something and placed some air-grids.'* He also admits that he wonders whether it is actually clear for every production employee how to give feedback and to whom. In his point of view this also partly depends on the communicative skills and management of production line managers and teamleaders. Viewpoints inevitably differ per person, in contrast one production line manager for instance stresses how much he stimulates his employees to come with suggestions and how he consequently acts upon them: *'I don't let people uninformed by saying we are going to do it, without actually referring back to it later on or taking consequent action. Otherwise I'll lose my credibility. [...] During teammeetings I do try to challenge them, by asking: how does it go? What goes well and what does not? What would you do differently?'*

Moreover there is not necessarily possibility to express criticism to leaders at influential positions. Though 'dirty' politics and competition among colleagues does not seem to be common, at higher levels in the organization it is unlikely that there is no stronger force field. Most employees do not directly come into touch with power issues at higher organizational levels, but inevitably such issues do exist. Indeed one respondent stated that one of his current colleagues in the laboratory used to work at process and product innovation (PPI). Yet one time the end product appeared to be flawed. This turned out to be a very costly mistake. It was the European cross-departmental director who had final responsibility. However due to his influential position it was decided to downgrade the employee at PPI instead to a lower functional level. The alumnus of Interface also explicitly pointed this out. She stated that internal relationships and decisionmaking power are not always transparent and that one's ideas can be threatening to the agenda of others.

So with regards to more structural issues that necessarily include a number of hierarchical layers, it is probably less easy to give feedback and actually feel listened to. Interestingly enough the alumnus from Interface was the only respondent who actually gave a thorough critical analysis. She stated that in her experience, Interface has a culture of doing it well and right, but not of showing real vulnerability. When it comes to smaller issues, action is usually immediately undertaken. Yet more structural issues that keep on returning (e.g.: for 6 years in a row) such as the issue of work/time pressure in relation to the ambassadorship and the lack of visitor guides, are not proactively picked up by organizational leaders. This is because in her viewpoint, Interface especially as an American organization tends to focus on optimism, pride and successes and tends to be less comfortable with its structural weaknesses. She argues: *'As an employee you mostly hear the success stories, but less attention is given to 'what hurts' and what does not go so well is not sufficiently trickled down into the whole of the organization.'* She also critically questions whether employees are aware of this themselves. In this sense she aims to point out a potential organizational blind spot, which is related to the fact that there is a significant number of employees who already work at Interface for a relatively long time (i.e.: more than 10 years up to 45 years): *'If you work for more than ten years at a company that mostly shares its awards, innovations and successes, then you can forget the more critical issues; the more because a lot of older employees enjoy their autonomy and simply accept other issues that are structurally going less well'*. Another respondent (female, credit management) also stated that she found it remarkable to see that there are so many colleagues who are already working for a long time at Interface: *'Quite a number of employees already work for such a long time here. I have never seen this before at another company.'* In her viewpoint this can create an organizational blind spot for 'how things work here': *'It seems as though production and planning are working smoothly, but that is because we are used to a product delivery within a maximum of three months. Yet we don't have any data or knowledge about how many potential clients we lose, because they find three months too long.'* § 5.4 will elaborate on the issue of employee turnover and the retention of young talent.

In short, the abovedescribed analysis and quotes illustrate an issue that is probably common within many larger companies. Though not every individual employee will experience this similarly, in (larger) companies it is common to find a sense of dissatisfaction among personnel regarding effective decisionmaking and being heard and acknowledged by leaders higher in the hierarchy. Thus despite the fact that Interface has a forward striving and world changing vision and mission and is characterized by a high level of informality, helpfulness and friendliness, it certainly should not be assumed that daily leadership is always effective in terms of actual action, timing and feedback nor that it is always open to criticism when it comes to structural issues. As one female respondent (credit management) comments: *'They are approachable, but you never know whether they will feel threatened if you start lobbying strongly for a certain organizational change. It is always a question whether it is better to solve a problem together on the shop floor or if you need to address them'*.

### 5.2.3 Centralization and global strategy

I shortly like to elaborate on the issue of the American head office in relation to the EMEA division, which is in this particular case study above all Europe. It is relevant to touch upon this issue, because organizational structure and the level of centralization influence innovation processes as well. Originally Interface was strongly focused on the local responsibility of divisions and their autonomous decisionmaking in terms of strategic goals, local ambitions and conditions. Even though targets are set in consultation with the U.S., divisions still have the power to formulate other (i.e.: lower) targets as long as they convince the head office of their strategic reasons. One respondent (male, financial control) argues: *'You cannot determine from Atlanta what the best choices are for Interface Thailand. Interface has always strongly looked at: how does the local culture work, what is our target and how can we achieve this best here?'* One male respondent from IT also tells that approximately 10 years ago, each department received a budget and could decide themselves what projects they wanted to do. Now the U.S. has to authorize projects. The head office has become much more directive. He says: *'In the past we did not have to account for our costs, only the European board of directors did. We received a budget with some leeway and we could simply do whatever we wanted. We had almost no contact with the Americans'*. This divisional autonomy has equally led to a large autonomy as well as responsibility of managers in terms of formulating their targets and their way of how to achieve these. This relatively high local sense of autonomy also implies that organizational culture in different European countries must vary, let alone in other continents such as Asia and Africa. One respondent for instance tells that employees in Germany are much more hierarchical than they are in The Netherlands due to the fact that Dutch people are generally more 'direct'. However already in section 5.1.3 'Employee engagement levels: individual active involvement', I explained that the American head office is since several years deliberately and gradually directing towards a more global, centralized and economical strategy. Next to an increasing work pressure, respondents have critically reflected on the influence of America. On the one hand, more centralization can certainly increase efficiency, the more if continents would start to cross-fertilize more and exchange best practices and innovative ideas amongst each other. For instance the female respondent from travel tells that the U.S. does not have a travel department. As a result an American secretary once needed to plan a global meeting, but she did not know about the existence and expertise of the travel department in The Netherlands. If the secretary had known this beforehand it would have made the entire planning much more efficient. Another example is that official declaration forms already exist in the U.S., but are amongst others still lacking in Europe and Asia. With more centralization, internal processes can become more efficient through standard systems and protocols, which could also foster more global collaboration and contact.

*'We don't have a global HR program from the U.S, but just 2 months ago they required a chief HR officer. If the objective is to create more synergy between countries I believe it is a good development. Yet if we need to do everything the way America wants it, I don't think it is such a good idea.'*

- female, HR

On the other hand, centrally guided uniformity can also foster mismatches and is often simply impossible. One respondent tells (female, marketing): *'The American influence is not always beneficial. Europe has so many countries, so you cannot copy an American campaign onto Europe as though it is one country. There are so many different languages, legislation and local market needs. The U.S. sometimes overlooks this regional influence'*. Another example is that the head office aims to facilitate one WiFi network or the same telephone supplier for the whole of Interface, but this is impossible due to varying local conditions and possibilities in different countries and parts of the world. Another respondent (male 1, IT) justifiably says: *'There is more standardization coming from the U.S. Yet I don't see this as something 'global', because global would mean that organizational changes could also be coming from Europe or Asia. They don't have to come exclusively from America'*.

## § 5.3. CHARACTERISTICS OF INTERFACE'S BOC: COMMUNICATION AND COLLABORATION

### 5.3.1 Internal vertical and horizontal communication

In addition, 29 out of 40 respondents have explicitly made comments or stated that internal communication in general (so not only with regards to the ambassadorsnetwork) and cross-departmental collaboration should improve, at least specifically within the Interface office and production plant in The Netherlands. Internal vertical as well as horizontal communication flows are often an aspect that needs improvement within companies. According to the female respondent from HR and one male respondent from financial control, the formal vertical communication structure happens through the (European) executive board, which has a number of direct reports (i.e.: managers). These direct reports need to translate the information to their own teams or departments so that the entire organization is up to date within 3 to 5 days after the first official information sessions that have been given by the board. It is argued that Interface is not characterized by exclusivity. Instead employees need to have the same level of knowledge.

Nevertheless according to respondents, in reality Interface sometimes functions as though it is a small company in terms of matters that need to be centrally communicated to the entire organization at once. This means that employees discuss matters in smaller units instead with all relevant parties, communication comes too late, nobody seems to know the exact details or it is unclear who has final responsibility for a certain organizational change. A male respondent from marketing gives an example: *'We only recently got google drive and docs globally, but then we do not receive any communication around how it works, nor a short explanation video or advice on how to use it at Interface.[...] If we get a new tool, we simply receive a username and password. For the rest it is a matter of figuring it out for oneself how the tool works. I tend to do this, but consequently I am helping out my colleagues as well, which is not really my main task. In this sense Interface does not seem to function like a corporate.'* Another respondent almost giggly tells how remarkable it is that Interface is a global company, but that an important matter such as the introduction of a new invoice system coming from the U.S. is not even necessarily well structured and communicated; this evidently causes problems, because some departments are using the new system and others are not. Finally a female respondent from credit management says: *'I have experienced software implementations in other companies which were much more centrally guided step by step [...] At Interface the head office in the U.S. makes a decision, but it is expected that we simply solve executive problems ourselves; management won't help you with this. Sometimes it is even better to just make a decision yourself as a department team, instead of waiting for official centralized assistance. I find this typical for Interface'*. Moreover it is remarkable that on the one hand Interface is a worldwide frontrunner in terms of carpet design and innovation processes for sustainability, but on the other hand seems to lag behind in terms of very basic communication matters. The same male respondent from marketing was for instance pretty astonished to discover that Excel sheets which are used for declarations could not calculate themselves yet, that Google drive has only been installed recently worldwide and that email communication is rather inefficient: *'If we would receive a training on how to deal with emails and that this should be done twice a day instead of all day long, we could work much more efficiently'*.

*'It is a very open culture, everyone is willing to assist you, but official communication about large organizational changes can be limited. If you really want to know something, it is best to talk to your colleagues in the office corridors'*.

- female, credit management

Apparently internal vertical communication can also be a bit clumsy: sometimes information is shared that seems irrelevant and other times one really needs useful information that is not communicated officially (i.e.: vertical communication). The latter is an intricate matter. One respondent (male, marketing and internal communication) says: *'I am glad when ultimately decisionmaking changes and we have not officially communicated anything yet.'* He tells that indeed internal communication is not always sufficiently fast or comes simply too late, especially when information is already buzzing in the office corridors. However certain matters cannot be communicated earlier. This can have various reasons such as consent has not yet been given, a number of relevant parties still needs to be updated or it is not yet certain what the final decision will be. A female respondent from HR argues that widespread organizational communication, which is effectively cascaded down and picked up by organization's members, is in itself an expert job. It must be acknowledged that internal communication is inherently a complex matter: it is always a question of what precisely should or can be communicated, what should remain confidential because of strategic reasons, what is the right timing to whom exactly and what communication means are the most effective. Especially if there are several hierarchical layers, there is always an issue of information being interpreted numerous times leading to a distortion of the actual initial message or that information is not being communicated at all to the bottom layer. Yet it must be stressed that internal vertical communication problems are not due to the fact that Interface is characterized as a closed culture wherein organizational information is largely concealed, at least not in the experience of employees. The only thing is: if you want to know more, you frequently need to arrange it yourself. Generally employees do feel that if they want to know about a certain matter, they can talk about it among colleagues or ask a relevant person.

Also regarding internal horizontal communication between departments, one respondent mentions: *'To me this feels as a gap between our shared sustainability vision and the daily go abouts. I do not hear enough about other departments at the office, because we are located in the Awarehouse. So our connections are less direct. This means that I often have to go around myself to know what is going on at other departments'* (female, marketing). This gap inevitably impacts and is interdependent with the amount of cross-collaboration between departments. It can be stated that overall departments do not cross-fertilize and collaborate sufficiently. Certain departments indeed have to work together such as the PPI, product development, the laboratory, planning and production. It is especially these departments who are directly interdependent. For example the laboratory tests all materials and newly developed carpet tiles coming from PPI and production and consequently writes reports that are needed for product development as well. Other

*'You can always walk to a colleague for a short conversation. But in terms of work, departments are operating as small islands. So it feels as though we have more connection on a personal level, than work content wise.'*

- male 2, IT

departments also collaborate such as sales, design, customer service and production in order to achieve more complex tailor-made projects for clients.<sup>33</sup>

*I believe most people are not used to a project management culture.*

*This is something we can improve: how people act and what they are used to. The steps, phases, preparation and making appointments; it is often too little crystallized. Usually it is a matter of: we'll just start and see where we end up.'*

- male 1, finance

One respondent from after-sales also tells that he needs to discuss and work together with product development and design, for instance to determine how new products are received after installation and how a new design should be technically placed. Nevertheless from a more systemic 'cultural' perspective, there is a general tendency for every department to focus on its own tasks and to do's, while not sufficiently taking into account the overarching picture of the entire organization. The fact that certain teams and departments are spread over diverse countries in Europe makes it even more difficult. For example one respondent (female, credit management) argued that departments have budgets and sometimes make a decision without taking into account the consequences for other departments. This means that instead of streamlining projects among several relevant departments, departments often need to figure it out for themselves how to deal with the effects. A respondent from IT gives a concrete example. Instead of conferring about the practicalities with the IT department first, marketing placed two television screens at the reception entrance. Only afterwards they requested if IT could connect these screens to a computer, which was not as simple as it appeared to be leading to a number of practical challenges. One of his colleagues also tells: *'A year ago engineering started a project to rebuild a part of the production plant. Instead of involving IT earlier in the process to remove certain fiberglass systems, required adaptations from our side were communicated too late. We also first have to know: What is needed? What is the actual idea? And sometimes decisions are already made that limit our options. Once in a while it can also occur that other departments ask us if 'we can arrange or remove a system by tomorrow?' [...] But equally our department sometimes also communicates to a too small group of individuals the introduction of new systems. We have been talking about how to improve communication, but due to the issues of the day it is often forgotten.'*

### 5.3.2 Cross-departmental collaboration

Cross-collaboration between departments has been a topic of discussion among a number of employees. There is a common question of: how to create a climate wherein you can actually find one another, how to generate knowledge about the responsibilities of colleagues from other departments and what they are currently working on and who to approach for relevant information when needed. This can foster mutual assistance of another. At the same time it is questionable how to create such a climate, because *'it is not possible to have a weekly meeting with 350 employees around the table in order to know what everyone is doing, what he or she can offer and who can help you with a specific problem'* (male 2, planning). Already from section 5.2.1 informal interaction and social relations, it became clear that if one needs help one will truly be assisted by others. Nevertheless, besides the need to increase cross-departmental collaboration, there is neither much cross-departmental reflection and evaluation on each other's work in terms of: how could we improve our work procedures together or tackle common issues?

It is important to emphasize that on the one hand, on a management level there are indeed cross-departmental meetings to develop and decide upon strategic baselines that are communicated to each department. So for instance the director of technical development (i.e.: research, engineering and PPI) is meeting with the head of production and the manager of marketing. On the other hand, meetings among the employees who daily need to carry out executive decisions and who are knowledgeable about practical details are happening, but are not necessarily common. More vertical and horizontal communication can be practically useful. One respondent (female, marketing) for example argues that it would be good for the marketing department to include and directly talk to the employee from PPI who has researched a new production material called PVB in order to create a campaign with more specific information. She also questions why this same employee is not included into meetings on a management level that revolve around the PVB project. This is because he is the person who knows all the details and has expert knowledge, which amongst directors is lacking. Besides, though it is likely that this is a common issue within organizations in general, horizontal communication can to such an extent be limited that individual employees feel neglected and a little subordinated, the more because in a larger organization like Interface it is unlikely that the small number of (cross-departmental) managers all can have a personal connection to approximately 200 production employees. Two male respondents (laboratory and production) for example tell that engineering sometimes introduces a new device without initially inviting the employees who are ultimately the ones whom daily need to work with the device. This means that a number of people are introduced to the new device, but the ones who actually need to work with it feel excluded. One respondent (laboratory) argues: *'Engineering probably just thinks: they are simply the ones who carry it out. So*

<sup>33</sup> An example of this is a large scale project for CapGemini. The external architect had designed a rather complex size and color of carpet tiles. Then sales, production and design at Interface had to discuss whether it would be possible to realize this project together in terms of production capacity, duration of delivery and design techniques.

they install a new machine, and the basic idea is that we go and work with it and it is done. However we need to communicate much more between office departments and executive departments working on the shop floor, this is beneficial for the company'. The male respondent who works in the production plant says: 'I can imagine that the head of technical service and maintenance experiences communication differently from us, because he is much more directly in contact with engineering. Moreover I only know the head of technical support, because he serves in the employee council like me. Otherwise I would not even know him personally'.

## § 5.4. CHARACTERISTICS OF INTERFACE'S BOC: EMPLOYEE FULFILLMENT, AGE DIVISION AND ENTREPRENEURSHIP

### 5.4.1 Employee autonomy

Despite the abovementioned issues, basically all respondents do experience working at Interface as fulfilling. This is mostly because the culture is characterized by a large sense of employee autonomy. This counts for employees across departments and hierarchies. Different expressions of employee autonomy that have been mentioned by various respondents, can be summarized as a sense of having the freedom and ability to determine oneself how to do one's work instead of highly fixed procedures, to structure one's own working hours, to be able to independently make decisions without constant consent of supervisors and the space to initiate projects and to organize work differently if this leads to improvement. Besides there are flexible working hours. This means that employees are free to come and go whenever they want, as long as employees work approximately 8 hours a day. One female respondent (credit management) tells: *'Interface functions pretty unstructured. Yet at my former employer all the work: 'how and when' was completely predetermined according to procedures and was executed exactly as official decisionmaking had formulated. I could never do anything in my own way. For the organization this is highly efficient, but it makes work boring. It lacked challenge. [...] At Interface there is much more freedom, it keeps it interesting. You can basically do whatever you want, as long as it contributes to the company'*. Another respondent (male, financial control) states: *'Of course I am hold accountable for my targets, but there is space to determine my own strategy and find possibilities. I have the freedom to do the things I want to do. At other companies it used to be more strict: this is what needs to be done, he needs to arrange this according to these rules, ask him to tell you what to do and the like'*. A female respondent from design tells: *'[...] There is a hierarchical structure, but in your daily work nobody dicates what I have to do. I can plan everything myself, as long as I show my projects and results'*. Another male respondent from Intercell says: *'There are procedures, but we are given the space to determine parts of our own work. So I invested in research, I wrote things for the website and made experiments myself'*. Another female respondent from marketing says: *'There is a lot of enthusiasm and possibility to initiate things. Every year I developed new tasks: there is basically space to design my own function. It is what keeps me here.'* Also respondents who are less content with leadership, inclusion and communication similarly argue that despite these issues, it is a *'good company. I have worked at other departments before I started in the laboratory, but everywhere I learned quite a lot and experienced the freedom to initiate things myself'* (male, laboratory). *'I feel valued by Interface, because I can do and say what I want. We are allowed to contribute ideas. For example RE-Entry has been a program I really strived for within the organization. I developed all maintenance concepts under the idea of Floor Care as a form of service delivery'* (male, after-sales). This amount of autonomy implies that self-initiative is important as one respondent argues (male 2, finance) argues: *'I do not have the idea that somebody tells me I need to do this and that. In fact, this is not at all the case, it is rather the case that I need to solve issues and find solutions myself; my manager is not doing this for me. If I have an idea for my own work, of course depending on what kind of idea it is and the scale of impact, but in principle I would just do it without even telling my manager.'*

*'I like my job. There is freedom to initiate improvements and to organize things differently if we want to.'*

- female 2, reception desk

These quotes illustrate that autonomy also requires employees to be rather self-reliant, to maintain their own flow of work and tasks, to be responsible for documentation and that they can, but sometimes also have to have the ability to make their own decisions without consent. It must be stressed that though autonomy is generally highly appreciated by respondents, two respondents have made critical remarks related to cross-departmental collaboration and a degree of autonomy that seems to be counterproductive. One respondent (male 2, IT) says: *'Because of this individual and departmental autonomy, we run the risk that departments are not sufficiently geared to one another. So sometimes we don't know who is responsible or we don't communicate effectively. In this sense we can operate as a company that is neither a SME nor a multinational.'* The alumnus of Interface argues: *'[...] the amount of autonomy at Interface is off balance. There is nobody who will tell you what to do which creates a beneficial sense of freedom for employees. Yet there is also nobody who will challenge or question your work. As long as you meet your targets, you can do your own thing. So if processes or your work is going less smooth, as long as you don't mention it, you can prevent yourself from being criticized or you can even react defensively by saying: 'Don't touch my freedom!'*

#### 5.4.2 Personal development, career satisfaction and the retention of young employees

Furthermore there is opportunity for employees to develop themselves through taking additional courses and external trainings. I was able to ask 22 respondents and though not everyone had followed an additional course, respondents reacted affirmatively that it is possible at Interface to send an application, which is mostly granted as long as it is related to one's professional function. One respondent (male 1, planning) tells: *'On all*

*Trainings you want, you can simply apply for. They don't make a fuss about that as long as it suits your function. I have followed a masters' program communication in the evening, graphic design, English and French and acquisition courses. Everything I applied for was granted'*

- female 2, marketing

*levels we get the space to develop new things.[...] There is a personal development budget. If I would want to do something, I would have to go to the director and I am sure he would say: go for it'.* Another male respondent from Intercell tells that in the 45 years that he is working at Interface, he has never received a rejection to take up projects and courses. He states: *'I really received the space to develop myself and that is so beautiful about this company'.* Other respondents have also commented about obtaining educational programs through Interface and following various other courses. Thus again as long as employees are sufficiently willing to take initiative themselves, are proactive enough to state what their interests are and as long as these are reasonably related to their professional function, there is much opportunity to develop oneself.

At the same time despite sufficient autonomy and space for personal development in terms of trainings and courses, it is remarkable that especially younger employees from the sales and marketing department tend to argue that coachings or long-term opportunities for pursuing a clear career path could increase. At the same time, there also have been respondents who have been working at Interface for at least 10 years, and who explicitly mentioned how they have grown into different functions, how much they have learned from Interface and who did not seem to feel that career possibilities were unclear. The respondent from HR argues that if one is proactively addressing one's ambitions one will certainly be listened to. Yet this does not necessarily mean that such ambitions are easily formalized. One respondent (male, marketing) shares his viewpoint: *'Interface has a huge sustainability mission in terms of the environment, but they haven't realized this for people yet. I am sure that the HR department is open to talk to us, but bringing about a structural formal change is more difficult. In my opinion we need a more strategic HR approach. Instead of headhunting for top level management outside of the company, why don't they develop a future development program so that internal people can be promoted.'*

*'There are promotion possibilities, but we are not coached in this a lot. Sometimes I miss planning: I needed to wait 1,5 years for my new function profile'.*

- female 3, marketing

This issue is related to attracting and keeping young talent. It is mostly younger respondents who have pointed out that the average age of the organization's members is relatively high. *'It would be more balanced if there would be more younger people working at Interface'* (male 2, manager production line). As the alumnus of Interface argues, younger employees are also important because when people work a long time at a certain company, at a certain point they may start to lack renewal, become less critical and are routinized. However, at the same time one respondent (female, HR) justifiably points out that people are not necessarily proactive and innovative, simply because they are young. In fact, she argues that they have had young employees who did not demonstrate much eagerness to develop and to initiate projects, whereas there are many older employees who may already work for a long time at Interface, but are still very committed. Also in her viewpoint it never has been too difficult to attract young people. It is also important to take into account that managers need to agree with recruiting younger employees who obviously need more support and still need to learn: *'I have quite some influence on the company's culture through my recruitment policy, but managers are ultimately responsible for the quality of their team. So I can be very enthusiastic about a young a person, but the manager is the one who needs to work with this person. So if he or she doesn't agree, we have to choose someone with more experience.'* Interface actually started with a Young Potential Program recently. Box 5.8 gives a short explanation.

#### BOX 5.8 | THE YOUNG POTENTIAL PROGRAM

The first pilot of this training program has been carried out with 12 employees from various departments who are working less than 6 years within the company. Employees from the entire EMEA division (Europe, Middle East and Asia) can apply. The program trains young employees in terms of presentation skills, feedback, time management, communication and they are offered a business case by the executive team. This has generated many ideas and because the pilot has been a success, the program is extended to include 24 employees. The objective is to attract and retain talented young employees.

Employees who have participated in this program are enthusiastic. Even though the Young Potential Program is successful, it is likely that the alumnus of Interface is right to critically question how this program is part of a

larger, that is global HR vision about how to attract and retain young employees. Indeed, 24 employees is relatively few people and it can indeed be questioned whether such program is content-wise truly innovative and part of a long-term strategy or a more standard approach to the development of business skills. As was already partly hinted at before, not necessarily age in itself is the problem, but long-term employment can create a certain organizational blindness. I was unable to research this thoroughly due to time limitations, so I cannot fully assert that this is actually the case. Yet it is important to acknowledge the following argumentation, given by the alumnus of Interface. As a former insider and as a current outsider, she inevitably can take more distance and reflect critically: *'Some of whom have been working for a long time at Interface still work pretty traditional: they just finish their own business and have some meetings here and there, but the real stuff is not discussed anymore or is evaded by comments such: 'This is just typically America'. Thus over time people become less critically sharp which leads to an insufficient challenging of the status quo, but this is precisely needed for organizations to learn, to improve structural issues, to invent new working methods and opportunities for collaboration'*.

#### 5.4.3 Employee acknowledgement

Furthermore several respondents have explicitly mentioned that more attention could be given to employees in terms of appreciation and acknowledgement. It appears that Interface is mostly focused on innovation processes and physical-environmental sustainability with regards to product and production, but one female respondent (marketing) for instance argues: *'More attention can be given to employees. If I am really honest, I don't believe that Interface does a lot to to keep us engaged. This extra step of appreciation sometimes lacks, because if you feel valued, you will also work harder. Otherwise most people won't, because nobody acknowledges or sees it anyways. We earn enough money at Interface, so why don't they organize something for the personnel, especially because people who already work for 5 to 10 years or even longer at Interface, once in a while can be reminded of the value of the work they are doing'*. One respondent (male, laboratory) also argues that there are events and awards, but these are predominantly external and are granted to (global) directors or at least top-level organizational members, instead of 'ordinary' employees. There are indeed also internal personnel events for example European sales events and prize-winning contests. Especially larger events are usually done in an American style with presentations, awards and a hug from the global CEO for certain employees who performed exceptionally well. However, what respondents aim to highlight is more subtle. It is not so much a matter of contests and large-scale international events, instead it can be as simple as a New Years' gathering or a cake for the hard work that several departments have been doing together under significant time pressure in order to meet the deadline for a product launch. This implies that it is a more a matter of small gestures that signify appreciation for the entire personnel and not only a few individuals who stick out. Yet there are yearly family days and informal barbecues for office employees, but production employees do not always feel part of such events as they cannot attend. This is because production lines cannot be cut short. These findings are important, but it must be acknowledged that my time has been too limited to delve more elaborately into the specific issues of career paths and HR strategy as well as employee acknowledgement.

*'It stays a company: horizontal communication and appreciation for employees – in every company there are issues that could use some improvement. That is common and that is why it would be good to evaluate how we can tackle this together.'*

- female 1, marketing



## CHAPTER 6 | KEY RESEARCH FINDINGS AND DESCRIPTIVE ANALYSIS II

### § 6.1. APPLYING THE SIX COMPONENTS OF INNOVATION

I will use the model of 'the six components of innovation' (see chapter 2: 'Theoretical framework of analysis') to give a descriptive analysis of how Interface's innovation processes for sustainability work based on the experiences and knowledge of employees. I will use this model to categorize findings and to bring order into a highly complex phenomenon that can be seen as both a result and a process. Besides as already explained in chapter 3, the 7 fronts are guiding principles for Interface's sustainability innovation. Even though few respondents explicitly refer to these fronts due to the fact that most employees are not necessarily familiar with the specific definition and content of these fronts, in the following sections it will become clear that the company indeed implicitly addresses these fronts through the type of innovations they make.

#### 6.1.1 Type and nature of innovations

Regarding type of innovation, Interface predominantly innovates in terms of product, operations and services with a specific focus on physical-environmental sustainability targets as part of Mission Zero (i.e.: zero environmental impact in 2020). Countless examples have been given or referred to by respondents. As already mentioned, there are several departments specifically focused on product and operations (process and production) innovations such as engineering, PPI<sup>34</sup>, technical service and product development.

Regarding the PPI department, employees work together on a project basis across the abovementioned departments to develop a new or improved product in terms of sustainability (i.e.: collaborating as PPI to ensure that the laboratory tests alternative materials, that production makes prototypes and that engineering adjusts devices). 80% of the time the PPI department is focused on developing more sustainable products through researching possibilities for recycled or biobased materials, developing alternative materials and potential innovations such as a carpet tile that is 100% recyclable. The other 20% is more a matter of common business projects such as cost reduction and optimization of current processes<sup>35</sup>. Product innovation does not only require technological *means*, but is often technological as such and can include an improvement (e.g.: recycling elements), a more radical change (e.g.: only using biobased materials) or entirely new (e.g.: a carpet that functions like a leaf that extracts CO<sub>2</sub> and returns oxygen to the air). This means that product innovation at Interface often revolves around improving technoscientific aspects, which contribute to a product's sustainability. A male respondent from PPI tells: *'The production of carpet requires a precode. This is glue that strongly attaches the yarn to a base fabric. In this project we are looking for alternatives, because precodes are petroleum based materials. Now we are researching with a partner if it is technologically possible to replace our current precode with recycled PVB<sup>36</sup> from discarded car glasses of which millions normally go to landfill or are burned.'* In addition, innovation (processes) in terms of operations is also mostly technical and especially managers from departments such as engineering and technical service and maintenance have to work together. Operational innovation can include improvements (e.g.: cleaner production plants and work procedures to structurally clean and maintain devices), radical change (e.g.: instead of ink, laser printers are used to mark the back of carpet tiles) or entirely new innovations (e.g.: ultrasonic precision cutting machines that reduced cutting waste with 80% and that was internally developed by the company itself or the possibility to manufacture with renewable energy coming from the castor bean). The abovementioned examples are part of front 1: eliminate waste, 2: benign emissions and 4: closing the loop.

Finally service, organizational and people innovations are generally less directly technical. Service innovation is rather a matter of developing new business models (e.g.: leasing, circular) and building client relationships by offering specific facilities rather than new products as such. Examples are Re-Use and Floor Care. As already mentioned, the former means to clean used carpet tiles and to sell them again at a lower price and the latter means that Interface closes a long-term maintenance contract with the client to extend the carpet's lifetime.

<sup>34</sup> I will use this abbreviation to denote the department of process and product innovation (PPI).

<sup>35</sup> There is a difference between optimization and innovation. Both in terms of product, operations and service delivery there are cases of optimization. Optimization is mostly a matter of ensuring that quality is maintained, that problems are prevented and that incidents are documented and solved. Optimization implies that one aims to work as best as possible within current procedures and systems. In contrast, innovation directly looks at potential improvements, especially ones that generate novel processes and results that did not exist before. Optimization tends to question how to work best in the current system (i.e.: actuality), whereas innovation questions what the best possible system would be and how it would work (i.e.: envisioning).

<sup>36</sup> PVB (Polyvinyl butyral) is a resin that is mostly used for binding, adhesion to different surfaces and keeping optical clarity between several layers of safety glass or car glasses. Retrieved from: <http://www.butvar.com/en/home.aspx>

Another example is Tactiles.<sup>37</sup> This is part of front 2: benign emissions and front 7: redesign commerce. Organizational and people innovations are more internally related to the company. This means that by definition this type of innovations is focused on the organization or the organizational members (i.e.: employees) as such. An example is the ambassadors' network and the Young Potential Program.

### 6.1.2 Product innovation: stages of the innovation process

Regarding product innovation the PPI department in The Netherlands is the only one in Europe that is specifically focused on product and process innovations. Concerning the assessment stage, on the one hand there is a systematic LCA approach to gather relevant knowledge for potential product innovation. One respondent (male 2, marketing) tells: *'In 2008, Interface conducted a large scale LCA analysis to understand where the biggest environmental impact resided of carpet tiles. It appeared that this was in the raw material stage that is yarn and precode specifically. Then employees from the PPI department started to research into either using less material, recycled material or an alternative material. These three options are the most common approaches to product innovation. As such together with product development we developed Microsfera<sup>38</sup> in Europe, which is not even produced yet in the U.S. I know that in Europe we are ahead of the U.S. in terms of product innovation.'*

On the other hand, the PPI department also collects information and new knowledge through conference visits, researches on the web, sometimes suppliers come with suggestions and through partnerships with universities. Nevertheless at least in this particular case study, the initial assessment stage also seems to be a matter of chance rather than a continuous active and deliberate form of research and idea development: *'Innovation can start anywhere. I can come across an idea by chance on the web, the former PPI department in the U.K. which currently no longer exists once started a project that we have taken over, a member of the Global Innovation team may read an article about the castor bean as an alternative resource, Geanne (i.e.: the head of sustainable development) can encounter an interesting potential partner at a conference or we can hear about new possibilities through market developments. So there is no structured process to come up with new ideas'* (male, PPI). In fact, at least in this location in The Netherlands there are no regular cross-departmental brainstorm sessions or meetings to exchange new ideas.

#### BOX 6.1. | DIFFERENCES BETWEEN LOCATIONS AND CONTINENTS

It extends far beyond the scope of this particular research to specify differences between various European locations of Interface, let alone between various continents. Yet several issues emerged. Out of the interviews resulted that though the U.S. head office is increasingly directing towards more standardization and centralization, divisions and various locations have always enjoyed a large degree of autonomy and decentralization. Every division produced carpet tiles and tracked developments in its own way. There has always been an exchange of necessary information, but originally Europe simply follows its own course, while divisions in other continents basically also do their 'own thing'. Local autonomy has led to very basic differences, for example it appears that in the U.S. production plants operate very differently from plants in Asia and Europe.

Decentralization tends to foster the emergence of locally appropriate solutions, bottom up initiatives and gives space and possibilities for local know-how to be used for innovation. Dooley for instance argues that in general industrial companies aim to standardize production methods in their plants (1997). This works as follows: one production plant is chosen to function as a pilot and carries out experiments to achieve the most optimal process results. These manufacturing methods become standardized and other production plants are obliged to follow these methods and are not allowed to change any of them unless consent is given by a central head office. As such the company has much control over the quality of its products and standardization may increase efficiency of the manufacturing processes. Yet the company also minimizes its own learning potential. This implies that learning potential precisely increases when there are instead of only one, various factories experimenting, testing and accumulating knowledge for improvements. If these plants also share their (local) knowledge and experiences, a company can innovate quickly (Dooley, 1997).

Therefore as one respondent justifiably points out cross-fertilization of innovations and exchange of learning experiences between production sites and continents is not sufficient and should increase. The alumnus of Interface also stresses: *'Between Europe and the U.S. there is not much knowledge exchange: what do they do there? New ideas and how do they function here? What are lessons from other divisions? So a 'continental exchange' could be fruitful.'*

Box 6.1 indicates that cross-fertilization (i.e.: exchange knowledge and expertise, initial brainstorms, learning from each other's work processes, implementing the same innovations worldwide such as the ambassadors'

<sup>37</sup> This is a glue-free installation system inspired by the gecko. The gecko is a lizard that uses more than one million tiny foot hairs to stick to surfaces at different angles. This was used as an inspiration to develop backing systems with adhesive squares that connect tiles to one another and to the floor without using glue. This prevents the odor and chemical usage of glue as a synthetic material while also reducing the environmental footprint of adhesives with 90%. Retrieved from: <http://www.interface.com/US/en-US/about/modular-carpet-tile/TacTiles-Glue-Free-Installation>

<sup>38</sup> Microsfera is regarded to be a milestone. It is Interface's carpet tile with the smallest carbon footprint with 3 kg of CO2/m2 in comparison to 63,3 kg for a 'regular wool/nylon broadloom' tile. Moreover Microsfera does not contain precodes and the bitumen and yarn are recycled. Retrieved from: <http://microsfera.interface.com/en/sustainability>.

network and not only in Europe) between countries could improve. Hence approximately 2 years ago the Global Innovation Team<sup>39</sup> was formed in the U.K. to create more internal global connection with regards to sustainability innovation. Nigel Stansfield is the current Chief Innovation Officer and head of the GI team and responsible for coordinating innovations globally. The difference between a local department such as the PPI that is largely focused on sustainability innovation and the GI team is that the work of the former is much more focused on applied innovations such as concrete projects, materials and products, whereas the GI team is more focused on long-term developments in technology, societal trends and to promote more global collaboration between different continents. The formation of the GI team is relevant according to a male respondent from PPI:

*'We brainstorm too little together with technical experts from other countries. We should collaborate more around new ideas and exchange our knowledge and expertise. For instance in the U.S. they are researching the possibility for carpet that generates light which I have also looked at in the past. I could have given my colleague in the U.S. a lot of information, but now he does not work at Interface anymore and I don't know who is now fulfilling his function. We could also learn much from the U.S. where they are testing other materials than we do. Now we only come together on a project basis, but it would be good to develop a structure for regular global meetings with all technical experts to share our knowledge and improve collaboration. We could ask the GI team to develop such a structure.'*

There are indeed global meetings and a regular exchange of ideas between cross-departmental directors often operating on larger scale such as the European director of technology (i.e.: engineering, maintenance and process and material research), the product portfolio director and the sustainability director EMEA who will during such meetings amongst others discuss current innovation projects. However in such instances global guidelines are discussed on a management level, which is different from an actual daily practical level (e.g.: research, local project management).

However development groups between different technical departments in the U.S. Asia and Australia are initiated on a (concrete) project basis. It basically differs per actual project, which people collaborate and how different continents work together during the development stage of an innovation process for a new product or operational system. For example the PVB project has significant potential. This is the reason why the Dutch PPI department (which initially started to research into PVB) is working together with members from the GI team and American colleagues. Stansfield coordinates the project group and the monthly meetings. During such stage the following happens: *'We try different materials and exchange support. For the PVB project, Stansfield is responsible for sending materials to technical research institutes. Here in our laboratory we also test. When we make a prototype and the results show that they do not have sufficient quality for commercial usage, we meet with the project group to think of other avenues. [...] It is all about asking questions and thinking in terms of possibilities: 'Can we then perhaps tuft in another way or develop a product that uses 10% less yarn, or find an alternative to the bitumen that we use? That is how we innovate our products'* (male, PPI). Yet if there is no concrete project group, development groups in various continents do not tend to brainstorm together or cross-fertilize to a large extent: *'In the past we used to have each two months a meeting between these development groups. Yet we mostly exchanged information on what we were doing or worked together on existing projects, rather than developing entirely new ideas together.'* Shortly, it can be stated that technical personnel from various departments neither amongst each other nor with other less technical departments, have regular brainstorm meetings or other institutionalized structures to co-innovate or spark new ideas. Technical personnel which is specifically focused on innovation and working in different continents neither tend to cross-fertilize much during the assessment stage, but only tend to come together for a concrete project during the development stage.

### 6.1.3 Operational and process innovation: stages of the innovation process

Regarding the assessment stage of operational and process innovations, it is less a matter of initial information gathering to come up with new opportunities or a matter of chance. Instead as one male respondent from the technical and maintenance department states: *'Frequently innovation starts with a problem or an issue: something is not working sufficiently well or creates troubles, whereas it should be possible to operate more effectively. Then the question arises: how can we do this together?'* Examples are the fact that production demand has increased which means that production lines should operate faster or that the mission for 2015 is to save 1 dollar per square metre of carpet. Even though the vast majority of production employees tend to do their work without thinking too much about how to improve sustainably, some employees have certainly pointed out problems or suggestions for sustainability. Depending on the scale of the issue the employee can either immediately question his supervisor or address the head of technical service and maintenance to come by and have a look, or if it is a large-scale problem they can also be requested to make a

*'It is about taking responsibility also in the field of another expert. If I think engineering needs to help me, I simply walk into their office and say: 'We want to do this, but we are stuck. Can you help us out?' [...] It is a matter of removing walls and boundaries between departments'*

- male, head technical and maintenance department

<sup>39</sup> I will use an abbreviation for the Global Innovation team, which is the GI team.

descriptive note about the problem, otherwise technical experts simply do not know what they have to solve exactly. This means that it is best if they make a so-called 'one-point lesson' of the issue together with the fault mode mechanic, their teamleader or the production line manager with a picture or a small sketch. This procedure is part of the program called 'QUEST'. However following this fixed procedure does not seem to be common, since employees are generally more inclined to simply verbally address encountered troubles or ideas for the improvement of their work environment. Programs such as QUEST have become less active due to the fact that after several years of picking the low-hanging fruit it becomes increasingly difficult and more complex to improve sustainability results. Yet over the years the topic has certainly been discussed during teammeeting and around 10-15% of the production employees have contributed suggestions and pointed out problems. Examples are catching dripping bitumen in buckets in order to fuse and reuse the bitumen or installing LED lightning in the plant. One respondent who is production line manager also tells: *'If I signal a recurring issue, then I can ask the head of technical service and maintenance to come along with me to have a look. If it is too difficult we can make a project out of it or I can go to engineering for support'*.

Secondly, assessing opportunities for operational innovation also occurs during monthly meetings wherein amongst others the European head of technology and engineering, the production CEO and the head of technical and maintenance support are coming together. Per production line, issues are discussed ranging from what needs attention, how production is working and what issue are most urgent. The latter is usually done first and is not always related to sustainability per se. This means that Mission Zero does not always comes first, because sometimes other issues have more priority due to commercial reasons. Yet despite clear commercial considerations, the ultimate long-term objective is to operate more sustainably.

Thirdly, operational innovations can also start with a future vision, which often overlaps with product innovation. For example: *'We asked ourselves how we could produce a 100% recyclable carpet tile free of any environmental impact and emissions, but instead with a positive net effect such as contributing to indoor air quality or providing natural warmth isolation'* (male, PPI). This future vision includes a number of fronts such as eliminating waste, benign emissions and closing the loop. Together with PPI, product development and engineering, the technical maintenance department (i.e.: this is the technology group) researched into possibilities wherein everyone can contribute their specific technical expertise. Despite the fact that brainstorm sessions or regular meetings to exchange fresh ideas are not institutionalized, employees from technical departments do meet one another and carry out technical experiments into whether the machine should be updated, what other materials can the product contain; can less bitumen and more chalk be used; installing a device that virtually depicts on screens the progress of production lines to increase productivity. They started off with questioning how many backings are used for each carpet tile. It appeared that in Europe they use a kilogram of backing leading to a weight of 2,8 per carpet tile. When the technology group retrieved information from the U.S., Asia and Australia it appeared that a carpet tile in the U.S. only weighted 2,4 kilograms. *'We thought: but then why does it weigh 2,8 kilograms in Europe? The answer simply was because the tile had always had this weight. Obviously we ran some tests and now we save 400 grams per backing'* (male, technology and maintenance department). Another concrete innovation result in terms of operations has been that initially the main packaging production line only used expensive cardboard. Consequently the company decided to invest in an entirely new packaging line that only uses recycled cardboard: *'Within half a year the device had earned a complete return of investment'* (male 2, production line manager).

In addition, in 2010 the assessment stage of operational innovations was deliberately initiated. CEO's and directors coming from different places in the world gathered in The Warehouse to discuss how they could revive Mission Zero. Consequently they decided that employees with technical expertise and who were actually working on the shop floor, needed to form teams as they realized that practical operational issues could not be solved on a management level. Initially WebExes were set up between technical experts (i.e.: in terms of product and materials, production processes and engineering) working in Europe, Asia, Australia and the U.S. to

*'After every 100 metres of carpet we would stop the device to take a sample. Yet from other production plants we learned that if you maintain the device well, you will know precisely what it does. Now employees only have to check once a week the condition of the device, rather than taking out a sample each time'*

- male, head technical and maintenance department

exchange ideas. However mere virtual connection was not sufficiently effective. Consequently through subsidy approved by the global CEO Daniel T. Hendrix, technical experts could form War on Waste teams and visit each other's location. As such the Dutch head of the technical and maintenance department amongst others travelled to the U.S., Thailand, Australia and his counterparts came to visit the Dutch production plant with a financial expert as a project leader. Together they looked at the operations of each production plant identifying local issues and possible improvements. The War on Waste initiative resulted in very large innovations, but also fostered countless small and simple improvements that were more a case of process optimization: *'We exchanged so many examples and experiences. [...] Processes that are very normal for us can be a huge problem in Australia. [...] In Thailand an employee was taking strings out of a production device. I asked a*

*colleague to send us a short film of how we did this in The Netherlands: this proved to be a brilliant suggestion for the production employees in Thailand'.*

Especially for 'radical change or entirely new' operational innovations, technical departments have to cross-collaborate to make use of each other's capacities, even though this has not been always regarded as obvious. One male respondent (technical and maintenance department) states: *'In the past I requested to the manager of engineering if a number of his employees could assist me with a problem or project. Back then they would say: 'Just hire some external engineers'. Yet I demanded their collaboration, because why would I hire external engineers if we have a whole internal department full of them?'* The same respondent also tells that now, 15 years later it is entirely different. Common understanding has increased that innovation requires collaboration and inclusion. Though production employees argue that they experience it differently (i.e.: engineering installs a new device without much initial engagement of employees who actually need to administer the device), he at least states that already very early in a project relevant people are included: *'We now ask them: can you work with this machine? What goes well and what does not; is everything clear? What is your input?'* After all, they work the entire day with the device, so they should know about it'.

When it comes to different stages even though theoretically speaking these stages are very distinct, but in reality all five stages (i.e.: assessment, design, development, implementation and adoption) are much more dynamically overlapping and transitioning from one into the other back and forth. This basically counts for all types of innovation. An example that is both related to product, operations and service innovation is the Re-Entry program which consists out of three aspects, namely that 1) a product can be fully recycled, 2) Re-Use<sup>40</sup> and 3) still extracting materials from cutting waste before it goes to an incinerator. The Re-Entry program also clearly includes the fronts of eliminating waste, closing the loop and benign emissions. Re-Entry will at least cost 3 to 5 years more before the program can be fully adopted and is completely operational. *'The Re-Entry program is not fully working yet. This means that we cannot completely recycle all of our tiles. To clients and visitors we can indeed show that we recycle: when visitors come we turn our machine on in the production plant, but we are not actually doing it continuously. Yet you can't get everything done in one day. Neither a car was developed in a day. Innovation requires constant improvement, finding solutions to start-up problems and getting there through trial and error, but next year we will have made progress and who knows in 10 years our recycle hall may be five times as large with ten devices instead of one'* (male 1, production line manager). The male respondent from PPI also argues that development, implementation and adoption overlap: *'Product and material innovation is always a long-term process. It at least takes two to three years; for instance you cannot just replace regular yarn for biobased yarn. It has to be tested, prototypes of tiles need to be made, retested and improved to meet commercial standards and the project group will have to solve issues that inevitably occur during the process such as the fact that production machines need a new facility has to be adapted before new collections can actually be produced.'* Besides the three final stages of a specific project generally require significant financial budget and consent from the global board of directors.

Finally external experts, technical research institutes, NGO's and universities also frequently take part in projects or are invited to become partners (e.g.: for the PVB project Interface is collaborating with carglass suppliers and a company that can process PVB). This certainly also counts for service innovation processes, which are on the one hand a matter of collaboration between stakeholders and closing appropriate contracts and agreements. For example Interface collaborated for the design of The New World Campus in The Hague with an architect and installed used carpet from various locations (Re-Use). They closed a circular maintenance contract for five years which enabled the company to do check ups themselves and to ensure that the carpet tiles would remain fit for recycling. On the other hand the actual design and development of the Re-Use program has been done in collaboration with a student from the Dutch University of Delft who wrote her thesis on this subject. This thesis is still used as a guiding line for the program of which The New World Campus is one of several pilot projects. One of my respondents, a male from the after-sales department coined the concept through a suggestion box called Inside farm. Inside farm is a European platform where employees can post their ideas and receive votes from other employees. Activity on this platform comes and goes in waves. Sometimes the platform is very active, whereas other times it is not. Yet approximately 2 years ago the re-use concept became number 1 in Europe. A British colleague from the GI team contacted him, because they also found it a good idea and it was clear that there was sufficient support among employees. Consequently the GI team asked him whether they could write a proposal to receive budget and to present his idea to the global board of directors in the U.S. or whether he wanted to do this himself. Once consent was given they started looking for a student in The Netherlands to assist Interface. The Re-Use part of the Re-Entry program is a clear example of an innovation that includes the fronts of sensitizing stakeholders and of redesigning commerce.

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<sup>40</sup> To clean and revitalize used carpet tiles and to install them for a second time at a new client for a lower price, so that carpet tiles are only recycled at the end of their complete lifetime.

#### 6.1.4 Means of innovation

Innovation (processes) obviously requires resources: *'Re-Use is something I really fought for within the organization. I was actively involved with developing all maintenance concepts: so to not only deliver carpet tiles, but also related services. Luckily I could also indicate: I want to do this, but I need support and they will ask you: what do you need, which team, which people and how much budget?'* (male, after-sales). This quote indicates that required means are frequently finance, time and human skills. In terms of financial investment for innovation, the company is not experienced as conservative. In fact, Interface kept on investing in large-scale innovation projects and new production techniques even during the years of uncertainty and market turbulence after the financial crisis of 2008. Also technical experts such as the manager of engineering have their own budget. This they can use for optimization and investment in innovative projects geared towards more sustainable products and operations, because this is the main core of their work. One male respondent (technical and maintenance department) says: *'Work is interesting, because at Interface there is money to do things better and differently. I have all the freedom to innovate, because I control the maintenance budget of the production plant. Usually I can decide myself, but of course there is financial control. Up to a certain amount I am allowed to decide, after that the director needs to consent. If the project will require even more investment the head office in the U.S. needs to agree.'* In contrast, employees from other non-technical departments have to write a proposal to be given financial subsidy for a project that contributes to sustainability innovation.

*'In the 14 years that I have been working here, I have never experienced a rejection of an innovation project, because there would be no money for it'*

- male, head technical and maintenance department

However, required resources are not always directly related to the innovation itself. Even though product and operational innovation for sustainability have over the years saved Interface significant costs, innovation is also very costly due to the necessity of streamlining other existing processes. A respondent (male, planning) for instance shares some of the challenges when it comes to the implementation and adoption of innovative processes and results. Issues are mostly related to streamlining innovations with existing systems and work procedures that frequently require adaptations. He for instance tells that PPI has to test with the production of tiles that contain PVB, but this inevitably interferes with the planning of the regular production flow for customers. As a manager of planning he is the one who needs to decide where and when to make production capacity free: *'It is always a question of how to sustain normal production flow, while also investing in production renewal. Besides Microsfera is partly produced by an external production plant. So we send some of our materials to another company. This needs to be administratively processed. However our current administrative system does not have the capacity to do this. Nobody anticipated this. Innovation is fantastic, but it can create disadvantages and unforeseen circumstances in other areas.'* The same respondent also argues that Interface develops new products and collections at a high rate. Products are highly modern, but after their launch can already disappear after a year to be replaced by a new collection. As a result production and planning frequently need to adapt their procedures and monitoring tools: *'At Interface change is a constant. At least for the coming 1,5 year I will be busy with the implementation of new systems or procedures that need updates, because of Microsfera'*.

Finally in terms of people's skills, commitment and ideas in section 6.2.3 it will become clear that innovation demands significant investment from the side of employees themselves.

#### 6.1.4 Innovation wider in the Dutch head office of Interface and inspiring others

As explained in the sections above, different process stages of product, service and operations innovations are often sustained by the collaboration between predominantly technical departments, cross-continental project groups and partnerships. Even though this is not a daily and common phenomenon, let alone that all initial ideas will make it to the final stage of adoption, my case study findings indeed indicate that innovative ideas for Mission Zero can also spark at other departments in various forms that are sometimes more related to organizational and people and other times overlap with product, operational or service innovations. First of all, as already mentioned employees who take a level 3 training for ambassadorship need to write a proposal. Although the majority of ideas is not realized rather than fully adopted, there have been quite a number of ideas that have indeed been implemented. Besides employees also contribute to innovation in other ways than only through an ambassadorship application. It is actually always possible to write a proposal and to come with ideas as long as it contains sound argumentation, planning and a financial indication, regardless whether one is an ambassador or not. The only condition is that it simply requires investment from the side of employees. For instance a production employee suggested using a heat lamp in order to detect where in the production plant warmth was leaking. Consequently special blankets have been made to wrap around the production tubes, which has resulted in significant energy savings.

*'My idea for my ambassadorship was to recollect old pellets and packaging materials from customers. Now we are doing this and it saves Interface money'*

- male 3, sales

In addition innovation (processes) is not necessarily only emerging at specific departments (i.e.: employees who are constantly directly dealing with sustainability issues), with ambassadors or other employees who write a proposal. Innovation projects can also start without any proposal and develop as simply as an employee getting into touch with a relevant contact person. For instance a female respondent from the travel department approached KLM and Sky Energy, since KLM had started a program for companies to compensate their environmental impact by investing in the development of sustainable resources for air travel. The respondent tells: *'Because Interface has built quite some experience with business sustainability, we are interesting for them as partners. Of course this initiative requires investment from Interface, as such ultimately the board of directors needs to decide if they want to give consent. I only took the initiative to contact KLM'*. She also states that the sales department has currently taken over the communication with KLM, because next to the overlap in sustainability objectives there is a clear sales and marketing strategy to Interface's participation interest. This implies that innovations are not necessarily exclusively focused on sustainability, which is more the case with technical operations innovations. Instead by investing in KLM's program Interface could regain the former as a customer for its offices around the world. This is because due to KLM's merger with Air France several years ago, Interface lost KLM as a customer to their main market competitor that already had a contract for carpet supply with Air France. Now the contract is almost ending, so the Dutch sales department is aiming at a win-win situation. This implies that Interface is not only focused on achieving sustainability, but also reasons out of 'common business sense'. At the same time, it is not just a sales and marketing trick: *'We have researched whether the story behind KLM's program is honest and if this is truly contributing to environmental sustainability, because we would not want to connect Interface's name to a project from which we later hear that it is not sound, the more because of marketing reasons'* (female, travel). Interface's business' as well as intrinsic interest in KLM's program is an example of front 2: benign emissions, 5: efficient transport and 6: sensitizing stakeholders.

*'If companies say that they do not feel much affinity with sustainability, I usually say: time to change perspectives. We can send you some information about how we once started.'*

-male, after-sales

Another example given by the male respondent from after-sales is that as a maintenance expert he works together with other companies to maintain and clean carpet that is installed at customers' spaces. As an employee from Interface he consciously advises and actually requires from partnering companies to operate more sustainably. As such he initiated a research project around carpet cleaning devices that were using a significant amount of water. Three years ago he or rather Interface partnered with these companies to find a method in order to reduce water usage with 95%. Moreover he also suggested to look at energy efficiency of cleaning devices and as a consequence ensured that research tests were conducted. It resulted that a device of 500 watt was even more effective for cleaning small dust particles than 1200 watt. The respondent tells: *'I contacted our partners and told them that what they did was unnecessary. Using 500 watt devices would suffice and moreover would save costs for the customer, for them as a company and would benefit the environment. Count yourself how much energy you will save in 10 years by using 500 watt instead of 1200.'* After these tests Interface wrote to several industrial suppliers such as Phillips that if they would bring a cleaning device with 500 watt on the market, Interface would guarantee that they would advice to all of their end customers this specific device as the most sustainable in terms of energy usage. Yet only a small and more unknown company called New Metic reacted and decided to partner with Interface. These tests and their results even led to a change in European regulation due to the fact that the European director of sustainability Ramon Arratia, the respondent himself and New Metic had lobbied at different organizations and committees. As a consequence now all European cleaning companies need to reduce their energy usage to 700 watt in the upcoming 5 years. This is clearly an example of two fronts namely 2:benign emissions and 6: sensitizing stakeholders. Moreover over the years Interface has also influenced other suppliers to operate more sustainably. Interface's suppliers in yarn and glass fibre have been inspired by the company's request to develop a biobased version of these materials.

Another type of innovation that is not product, service or operations related, but more in terms of organizational and people has been The Warehouse and its renovation into a meeting and event centre at Scherpenzeel. The Warehouse was an idea of the manager of sustainable development. To realize such a large-scale and costly endeavor (i.e.: 2,5 million Euros) she needed to lobby extensively. Initially this was not easy, since the project would require expensive designs, audio and video facilities and other costly investments. Yet she started early with talking to different employees at various departments to ask them: 'How could this be technically realized; how could this be interesting for sales and marketing; how could this be financially viable and what are the risks; how can we do this together; what can you do?' She kept on lobbying, talking to different people, while aiming to receive financial budget. She needed to write a project proposal as well as convince the global board of directors. Now The Warehouse has approximately 6000 visitors per year to inspire others, to profile Interface and their sustainability mission and to broaden their network of potential customers. For instance during my fieldwork, a minister of the European Union came to visit Interface and The Warehouse with at least 60 other CEO's of leading Dutch companies. Frequently visitors are also discussing a similar question during events in the Warehouse of how to start with sustainability, where to begin and if a company such as Interface with

significant experience can inform them. Events for schools, an architects' day, a monthly lecture, an inspiration workshop are all part of small initiatives on a local level that happen in and around The Warehouse. The Warehouse clearly illustrates front 6: sensitizing stakeholders.

An example of another innovative project as it led to an increase in human sustainability and ultimately fostered a better working environment (i.e.: colorful painting, more light, cleaner air and floor, more tidy) has been Total Productive Maintenance. In a certain sense this project is an operational type of innovation, while at the same time it is also human centred. 15 years ago the production plant used to be filthy creating a rather uncomfortable working environment. The board of directors decided that a cleaner production plant was necessary and that instead of obliging employees to clean, their support was needed. Hence several managers from various departments (e.g.: finance, secretary, planning and engineering) and the production CEO of EMEA took up a one-day initiative wherein they cleaned the production plant themselves: *'As supervisors we laid a basis for cleaning manuals and said: 'This is how we want to keep our environment clean' and we strived to give the employees a learning experience by doing it ourselves first. It was important that we together showed the importance of maintaining the production plant and to make an appeal on each other's responsibility.'* Finally another respondent tells (male 3, marketing) that he gave the suggestion to invest in a digital tool for project management. The director said that he was right and could search for possibilities. He was requested to come with a proposal for a try-out and to see if they could consequently upscale it. So he made a list of requirements, but a demo would cost 5000 Euros. This appeared to be too expensive. Hence: *'I said: we'll do something ourselves. So we started researching and testing. It went very fast: within 3 weeks we decided to implement this tool'*.



**BOX 6.2 | NET-WORKS – ANOTHER INNOVATION EXAMPLE** <sup>41</sup>

Several years ago, an employee from the Zoological Society London (ZSL)<sup>42</sup> came into contact with a GI team member who was researching into how to obtain recycled yarn. Together with engineering and product innovation departments of Interface and the GI team, Net-Works was created out of a global partnership with ZSL. Since 2012 the Net-Works program enables coastal and lakeside low-income communities to collect and sell discarded nylon nets at 10 to 14 different collection sites. The nets are balled through a mechanical machine that does not require electricity, whereafter they are shipped to the European factory of Aquafil. Finally Interface purchases the recycled yarn for its carpet tiles.

**Contextual background**

Three years ago Net-Works was piloted in the Phillipines among communities living in the Danajon Bank. The Danajon Bank is a double barrier reef. The livelihoods of these island communities largely depend on the ocean in terms of fishing and seaweed farming. Their livelihoods are fragile, because of overfishing and due to a relatively high risk of natural disaster. The communities also tend to have little access to financial services and education. Moreover discarded nylon fishing nets have severe consequences. These nets not only contribute to the global oceanic plastic pollution which creates environmental havoc in vulnerable marine ecosystems, but also intensify the problem of overfishing due to the fact that discarded nets continue to catch and kill fish in the ocean. Apparently the estimated length of discarded nets each year in the Danajon Bank, would circle the globe 1,5 times.

Net-Works has generated additional income for many people to acquire food and to invest in the education of their children. The program also aims to develop a socio-economic infrastructure at each collection site. Hence community banking systems have been established to provide basic financial services such as micro loans and savings. In the first 1,5 year almost 12000 kilometres of discarded nets have been collected that have provided thousands of meals for local families.

**Partners and future development**

Interface developed the concept of the program, its strategy and has provided startup capital and a global network. However, without the operational expertise of ZSL in working with local communities for conservation, Interface would not have been able to set up and maintain the program. The ZSL Phillipines has thus been responsible for local practical implementation in terms of explaining the process of fishing net collection and its impact on the environment, coordinating balling processes and partnering with local organizations. This means that Net-Works is also facilitated by local microfinance and fair trade organizations to explain and coordinate community-banking and to facilitate export from the Phillipines. According to the website, partnership with local organizations is highly important to ensure that the program is appropriate in terms of cultural customs and possible social sensitivities. Finally after several tests it appeared that Aquafil, one of the largest global yarn producers, could process the nets. Now Aquafil is the first company in their market which can offer 100% recycled yarn.

Currently due to its success, the Net-Works team is expanding the program. The Lake Ossa region in Cameroon, Africa will be the next site. Similarly in this region a large amount of discarded fishing nets endanger local biodiversity. For the communities there is limited access to education, financial resources and poverty levels are high, while most of the livelihoods depend on the lake. Net-Works collaborates amongst others with the ministry of Forest and Wildlife and the local NGO: the African Marine Mammal Conservation organization. The future aim is to develop a Net-Works manual in order to replicate the basics of the program as the team will keep on searching for new locations and partners.

**Inclusive business**

According to Interface, Net-Works is a form of inclusive business. This is defined as: 'an economically profitable enterprise that fosters employment for low-income communities – either directly or by bringing them into the (global) value chain – and that results in positive socioeconomic and environmental impact.' The future objective is to grow and upscale this inclusive model that has redesigned the entire value chain of some of Interface's flooring products. From a business perspective, it brings Interface a step further in achieving its sustainability strategy of Mission Zero and eliminating its dependence on petrochemically-based raw materials. From a social perspective, low-income communities are given opportunity to earn an additional income to improve their livelihoods (e.g.: education, sufficient food, housing). Net-Works is also an incentive to clean and protect their environment and to sell so-called 'plastic waste' back into the global supply chain to the benefit of marine ecosystems (i.e.: environmental perspective). For Interface Net-Works is the proof that when business, environmental conservation and communities innovate together, they can create socially positive and environmentally sustainable change. Shortly, Net-Works has been the first step for Interface to become a restorative enterprise.

**Additional remarks**

The story of Net-Works has been a great success leading to significant employee support and several business awards. Unfortunately it is beyond the scope of this research to determine how successful Net-Works truly is. This means that it would require another social science research and fieldwork to determine how Net-Works is working 'on the ground' in terms of actual environmental and sociocultural community effects, possible power or competitive relations that have emerged, cultural constraints and other issues such as women inclusion. Nevertheless, though it is unlikely that such issues have not been encountered, the program clearly combines inclusive business with forms of social entrepreneurship.

<sup>41</sup> The information in this box is retrieved from interviews and partly from: <http://net-works.com>

<sup>42</sup> The ZSL was founded in 1826 and is an international charity that aims to achieve worldwide conservation of biodiversity and ecosystems. ZSL has worldwide conservation programs and often works together with local communities. Retrieved from: <http://net-works.com>

## § 6.2. PEOPLE AND CHARACTERISTICS OF AN INNOVATION CULTURE

### 6.2.1 LOOP as a means to stimulate cross-fertilization for innovation

#### BOX 6.3 | LOOP - INNOVATION PLATFORM

Through participant observation, I was introduced to LOOP by an employee who was willing to show me his account and guide me through the platform. LOOP is an internal knowledge and sharing platform accessible to all global employees through the worldwide web. The platform was initiated approximately 1,5 years ago. The home page shows global updates and gives opportunity to click on several discussion groups such as: a) Factories to Zero, b) Operations, c) Co-innovation of teams and d) Global cities of the future. Every employee can make a personal page with expertise, skills as well as personal interests. Similar to Facebook, employees can follow one another and see personal posts. There is also access to Rob's Round-up videos from the main European director. Finally there are also different themes such as 'Global' or 'Sustainability'. These themes are divided into sub-pages such as a) Interface Book club, b) Design, c) Ask our community and d) Co-Innovation. The theme 'Sustainability' contains sub-pages such as a) I AM Mission Zero, b) Dr. Zero News, c) Environmental Product Declarations, d) Net-Works and e) Restorative vision and development.

The need for more global collaboration has amongst others led to a platform called LOOP which was set up by the GI team. Box 6.3 gives a formal description of LOOP. I was able to ask 24 respondents explicitly about their experience and tacit knowledge around LOOP. It appears that there is a general idea about LOOP, but detailed knowledge concerning its purpose differs. Some employees believe it is meant as a knowledge and information collection database, but most tend to regard it as a platform to globally share ideas and exchange suggestions with employees one does not necessarily have to know personally; two respondents believe it is a marketing/sales tool, while one respondent argues that even though she visits LOOP, she does not know what the ultimate objective is: *'There should be more clarity around the purpose of this platform, the more because it is used too little as a tool'*. Out of the various responses it can be argued that on the one hand, LOOP is a means to increase global exchange and it is a first start to foster more collaboration between departments for sustainability innovation. One respondent (female, design) says: *'That is why LOOP is pretty useful, more people and groups need to be linked to each other. The idea is that everyone shares interesting news, ideas, opportunities and insights'*.

*'LOOP is not so effective. We can share our success stories and some ideas, but employees are not triggered enough to use it nor is it a good project management tool.'*

-female 2, marketing

A female respondent (HR) argues: *'It is meant to stimulate innovation, but I am sure that certain departments still do not have access; it has to become more embedded within the organization. Yet if I just take a look at LOOP for half an hour, I get the feeling I am up to date again with what happens worldwide at Interface'*. However she also admits that LOOP is not working actively and very effectively (yet). This is mostly because even though employees do once in a while visit LOOP and read news items on the platform, most employees either argue that they visit LOOP too little, simply state that they do not visit it much or find it an impractical tool. This is due to various reasons. Firstly, for some employees there is too much information and news to read, whereas there is already a significant number of work related emails and daily tasks that demand attention: *'I never visit LOOP. It is again another system with passwords, it is just too much next to the amount of daily work and things to read'*. Another respondent says: *'One month ago I visited LOOP. It is too big, there is so much going on at Interface, it is just too much to follow everything'*. Another respondent argues: *'I still need to finish my work. So I focus my time on my main tasks. Yet I do visit LOOP, but I think too little'*. Secondly it has also been argued that on the platform ideas can be shared, but for documentation it is too chaotic; it seems unclear how to find information or simple facts. One male respondent (IT) states: *'I visit LOOP, because I have to. The IT department of the U.S. always shares a lot of weekly reports, because I think it is also meant to function as a documentation and knowledge database. Yet I believe it is a disaster: I am always searching like crazy for the simplest factual information.[...] It is not well structured.'* Thirdly, some respondents also argue that English as a main language can be an obstacle, especially for those who are relatively less educated: *'I never visit LOOP, it costs me too much effort because my English skills are not very good, but it is neither important for carrying out my own work'* (male, laboratory). Even other employees who speak well English themselves have critically wondered how much this platform can be accessed by their colleagues working in the production plant, the more because there are only one or two computers available in the plant.

### 6.2.2. Contributing ideas

The former chapter 5, I described experienced issues with the ambassadorsprogram and that not every department or individual employee feels or knows what they can exactly contribute to the mission as this seems largely limited to more technical departments. Nevertheless it can be stated that in the experience of employees, ideas to improve sustainability are always welcome and appreciated. *'In this sense it is absolutely not a conservative culture. You can easily state your ideas here. You won't be immediately rejected. If you have good*

arguments supporting your idea, it will be noticed' (male 1, finance). A male respondent from after-sales says: 'For example last week we received an email from our global CEO Dan Hendrix. He asked several questions about how we see the future and what ideas we have about 'Beyond 2020'. One other respondent (female, HR) states: 'I believe we still have quite some top down management with regards to our budgeting process and our strategic plan. But that is fine, not everything needs to be democratic. We are a company with shareholders so speed is required. Yet I have never worked in a company that is so transparent and facilitates bottom-up processes: we really value the input from our employees and we deliberately choose for our own employees to participate in project groups, instead of external consultants'. Another respondent says (male, PPI): 'At least here in Scherpenzeel, people are very aware of the need for innovation. There is a positive atmosphere to implement renewal and people tend to think along when there are problems.'

*'If you have a good idea and take up effective initiative, you do receive appreciation. The Re-Use program will be a success. In fact, it will even become a financial succes'*

-male, originator of the Re-Use program

*'There is an atmosphere of ideas being welcomed, even though not every idea can simply be carried out. At the same time you don't have to come up with ideas'*

-female, legal department

Bringing in ideas usually works as follows. If an employee has an idea to contribute to Mission Zero, he or she either talks to their immediate supervisor for consultation or possibly to a colleague who is directly involved with organizational sustainability such as the manager of sustainable development. Depending on the type of ideas (i.e.: whether it is very local such as switching to LED lightning or appropriate on a more global level such as Net-Works), they can also be placed on LOOP and Inside farm (which is nonetheless not always active). Ideas that require relatively little financial budget and which are more locally oriented can be discussed with and consequently approved by managers of specific departments. The larger the scale of the potential innovation and the higher the financial budget required, the more likely

it is that approval has to be given by organizational members higher in the hierarchy (i.e.: local teamleader or departmental manager; cross-departmental director; the executive board of EMEA and finally the executive global board in the U.S.). In such cases a proposal with sound argumentation and a financial indication are generally required. Often such ideas also require networking and lobbying either by the manager or the employee him or herself, before one's idea will be discussed by the executive board of directors or other leaders within the organization. This implies that significant individual proactiveness is required: 'You can do anything you want, as long as you make a compelling business case which is well thought out and gives an overview of costs and potential benefits, so that your idea is accountable towards the executive board. It is basically a matter of showing: this is what I want to achieve and this is how I am going to do it. In this sense, innovation can be pretty bottom-up' (male 1, marketing). A respondent (male, design) gives a concrete example: 'A colleague suggested an idea to the product portfolio director. He agreed that she could develop her ideas further. So she made a proposal and a pitch that was approved by the director and the GI team. Now they are going to do a pilot. If this works out well, the director will have to address Stansfield again to give more budget'. Another respondent (male 2, production line manager) illustrates how it works for managers: 'Depending on the amount of money I can make decisions for investments myself. Otherwise I need to make a proposal with clear objectives and meanwhile track our progress. However they tend to let us free at Interface. We don't have many strict rules of what is allowed and what is not: this is not at all the case at Interface'. Another respondent (male, planning) states: 'Depending on the scale of the idea for improvement and if it is focused on the planning department, I am in principle the one who decides. If the idea or project involves other departments as well, I would have to go to my supervisor'.

Finally regarding the GI team and contributing ideas to them, remarkably enough the male respondent from the PPI department does not know whether the GI team has brainstorm sessions in the U.K., at least he has never heard about it. As such he surprises himself by realizing he does not know much about the GI team, whereas his department plays a highly important role within the company in terms of product and material innovation. As already mentioned, it is true that the role of the GI team in terms of innovation is more overarching and strategic than the function of local departments, which are more focused on direct practical application and improvements. Yet the fact remains that among respondents it is not commonly known how the GI team exactly operates and what their daily work procedures are. Respondents do not seem to know more than general facts such as the purpose of the GI team, that the team is based in the U.K. under Nigel Stansfield and that they are responsible for coordinating major innovation projects. Generally it is a question mark how innovation processes precisely work under the GI team. Arguably this limits possibilities for co-innovation, because if it is unknown to (local) employees how their GI team is exactly working, the experienced distance between 'my work' and 'the work of some innovation team working globally in the U.K' becomes larger. The alumnus of Interface again gives a thorough analysis on this issue. She argues that the GI team indeed develops new concepts very thoroughly with beautiful results such as Net-Works. However in her viewpoint the team innovates more in terms of external projects, rather than internally within the organization. This may be due to the fact that the GI team barely exists for two years. They have kick-started platforms such as LOOP and 'Beyond 2020' interviews, but internally the team does not fully facilitate (international) connections between employees (yet). The team mostly connects

different employees functionally, so when they are needed for concrete projects. She states: *'The global innovation team is profiling itself externally very well, but the team is not sufficiently connected to the internal organization and is neither facilitating a lot of connections between employees. Perhaps this is due to a lack of time. [...] Global executive directors would do well to give more time and space to the innovation team to connect themselves to the larger organization. Anyone can email an idea for sustainability innovation to Nigel Stansfield, but does that mean that it will be picked up or that something will be done with it? Local ideas are always possible, but the company needs to ensure that employees have more direct influence on the global innovation agenda'*. At the same time, it must be acknowledged that ideas can always be suggested to supervisors or to other persons in the organization working predominantly with sustainability issues such as the manager of sustainable development. Hence if an idea is truly viable and carries significant potential and if the employee him or herself invests sufficient time and effort, it will eventually arrive at higher organizational levels of which Re-Use is a good example.

### 6.2.3 Risk taking and entrepreneurship

*'Once we were in a meeting with other companies wherein Geanne mentioned that Interface invests and tries out non-proven technology. In most companies such risks are inconceivable. But Geanne simply said: 'Of course we use this, otherwise we are not going to achieve our mission. [...] It seems impossible to achieve this top, but we are going to do it!'*

-male, financial control

According to the experience of employees, Interface does not tend to hesitate or act economical when it comes to experimentation, change, risk taking and investment in projects for sustainability innovation. It seems evident amongst respondents that sticking to current mainstream technologies and without taking risks, Interface is not going to achieve its mission. One respondent (male 3, sales) tells: *'You need to start with something. Surely Interface makes mistakes. This costs a huge amount of money and the company invests a lot as well, but ultimately we are getting there. For instance with a trajectory like Re-Entry we take risks that we certainly take into account and negotiate, but without any risk at all we will not get there. I see this as 'having guts'. [...] I find it fantastic that a company invests so much money to achieve its objective in 2020'*. Another male respondent (planning) argues: *'Interface's culture is not so afraid of change. I am sure that within 5 years everything will be different again. If planning wants to develop new systems, it is definitely possible. [...] There is some sort of winner's mentality here, partly thanks to the successes of Mount Sustainability: 'I take up something new and I'll see where it goes'. [...] At every department there is also a sense of entrepreneurship.'* One of his colleagues from planning also comments: *'A lot is initiated, but is later on also stopped, because it does not work. In that sense we definitely experiment'*. Another respondent (male 1, sales) says: *'Even during the financial crisis we invested in new tufting machines. That we had the guts to do so makes the company special. [...] The carpet industry is pretty traditional, so it was almost a culture shock in the market when Interface introduced Tactiles'*. Finally, another male respondent from Intercell says: *'In my experience there is a lot of willingness and openness to innovate. Of course it depends who is taking the lead and who has sufficient drive, but the company is continuously developing. Wanting to be a frontrunner also means that we need to go first. The pressure is there, during every quarterly meeting someone from product development asks why we don't develop a tile that we can completely recycle. [...] Interface never stands still, but always looks for new possibilities'*.

However innovation risks are basically always related to financial considerations. According to a male respondent from financial control, projects are managed by striving to optimally gain from a certain project (i.e.: commercial success, environmental impact or innovation learnings) with as minimal financial investment and risk taking as possible. This means that risks are indeed taken, but not without elaborate consideration. Besides there is a limit to available budget so 'smart' choices have to be made. As such external consultants carry out feasibility studies, examples are searched and projects are divided into several phases, in order to control financial risks as much as possible. There also seems to be a common belief that learning from pilots and innovative projects in terms of what works best and what does not and what possible pitfalls are, are a reason to invest even though it is clear that the idea itself will not become a commercial success or will fail to be implemented. The same respondent tells: *Several years ago we started 'Just' which has never been fully implemented. During the development stage employees from various departments (e.g.: marketing, product development) from various continents collaborated with external sustainability experts and NGO's to see if it would be possible to produce a biodegradable carpet tile. This tile would have to be physically as well as socially sustainable by including local communities and craftsmanship in developing countries. Nevertheless Interface knew beforehand that it would not become a major commercial success and that this innovation would not be fully adopted. Yet the U.S. board of directors still approved of delving into the project in order to learn and to build experience, they found it worth the investment.'*

In addition, a sense of risk taking is also related to the wider organizational culture. In section 5.4.1 'Employee autonomy', the experience of autonomy among employees and having 'the freedom to do what you want, as long as you contribute to the company' has already been explained. This experienced autonomy conditions and seems to foster a sense of entrepreneurship, or rather 'intrapreneurship'. Box 6.3 contains several quotes that

illustrate commonly experienced perceptions around the role of an entrepreneurial attitude and how this is related to innovation.

#### BOX 6.3 | ENTREPRENEURSHIP

- 'A proactive and self-initiating attitude is highly esteemed: it is appreciated if an employee has a broad and a cross-border scope. [...] It is also important to know the organization as an internal network in order to know to whom to go and which competences are needed'
- 'It is dynamic, there is always a lot going on such as general procedural and systems' changes like every other company, but also major innovation projects and employee changes. You need a high degree of adaptation and flexibility. I'd say: never a dull moment at Interface'
- 'There is nobody who is walking through the office asking everybody the entire day: 'Do you have an idea? Just do it! No, well do you perhaps have an idea?' Instead we need to take up initiative ourselves and pursue our own ideas. The company is open to ideas, but you need to take your own space to do so. Nobody is pushing you. If you stick your hand out for assistance, there will always be somebody who pulls you up, but nobody will bring you a stepladder and hold your hand'
- 'Even our EMEA director Rob Boogaard says: 'If everybody only does what they have to do all day long, then something is not going well within the company'
- 'It is not like: 'I am the boss and you carry it out'. On the one hand this means we need to solve our own problems or as a department. So it is fine if you do your own thing here, as long as it is solved. On the other hand, this precisely creates space for innovation within our culture'
- 'I believe innovation really comes from the people at Interface: 'I have an idea and I want to carry it out'. Then your supervisor will normally say: 'Good idea! Go and do it'. There are of course procedures, but you really need to do it yourself and you need to find your own way: there is space for it. This gives another sort of creativity than when somebody says: This is the team and you do this and you do that. [...] We have some sort of hero culture: we love superman!'

The quotes from box 6.3 illustrate that finding your own solutions, a 'just go and do it' mentality, daring to take up initiative and going beyond what is merely expected in terms of daily obligations, is appreciated. Indeed several respondents have argued that what characterizes working at Interface is the fact that a sense of entrepreneurship is valued. Again this means: *'People should determine themselves what they need to do, if you have a problem you figure out your own solution, you don't sit around and be told what you should do. Neither do managers have many secretariats or administrative support. They need to do a lot themselves'* (male 2, marketing). According to the experience of respondents this also means that there are ample possibilities to initiate a project or improve current work procedures, but the basic mantra is: go for it and find out what is needed, who you need to involve, which material and what the required budget is. Such an attitude obviously requires self-initiative and personal investment in terms of time and energy.

Moreover this commonly experienced space for an entrepreneurial attitude is also related to the fact that expressive and creative people are valued, since these are often types of people who are less inclined to simply follow regulations and expectations. A female respondent from HR states: *'Of course we need people who are operationally very structured and capable. Yet sometimes we also deliberately choose for people who are a 'little crazy'. You need to dare this as a business company, to include people who fly into different directions, have various interests and who may be a little chaotic'*. Another male respondent (Intercell) comments: *'Sometimes you need a rara avis. For instance our Scandinavian sales director is creative, fresh and a little different. He is not the type of person who simply follows rules. [...] If you have a number of employees who are like this and who can connect well with each other, then you can go from 'good to great' as a company'*. One of the employees in Scherpenzeel who clearly embodies entrepreneurial and creative skills is the manager of sustainable development. In section 5.1.3 'Employee engagement levels: individual active involvement', I already described the importance of her work in terms of external relationship building and her role as a knowledge broker and connector. It is important to emphasize again that her work and entrepreneurial skills are seen as highly valuable and indispensable for Interface. *'She does her work really well: by showing initiative, by pulling us together and by spreading the sustainability story to keep everybody motivated'* (male, planning). Another respondent (male, Intercell) argues: *'She is connecting everything together within Interface, but also to external organizations. She used to be an independent entrepreneur herself, but now she is creates a platform for Interface. Business companies need these kind of persons: people who are open and honest, who don't push their own ideas at the cost of the ideas of others, but instead who want to include everyone out of one's own initiative'*. As mentioned before, The Warehouse is a good example of why an enterprising attitude is so important. Due to her perseverance, the Warehouse now generates a significant amount of goodwill, networking and product awareness. Shortly the abovementioned above all indicates how crucial entrepreneurial skills among employees are, to foster and realize innovative ideas.

Nevertheless, three issues have been highlighted. Firstly, the fact that a relatively high level of self-initiative and an entrepreneurial attitude are appreciated, but also required to realize innovative ideas within Interface means that ultimately only a small percentage will actually make clear choices, act upon this and invest time and energy. One respondent (male 3, marketing) explains: *'There is a culture of taking risks, of sharing innovations*

*and we have an ambitious vision. But it requires some searching! The moment I started working here, the rate of innovations was overwhelming. Yet after a few months I started to get used to it, also to issues that are structurally going less well. In the beginning you become discontent, then over time you accept such issues. So then I was inclined to believe: it is no longer possible. Indeed it still is, but you need to do it yourself'. Yet even though understandable, most employees are not eager to pursue an idea to such a large extent and take up more responsibilities than required. A respondent for instance argues that as a production line manager, he does not feel much for mobilizing other departments and relevant employees to improve internal communication to the production employees. He has already addressed this issue with his supervisor. 'I discussed it with my supervisor, but we haven't gotten further than talking about it. Yet my core business is to ensure that production keeps on going. I have addressed it and now I believe it's my supervisor's job to do something about it'. An alumnus of Interface comments: 'Most employees do not sufficiently chase certain issues they want to change or ideas they have. This is really a gap in the culture in terms of personal leadership. This should be stimulated much more within Interface. It is important for people to know their drive, to lobby for them and to have the energy to develop their ideas'.*

Secondly it not only requires commitment and perseverance, but equally personal risk taking and courage. A respondent from marketing (male 3) explains: *'If you contribute an idea for a project, it means that you need to stick out your own head. As a company we can do this, because our CEO will be responsible. Yet within the company – it will be your own head. [...] I initiated a new digital tool for project management. I am the one who is accountable if consequently processes do not go well or if somebody does not understand it. It is not part of my main work, but I have initiated it. So I am also the one who needs to figure out how it works if it does not'.* This quote indicates that even though within the organizational culture there is openness to ideas and employees' contribution, it remains a commercial business organization that is equally focused on personal responsibility and performance, which paradoxically enough creates a certain degree of 'risk' or 'unsafety' to take up personal leadership. Finally this sense of loose and informal connections, a large degree of autonomy, solving your own problems and entrepreneurship that is present, tend to foster innovative capacity. However this is not necessarily the most efficient and structured way in terms of daily procedures, but also in terms of improvements and long-term innovation projects. As mentioned before, examples are recent software implementations, the global invoice system, Google Drive and the need for more structural cross-fertilization between departments and various continents.

#### 6.2.4 Cross-departmental collaboration for sustainability innovation

Firstly, I have explained that not every department equally contributes to Mission Zero and that especially technical departments have more large-scale impact on sustainability objectives. Secondly, I have also explained that in employees' experience horizontal communication between departments should improve. As a consequence many respondents also believe that cross-departmental collaboration and meetings *in general* between employees to share knowledge and to remain up to date about each other's projects and responsibilities could increase as well. Thirdly in this chapter that is focused on innovation, I will elaborate on cross-departmental collaboration specifically with regards to *sustainability innovation*, rather than in terms of daily and more general workflows. How these three issues are interrelated will become clear in the next chapter: 'Theoretical discussion and analysis'.

*'Everyone is to a certain degree occupied with sustainability, but I don't believe there is actual cross-fertilization on the shop floor, Instead real co-creating and development of innovations is mostly done on a higher management level. There is certainly a gap there. [...] I sometimes also wonder if the necessary information is arriving at the right persons.'*

-female, design

On the one hand, respondents do argue that cross-fertilization for sustainability innovation is possible: *'You can basically exchange thoughts on sustainability with everyone regardless of their hierarchical position. [...] You can also try-out and share your ideas first with colleagues to see how others react. It is not the case that someone from sales frequently talks to a production employee, but it is certainly possible. If you have an idea for sustainability, it is possible to make an appointment with everyone or simply walk into their office'* (male 1, sales). On the other hand, that it is possible does not mean that it actually happens. With regards to physical workspace, I have not observed specific places such as brainstorm labs, nice coffee rooms or 'living room' places to sit to cross-fertilize ideas, knowledge and experiences. Neither the lunch cantine is designed in such a way that it fosters cross-fertilization, which is indeed the case with Google<sup>43</sup>. In fact during lunch, departments

stay together at a specific table and do not seem to mingle much. There is an important place for larger (external) events and gatherings, but this is not meant for daily internal social interaction and cross-fertilization. The former § 6.1 also indicated that regular cross-departmental brainstorm sessions, or rather meetings between technical experts should increase. Indeed when it comes to cross-departmental collaboration for

<sup>43</sup> Google is of course a much larger company, at least 8 times as large than Interface. Yet the company offers free and healthy lunches for its employees prepared by 40 different cafés, places to eat and lunchrooms located within the Google campus. As such the idea is that everyday 25000 employees can mingle during lunch, depending on their specific choice of lunch. Retrieved from: The Volkskrant, 15<sup>th</sup> October 2015.

sustainability innovation, many respondents argue that cross-fertilization happens on a higher hierarchical scale, but not on the scale of employees who actually need to work or test such innovations. Thus the same issue (i.e.: the need for more internal connections, better cross-departmental communication and overview to increase collaboration) that is experienced in terms of daily work and responsibilities is not surprisingly, also an issue on the level of innovation processes.

Besides one respondent (male 2, production line manager) also argues that sustainability and Mission Zero have become 'normal'. As a consequence employees do not tend to talk much about sustainability with various departments, precisely because: *'Everyone knows more or less what Interface's goals are and where the company aims to go. So we don't talk much about it; sustainability has become a habit. I am talking more about sustainability at birthday parties than for example with the HR department'*. Unfortunately due to time limits, I could not research the issue of habituation extensively, but it must be acknowledged that habituation is in many instances a potential organizational blind spot in terms of organizational learning and innovation. The alumnus of Interface also argues that co-creation can only occur if employees and departments are informed earlier during the process what goes on. For instance one respondent indeed states that the PVB project is already going on since 7 years and that they do not hear much about it, until it is actually finished. *'I believe employees need to become more part of long-term innovation processes, it is important to ask more help from their side'* (female, alumnus Interface). However there are two main reasons why cross-departmental collaboration for sustainability innovation is not necessarily feasible and unproblematic. First of all, box 6.4 explains the issue of required expertise, specifically with regards to product and operational innovations.

#### BOX 6.4 | EXPERTISE

Justifiably a number of respondents have argued that it can also be difficult to engage employees, because especially physical-environmental sustainability innovation requires a certain level of technical know-how and expertise. One male respondent (marketing) states: *'Employee engagement is very important, but in reality it is neither practical nor very efficient to include all kinds of feedback from employees for product innovation. For some people this may not be so interesting, I mean: what would a marketing specialist know about chemical material research?'* Another female respondent (design) tells: *'As a concept designer I am not directly involved with the PVB project. It is something we do together as a company, but practically speaking it is part of the work of product innovation and development.'* Another female respondent (HR) also says: *'To foster general employee feedback during the initial stages of product innovations is not appropriate, not everyone has sufficient know-how and technical vision'*.

A male respondent from PPI himself states that everyone out of his or her own expertise can indeed come up with sustainability ideas or suggestions for other specialisms, but it is up to the specialist to determine how viable such an idea actually is. Moreover different employees from various departments have had collective sessions, yet ideas tend to become rather global. *'They are written on a poster and consequently nothing happens. Everyone returns to their daily work. So actual new products don't come out of such sessions. Yet ideas are always welcome, but the development has to be done by specialists'* (male, PPI). Once in a while out of these sessions initial ideas and new concepts can indeed result, such as the leasing of carpet tiles (i.e.: an organizational/economic type of innovation). However for technical product and operational innovations, more structural in-depth teamwork as well as research and development are needed. This means that if for instance ideas for new products come out of cross-departmental meetings such as during ambassadors' gatherings, an actual team of technical experts is still needed for development and realization, otherwise such ideas remain stuck on a surface level. This implies that even though employees are allowed to suggest ideas, generally suggestions have the highest chance of effectiveness if these are closely related to employees' own work environment. For example production employees could not have contributed to the development of Net-Works. Despite the fact that production employees are ultimately the ones who need to produce Net-Works' carpet tiles, Net-Works simply had to be developed by a team of internal and external experts.

Secondly the alumnus of Interface argues that though the shared goal of Mission Zero is generally clear and well known, departments are still too much on their own. On the one hand this is partly due to the fact that the organizational structure of Interface does not differ much from other business organizations. The female respondent from HR says: *'We have cross-departmental projects and matrix'<sup>44</sup>. Yet even though I am not allowed to say this from the executive team, I believe we still largely think in vertical columns of operations, sales, finance and the like.'*

At the same time, according to respondents there is not an explicit or 'special' structure to facilitate collaboration or rather daily cross-fertilization between departments for sustainability innovation. This is illustrated by a respondent (male 2, production line manager) who indicates that when he has contact with other departments such as HR or IT, they do not frequently talk or exchange ideas about the topic of sustainability, but rather discuss work related issues. On the other hand the fact that departments are too much on their own is also because of the following: *'Departments such as PPI that actively work with sustainability do*

<sup>44</sup> Matrix is an organizational structure that enables employees with similar skills to be working together in project groups. Employees can be assigned to different groups with various managers or project leaders. Matrix is also used to manage cross-departmental teams. Retrieved from: <http://www.global-integration.com/matrix-management/matrix-structure/matrix-organization-structure/>

not have much connection to the rest of the organization. It is really a question of interconnection and fitting the puzzle pieces together, because for many departments it is not clear what their role is within the larger whole working towards Mission Zero: 'What is the department's vision; what do they contribute to the mission?' If this is unclear among employees, there is not much to talk or collaborate about' (female, alumnus Interface). This has also been illustrated in section 5.1.4 'Employee engagement levels: differences between departments' (departments do not know if they can contribute more than for instance less printing) Responses from other interviewees seem to confirm this critical remark, which suggests that departments as a totality (so not necessarily in terms of individual employees as such) are unclear or uncoherent about their role within sustainability innovation and Interface's mission. For example one male respondent (design) says: *'We don't develop the product; we only work with the collection and apply this to a concrete project. So I don't know how innovation processes actually work. [...] As designers working in The Awarehouse we are not much in contact with other departments working in the office'*. His female colleague also tells that she already worked at Interface for two years, before she actually met a colleague from product development for the first time: *'I only got to know her, because I was allowed to go to a circular economy workshop. I asked my supervisor who could come with me and only as such I realized I did not know anyone from product and research before [...] My other colleague already works here for 8 years, but I don't know if she knows colleagues from product and research. I have never seen her talking to one of them. Once I came across an idea of LEAF<sup>45</sup>, but initially I neither knew whom to approach. So it would be good to connect more internally.'*

### 6.2.5 Organizational communication of Mission Zero and sustainability goals

Despite various perceptions and experiences of how well sustainability issues and Mission Zero are communicated, it can be argued that employees generally find that they are kept sufficiently and openly informed about the latest sustainability updates. However, at the same time most respondents are unclear about where Interface is precisely standing in its journey towards Mission Zero and the exact status or reason for certain innovation projects are neither always evident to employees. At the same time the amount of information in terms of news, update emails and meetings is significant. There are two main channels through which employees are kept informed.

Firstly, four times a year there are quarterly meetings that can be voluntarily visited by all employees. During quarterly meetings members of the European board of directors present the financial and sales results<sup>46</sup>, but also other (visual) information around new product lines and what they contribute to sustainability objectives, which major investments and projects have been going lately (e.g.: biogas, biobased yarn), what challenges there are and what the next strategic steps will be of the company. Sometimes employees are also invited to tell about innovative projects such as microtufting, Microsfera and PVB. Quarterly meetings are meant to keep the entire organization up to date about global developments, without them having to know all indepth technical details.

It must be stressed that only once in a while during quarterly meetings Mission Zero is explicitly discussed. Most employees do not know where Interface is precisely standing in its journey towards Mission Zero. This means that the exact quantitative impact and results of innovative projects is not always clear to them, neither is it always evident what the status is of certain projects or why they have been started. One respondent (male 2, production line manager) says: *'It is of course difficult to quantitatively estimate where we are right now in our journey. They do not communicate where we are exactly standing and of course, the last mile is always the longest'*. Another respondent (male, credit management) states: *'I don't hear much about the status or conditions of certain projects and pilots around product innovation and energy for instance, until they are fully adopted.'* Another male respondent (laboratory) tells: *'We have quarterly meetings, wherein they announce that certain projects have been approved by the U.S., but the board does not always communicate specifically why and with what objective they have started such a project.[...] Everybody can ask questions during such meetings, but it happens very little'*.

*'They do communicate a lot about sustainability projects, but I do not know if we are going to make 2020. But I do feel that we are constantly busy with it through emails, awards, ambassadorship trainings and an international documentary that we made called I AM Mission Zero'*

-male, customer service

This also implies that generally employees are uncertain about whether the company will achieve their goal of zero environmental impact in 2020. At least 22 respondents have argued that they do not believe or wonder whether Interface will achieve this goal, even though specific locations such as The Netherlands are relatively close to achieving Mission Zero and despite the fact that many employees are of the opinion that the company

<sup>45</sup> At a design fair the respondent encountered LEAF, which is an object that produces oxygen and extracts CO<sub>2</sub> from the air. Consequently on LOOP she shared her idea to develop a carpet tile with these functions with the departments of product development and product and process innovation.

<sup>46</sup> Such transparency around financial results is not necessarily common in every business organization. In other companies financial results can be kept private for top management only.



is certainly going in the right direction and has achieved significant sustainability results. However, it is also a matter of proactively looking for or being open to information oneself. For instance employees do not use the ecometrics much, most do not look at the publicly available data or some do not even know how Mission Zero is exactly measured, which means that they do not know about the existence of ecometrics. However it also depends on one's professional role. For instance among sales personnel this is very different, because information and updates are vital for their work. *'I am a speaking platform for Interface. I know that globally we are approximately at 85% of our journey. But you have to know where to retrieve such information. I do it myself through LOOP, interfaceglobal.com; the ecometrics and reading news emails; from a sales perspective I need to know this for our customers and public relationships'* (male 2, sales).

*'You are simply taken along with the success of Interface through quarterly meetings wherein results are shown, award notifications, Dr. Zero, social media and sometimes the office corridors. We are constantly confronted with it, this keeps us engaged'*

-male 2, finance

Secondly as already mentioned in several quotes Rob's Roundup, which is a monthly video message from the European senior vice president and CEO and Dr. Zero are other communication means to keep employees informed about sustainability topics. The U.S. once in 1 to 2 months sends an email with updates and performance results, but it seems to be the case that communication is mainly focused on what happens in Europe or specifically with Interface, The Netherlands in terms of regional or local sustainability projects and initiatives. Specific departments are also kept up to date through WebExes. One female respondent (design) tells: *'Nigel Stansfield also informs the design team each quarter through WebEx. For example regarding which products are sold within what amount of time. This is our best source of information, but it is not open to every department. Yet compared to other companies I worked for, I believe I hear much more of what is going on: they are very open at Interface'*. Another respondent (male 3, sales) says: *'Knowledge around new product innovations mostly starts in the office corridors. Quickly after that our sales department receives a WebEx, as a sales employee am I always eager to know about new products and collections'*. Furthermore one of my respondents was willing to send me three Dr. Zero emails as fieldwork material. This internal newsletter is meant for EMEA and usually gives an overview of the latest awards, social media updates, notes on speaking events, ratings about products and meetings of executives with national or European Union politicians. Sometimes the latest European ecometrics are also shared, or a short historical overview of achievements for example in the usage of recycled or biobased raw materials including future developments as well as links to resources such as external reports, videos and infographics. Other emails around sustainability are sometimes also sent, which are exclusively meant for The Netherlands or for several departments only.

*'We could make the mission more visible, for example by showing news on the same website that we also use for applying for leisure hours. Yet it is above all important to not force people to read all the news that comes past'*

-male 2, finance

Yet similarly as with LOOP, employees who are relatively less well educated and who are often employed at the production plant or laboratory, do not feel much affinity with Dr. Zero partly because of the language and the fact that there is little access to computers in the plant. One respondent (male, laboratory) states: *'We do get emails, but there are always in English. So I always think: 'What is this of use to me?' I tend to stay up to date by talking to colleagues'*. On this issue I will shortly elaborate. Especially in relation to the production plant, communication around sustainability and Mission Zero can improve. As was already mentioned by several respondents, amongst others LOOP and Dr.Zero are not very accessible to production employees. One male respondent who is production line manager tells about his own experiences: *'I don't have to offer Dr.Zero to production employees, because nobody reads that. My own English is neither very well. I sometimes wonder why such information is not translated. All information that goes to the media and our customers can be given more to our own people as well. Otherwise we forget how well we are doing. [...] In this sense Interface can make an extra step, especially with regards to the production employees on the shop floor it is very important that they equally know about new developments. It is really a question of: do we reach everybody within the company?'* He also tells that he is the only production line manager of the 5 or 6 in total, who is at times active with sharing brochures, posters,

*'I don't know the latest numbers of Mission Zero or which innovation projects there are currently going on. I need to inform myself of course, but it would help if the website would be completely in Dutch. I don't know why they don't translate it for us.'*

-male 2, production

newspaper articles and (interview) videos on factory placards and screens in the employee canteen: *'I think employees really appreciate it. They would never say: 'How nice!' Yet if they are reading some articles on the placards, that is already enough. If I don't do it, they won't read anything at all'*. Moreover he is aware that verbal communication is highly important to employees who are not used to reading much or to the English language. *'I try to explain to my five teamleaders and sometimes to employees themselves what sustainability is: to think along how we can work as economical as possible with less waste or rather understanding that waste is not 'normal'. Sometimes this can be difficult. Everyday working for 40 years behind the production machine can make you less alert. [...] I also try to explain the value of a carpet tile for instance by telling them about Microsfera's innovations and then you see that employees are really interested. If you don't share this with them, they will not*

*know. Regardless of the fact that we currently still have production issues with Microsfera, it is still important they realize that this is the future and that they are included in the whole story. [...] Talking once a year about sustainability is simply too little. People need to know every week, every month about what we do well and what we don't.*

## § 6.3. FINAL REMARKS ON SUSTAINABILITY & HUMAN SUSTAINABILITY

### 6.3.1 Prominence of sustainability thinking within Interface

In this section I aim to give a final descriptive account on how specifically environmental-physical sustainability thinking is prominent within Interface, according to the experience and perception of employees themselves. The former sections have touched upon various issues, examples and countless ways in which sustainability is playing a role within the organization. This final section exemplifies that in a certain sense sustainability is 'everywhere'. Several respondents have given diverse information.

Firstly the following indicates in what way sustainability thinking is truly part of Interface's core business strategy. After Anderson passed away in 2011, there was much discussion regarding what would happen to the mission. One male respondent from finance says: *'The new CEO visited some of our divisions with the message and question what Ray's passing away would mean for us. The answer was that Interface would carry on with sustainability unabated'*. Another respondent also tells (male 2, sales): *'I also asked Dan Hendrix: 'what if we no longer want to be a sustainable business, what will happen then?' His answer was very simple: 'Well, this would cost me my head, because we cannot do otherwise than sustainable business. This is simply the way we do business. We have taken this direction and there is no return. You can only go forward'*. 6 respondents have explicitly expressed that sustainability has become embedded into the genes of Interface. One respondent (male 1, production line manager) says: *'On the long term we are so occupied with sustainability, we have objectives we need to achieve. That is why the 'train' needs to carry on. It has become part of our make-up'*. Another respondent states (male 3, sales): *'We cannot do it differently – neither do we want to, because we earn money with our sustainability strategy. At least in my work it is integrated into all what we offer: our brochures, presentations, the website, product development and service innovations. [...] Nature's processes also inspire our product innovations and designs. Now we are trying to develop a new production plant that can function as a forest'*.

Secondly, several respondents have also argued that this can be illustrated by the fact that employees themselves are not so much surprised anymore by what the company does, but external parties are often impressed. For instance one respondent (female, travel) states: *'Every quarter I have a meeting with travel managers from other companies such as consulting agencies, multinationals and SMEs. Then I do notice that people tend to think: 'Wow, you indeed do a lot'. [...] When we got into contact with KLM and Sky energy they told us that due to the nature of our questions, they could tell that Interface had built much more expertise and knowledge on business sustainability than most other potential business partners.'* The same respondent also emphasizes that sustainability is truly taken seriously: *'Of course there are issues that need improvement, but if Interface would not be operating with integrity we could not have persisted for almost 20 years with this mission. Ultimately someone would have exposed that the company is greenwashing'*.

Finally sustainability is integrated into the company in various other ways. Out of the former sections on innovation it can be argued that especially environmental sustainability is a core factor and as many respondents have argued: it is not greenwashing; Interface *actually* does act upon it. This can also be illustrated by several other cases. The head of the technical support and maintenance department explained that they signed a contract with a supplier to replace a device for one that would be more energy efficient. The supplier told him that the head of technical support at another company refused to invest in the device, because the energy usage was not impacting his individual operational budget. In contrast, the respondent argues that at Interface sustainability is seen as an organizational aspect that does not depend on one's individually granted budget. During an interview for Beyond 2020, the male respondent from PPI states that he believes that the next mission should be focused on health and humanity. The first in terms of creating healthy products with zero environmental impact and the second in terms of human dignity and including others in one's success. *'To be a leading example for society as a whole'*. Besides: *'Sustainability resides in the core of the organization at large, because despite individual employee turnover our mission remains'* (male 1, customer service). Another respondent (female, HR) argues that Interface's sustainability mission inform the main strategic objectives, trainings and innovations.

Another respondent (male 3, marketing) tells about a recent European marketing meeting: *'We would go karting. Yet some thought this did not suit Interface. They said: we are going to do something else. So ultimately we decided to go to Amsterdam to fish and take out plastic in the canals. [...] This is all very typical for Interface: the fact that we decided to do something else and took up the initiative to make the event more sustainable and actually did so, and the fact that plans were changed one day in advance.'* This quote implicitly suggests the respondent's

perception. On the one hand it indicates an entrepreneurial and self-determining attitude geared towards sustainability that is characteristic for Interface. On the other hand it implies the ‘sudden change of plans’ vibe within the company that is rather unstructured and not very well planned in advance. Another respondent (male, technical support and maintenance) argues: *‘I believe that if more corporate companies would formulate an objective similar to Mission Zero, we would create and unleash so much work and ‘things to do’ around innovation and optimization to achieve sustainability. [...] That would just be fantastic! We create work, we all earn money and we make the world a better place’.*

All these quotes illustrate specific views around sustainability thinking within the company. Some highlight how ingrained sustainability is within the strategy and within their consequent innovations as well as employee programs, other quotes emphasize how much Interface is working towards sustainability compared to other organizations. Again other quotes indicate that sustainability is genuinely meant and related to ‘positively contributing to the world’ and apparently when it comes to informal employee events outside of the office, sustainability is taken into account.

### 6.3.2 Human sustainability and stakeholders in developing countries

I have defined corporate sustainability innovation also partly in terms of internal human needs *within* the organization among employees. I have already given a descriptive analysis of several other types of innovations in terms of people and organizational (amongst others The Awarehouse, The Ambassadorsnetwork and the Young Potential Program). Nevertheless despite these programs, innovation in terms of people and culture does not seem to be very present within the company. One male respondent (IT) says: *‘Interface is always occupied with product and process innovations, but regarding company culture this is less. The way we do our daily work is still pretty traditional’.* Another male respondent (marketing) states: *‘But we don’t regard organizational innovation has part of innovation. Instead we are focused on innovations that improve our physical sustainability and take us towards Mission Zero. [...] I believe we can achieve more in terms of HR’.* Box 6.5 shares the vision of the HR department, which is based upon an interview with the HR manager<sup>47</sup>.

#### BOX 6.5 | HUMAN RESOURCES

##### **Required competences**

As a HR manager she formulates what competences are needed, what behaviour is favorable and how to measure these, especially when she needs to recruit a new employee together with a (senior) manager. Also if an employee is not functioning well, it is the responsibility of HR to give additional support or coaching. Regarding her vision on HR, it is mostly a matter of tailor-made work at Interface: in each individual case it is important to feel what is appropriate in terms of human needs: what does the specific employee find important and what are his or her ambitions; what can a manager handle and what is needed? The respondent appreciates values such as personal leadership and entrepreneurship, but she also argues that she does not find these values very clear: ‘How can you measure this? Then you need to be more specific and translate a value to what behaviour you want to see from people and which competences such as autonomous working attitude or taking initiative. Otherwise people will not understand what you mean.’

##### **Career development**

Furthermore there is indeed no career or personal development plan for each employee. This is partly due to the fact that it is largely infeasible to make and keep track of 350 development plans. She argues: ‘We can definitely set up a career or personal development plan the moment someone is driven and performs well, so when they really want it themselves, but it should not become standard for everyone. That is undoable’.

##### **Communication and reflection**

‘Espoused values’ do not matter as much as giving feedback, ensuring that information is repeated and well explained, that the organizational story is clear and that departmental managers ensure that everyone in their team stays up to date. The respondent believes that this information flow increasingly functions better, because they tend to hire managers who find this important.

According to viewpoint of the respondent, reflection is highly important. The executive board certainly does this. However she argues that she does not expect every employee to do this as well: ‘We are to a large extent a production company. I do not expect production employees to answer all kinds of difficult reflective questions. It is also because some are foreign immigrants who can barely read or write Dutch. You have to take this into account’.

##### **Sustainability innovation**

Finally regarding innovation, in her point of view it is mostly the technical departments who are responsible for sustainability innovation within the company. Also the respondent separates the strategic business objectives of sustainability and innovation from HR. She seems to place strategic objectives first in terms of importance compared to HR: ‘The strategy determines the supportive role of HR. HR is indeed a business partner, but it is more important that the employees know how to deal with our strategic objectives.’ She also argues that they mainly determine in the beginning of the recruitment process whether a person suits an environment wherein innovation and sustainability are important.

<sup>47</sup> There is no European HR manager. Instead there are several managers within Europe who have divided regions amongst each other. In the past there used to be a European HR director. Yet this function disappeared, because the European Vice-president and CEO back then, decided that HR programs on a European scale would be too costly. Recently Interface recruited a global HR CEO in the U.S. head office.

Human sustainability outside of the company can be related to various societal issues. According to respondents and also out of my research findings it appears that sustainability at Interface is predominantly focused on physical-environmental sustainability with regards to product and operational innovations. It is remarkable that such a forward striving company in terms of environmental sustainability has not further espoused mission in terms of external human sustainability than the CSR program on their website. Nevertheless, Interface has invested in innovative projects and pilots such as 'Just' and 'Net-Works' to include local communities in developing countries in their value chain. In the next chapter 7 'Theoretical discussion and analysis' I will compare Interface's inclusive business model to CSV. However, compared to the number of technical innovations to achieve zero environmental impact, there has been relatively little attention given to the social side of sustainability (i.e.: Fairworks started in 2007, Net-Works was kick-started in 2012, whereas Interface's sustainability journey already began around 1995 and gained momentum around 2000).

*'A colleague won the Ray Anderson prize, because it was his idea to cover all energy tubes in the production plant with special blankets. He won €10.000 which he donated to poorer communities in Romania.'*

-male 2, marketing

Hence despite the major success of Net-Works, according to respondents not only the social side of sustainability can improve in terms of hiring personnel with an occupational disability, but also with regards to developing countries. Indeed according to Nigel Stansfield, part of the vision for 'Beyond 2020' is to truly become a restorative enterprise both in physical-environmental as well as social terms. The latter means to increase sensitization of stakeholders, to create more community around Interface consisting out of other initiatives, partners, customers and suppliers, which includes developing countries and transforming value chains. Nevertheless, according to several respondents societal awareness is relatively high within the company. This is for instance exemplified by the fact that if employees win an internal award or after they have been employed by Interface for a number of years and hence receive a bonus, they tend to contribute this to charity. A final example is that carpet tiles are sometimes given away to social organizations such as churches. The male respondent from after-sales tells: *'If Ray would hear that I have given away 2000 square metres of used carpet tiles to give them a second life he would agree, because in our view a product needs to be at the full end of its lifetime before we recycle.'*

## CHAPTER 7 | THEORETICAL DISCUSSION

In this chapter I will give a more theoretical and analytical discussion based upon the described research results from chapter 5 and 6. In this analysis I will use the theoretical approaches as specified in chapter 3. These are the multi-level cultural systems framework and the learning organization from Senge. In addition, I will use the institutional innovation model, CSV and two theoretical tables specifically focused on the relation between organizational culture and innovation (processes) for sustainability. It is important to give a theoretical discussion on the research results to develop a better understanding of the case study and to generate accurate knowledge that could be applicable to other business organizations. This theoretical analysis will ultimately also inform chapter 8 wherein a final recommendation is given.

### § 7.1 THE ANALYSIS OF BOC BASED ON THE MULTI-LEVEL CULTURAL SYSTEMS FRAMEWORK

#### 7.1.1 BOC as a sociocultural system

##### *Physical office environment and formal organizational structure*

Regarding culture as a sociocultural system, material phenomena that are present within the organization can be regarded as on the one hand highly innovative in terms of products and services, technical operations and production processes as well as partnerships. On the other hand, other material phenomena such as the physical interior of the office (e.g.: coffee rooms, lunch canteen) as well as daily tasks and the formal organizational structure (i.e.: vertical columns, specific departments, managers and teams) are not very innovative. In fact, they are more common and could even be seen as 'traditional'. Yet the office building itself has been designed with environmental awareness (e.g.: no air-conditioning and sustainable wood).

##### *Official employee issues*

Another material phenomenon is that dress is rather informal. In addition, taking external courses and trainings is possible if employees apply for it themselves. The HR department does not systematically organize a career development plan for every individual employee. Relatively speaking there is a significant number of employees already working for a long time (i.e.: from 15 up to 45 years) for the company. Younger employees are definitely present, but are not as many. The Young Potential program has been established to develop and keep younger employees and to facilitate more collaboration between (international) departments. Finally, there are internal contests and informal events such as employee parties to foster employee engagement.

##### *Daily work, communication and cross-departmental collaboration*

Other material phenomena are that the majority of employees are mostly doing their daily work, without much proactive engagement with sustainability (e.g.: idea proposals, project initiation, ambassadorship). Daily work processes are also rather autonomous, instead of centrally predetermined step by step by higher management levels. Socio-culturally this means that employees can arrange their own working hours as long as they work 8 hours a day, generally they need to find their own solutions or together with other colleagues when encountering problems, they can choose to take up their own projects and independently organize their work differently or depending on scale and impact, in consultation with their supervisor. Finally daily work also tends to be busily occupied with primary tasks and targets, regular organizational changes such as system updates or the introduction of entirely new work applications, product launches, events and visitors as well as news around sustainability innovations are common.

Furthermore the official vertical communication structure within the organization is as following. The European executive board has several direct reports (middle-level management) who need to up date their specific teams or departments within 3 to 5 days after the first information sessions. However, this does not mean that BOC always functions according to formal structures, which are part of the material phenomena of BOC. Figure 7.1 gives an overview. X and Z are correlated, but not causal. This means that when vertical communication does not perform optimally, horizontal communication also tends to underperform. However it does not mean that variable X directly causes Z. I would argue that the correlation between the two variables is due to cultural ideational phenomena. Both variable X and Z have a joint effect on Y.

#### Variable X: INTERNAL VERTICAL COMMUNICATION

Due to general common organizational issues (e.g.: lack of time, human mistakes, unavailability of relevant persons) and legitimate strategic reasons, but also because of relatively little centralized structure, Interface can operate as though it is a small company:

- Vertical communication can come too late
- Nobody knows the exact details of certain issues or it is unclear who has final responsibility
- Large-scale organizational changes are not very structurally guided such as invoice systems and software implementations. Instead one mostly needs to figure out oneself how new systems work and sometimes needs to instruct colleagues as well as find solutions for problems that emerged.

#### Variable Z: INTERNAL HORIZONTAL COMMUNICATION

- There is not sufficient information and knowledge exchange between various departments. Employees do not hear much about colleagues and other departments in terms of expertise, know-how and individual responsibilities, current projects and each other's network.
- Daily communication and project management tools are not always efficient, up to date or are not even provided yet (e.g.: globally Google Drive has just recently been installed, Excel sheets could not calculate themselves yet, just recently a well working project management tool was provided, significant email contact whereas nowadays there are several modern communication applications that work more efficiently)

#### Variable Y: CROSS-COLLABORATION BETWEEN DEPARTMENTS

Departments do work together, but there is a general tendency to focus on own tasks and to do's which leads to departments operating as small islands.

- Decision-making without taking into account the effects on other departments
- Frequently too late communication about departmental projects and made decisions



Figure 7.1.

Overview of interrelated issues: vertical and horizontal communication impacting cross-collaboration between departments.

Thus on the one hand, an organization can apparently be highly innovative and on the other hand it can still experience issues around internal vertical and horizontal communication (even in terms of rather basic daily communication tools), partly leading to a highly needed improvement of cross-departmental collaboration. Finally, top-level and middle management is not always effectively acting in terms of timing and consistency of decision-making, taking up actual action and open to criticism, even though generally speaking one's ideas are always welcomed and lines to direct supervisors are short.

#### *Global matters*

Daily practices and strategies of divisions have up to now always been rather autonomous. Yet there is increasing standardization and central guidance from the U.S. More standard procedures and uniform systems can increase efficiency of work processes, but can also foster mismatches or is in some cases simply impossible.

#### *Mission Zero within the organization: communication, individual and departmental contribution*

Mission Zero is mainly communicated through quarterly meetings, award notifications and Dr. Zero emails with the latest sustainability updates. Colleagues are also an important source of information on the latest innovation projects. Quantitative business results and results of the mission are shared during quarterly meetings, but exact data on where Interface is standing in its mission are not communicated.

Generally if individual employees have an idea for sustainability innovation they need to present good arguments and a strategic plan with an overview of expected costs and benefits. Depending on the scale and costs of the idea, consent is given either by one's direct supervisor or organizational members higher in the hierarchy. There is no explicit structure (except for LOOP and some other virtual platforms that tend to be active on and off) to facilitate local cross-departmental collaborations to exchange ideas, expertise and opportunities, that is to foster: innovation. This is partly due to the fact that the formal organizational structure is pretty traditionally separated into vertical departmental columns and that despite such silos the company has not deliberately implemented institutions such as regular 'meet and greet' sessions, performance structures (a certain percentage of work hours can be officially dedicated to one's ambassadorship) or lunch canteens that would facilitate mingling of employees from various departments.

Within daily work, every department expresses environmental awareness in terms of general office practices (e.g.: waste separation, less paper usage) and specific departmental practices (e.g.: travel looks for sustainable hotels and IT has a project called 'Green IT'). However within daily work, especially technical departments (e.g.: production, product innovation, technical maintenance and engineering) can have much more impact on the mission than office employees and as such not every department can equally contribute to physical-environmental sustainability objectives.

Finally, 10 to 15% of the 350 employees working in Scherpenzeel are ambassador and the level 1 training is obligatory within the company.

### 7.1.2 BOC as an ideational system

#### Generally shared values among organizational members

- There is a general sense of pride and self-esteem to work for the company, even though this varies per person and sometimes per department. Generally employees find Interface a beautiful company and the mission adds an extra dimension to their work.
- Making a contribution to the world as a business company also tends to give additional motivation.
- Personal autonomy is important and makes work fulfilling; employees feel that they are not limited and that they have sufficient freedom to do what they prefer and to work in a way that suits them best.
- (Local) ideas to improve the company's sustainability are always welcomed. There is thus a general openness to bottom-up ideas.
- Creativity and idiosyncratic individuals are valued, since this type of employees tends to bring in new perspectives and associations between ideas and people. Often these individuals also display entrepreneurial skills, which is equally valued.

Table 7.1. Actual rather than espoused, shared values and ideals in terms of the mission

Values or related ideals	Short description
<b>Environmental awareness</b>	Environmental awareness and the importance of living more sustainably are present across hierarchies and departments (even at home in employees' private lives) despite individual exceptions. This awareness has developed despite initial scepticism, because people have seen the successes in terms of positive financial and other business results.
<b>Societal contribution</b>	Doing something 'extra' for the world is not seen as 'idealistic', but is seen as positive and valuable.
<b>Openness and inclusivity</b>	Sense of openness to ask colleagues and despite material phenomena such as insufficient cross-departmental collaboration, there is a sense of 'doing work together'. Ego driven individuals only focused on their own career at least among employees working on an operational level and middle management level do not seem to be appreciated.
<b>Progressive</b>	It is generally seen as valuable that the company has ambition, is a frontrunner and is innovative.
<b>Inspiration and personal meaning/affinity</b>	The initial strategic management decision to work towards sustainability has been formulated by the executive board and new regulations and programs were indeed implemented. The ideal is to ensure that the sustainability vision is lived through on all organizational levels. However employees do not feel that they have literally been forced and are still not pushed to proactively engage. Inspiring and enthusiastic intrinsic commitment by educating what sustainability is, are more part of general ideals as well as the integration of environmental sustainability into one's personal life and work.
<b>Higher purpose of business</b>	Despite clear commercial interests, a maximization of profit is not the only factor that is taken into account. Other more social ideals which are business objectives at the same time, include environmental wellbeing, long term sustainable client relationships, sharing of knowledge and genuine collaboration and assistance of other organizations: thinking along with each other and supporting one another to truly transform the industrial sector for a more sustainable world.

#### (Implicit) norms of social behaviour within the organization

It must be acknowledged that one BOC as a coherent entity does not exist. Different departments in my case study indeed tend to have various 'climates'. Arguably the atmosphere at the marketing and design departments are focused on the latest trends, events and matters such as art, architecture, travel and design and tend to attract younger employees, whereas other departments are much more technically oriented and predominantly consist out of males. Nevertheless, this does not mean that there are no common features. It can indeed be argued that overall the main cognitive-emotional aspects of Interface's BOC are informal, open, friendly and helpful. These ideational phenomena clearly underlie the sociocultural phenomenon of informal dress. Implicit unwritten norms are a general willingness to assist each other, an open-door culture and a rather egalitarian connection to direct supervisors. Even though not everyone feels comfortable to do so, another norm is that in principle one can enter the European directors' offices without formal procedure. In addition another implicit norm is that it is common for employees to not only largely plan and determine their own work, but also to be rather self-reliant. Nobody dictates, instead it is more a norm of finding one's own solutions.

In addition, risk taking for sustainability innovation both as an organization and as individual employees is part of unwritten norms within the company. Hence even though an espoused value on the website is not 'risk taking,' among employees it seems evident that without reasonable risk taking as well as experimental products and innovation projects the company is not going to achieve its mission. With regards to individual employees, though there are certainly a number of employees prepared to do so, realizing a (local) project for sustainability

innovation not only requires a significant amount of time and personal effort besides main daily tasks, but also risk taking in terms of being accountable for the results. This certainly does not mean that rather personal and more local projects (i.e.: so not taken over by the GI team) are not allowed to fail, but when significant financial investment or organizational changes have already been made it is obviously important for the initiator that the project succeeds. Besides even though an entrepreneurial attitude is not part of official HR competences, traits that are required both in daily work processes as with regards to innovation, also seem to be implicit norms of entrepreneurship such as pursuing one's own ideas and 'nobody will tell you what to do, you have to decide and act with initiative', taking up responsibility for a project, figuring out how much it will cost, what and who is needed as well as finding together or on one's own required solutions. This also implies that the norm is that one is willing to lobby, to chase an idea and to network, thus display a significant form of individual pro-activeness.

### *Shared subjective perception in terms of cognitive and emotional processes*

#### Work

- The atmosphere at the company is generally experienced as dynamic with constant change and without much fear of change. At times processes are seen as (too) unstructured or not sufficiently streamlined.
- There is a general sense among office employees that they cannot contribute so much to Mission Zero in their daily work, the more because there tends to be a focus on physical-environmental sustainability innovations that are less easily realized at office departments.
- Generally high time/work pressure.

#### Employee acknowledgement and career development

- More small gestures of employee appreciation and employee acknowledgement would be appreciated. The organization predominantly tends to be focused on achieving innovation and sharing successes in terms of physical-environmental sustainability<sup>48</sup>, yet several employees feel that they are a little undervalued.
- On the one hand employees appreciate working for Interface due to the autonomy they have, the friendly environment among colleagues, the fact that it is a company that has a clear and genuine social purpose beyond mere profit and that books 'beautiful' successes and some also because they indeed feel that they have sufficient opportunities for learning and professional growth. Therefore most employees are simply content or in fact highly enthusiastic and driven, despite legitimate critical remarks on certain material phenomena (e.g.: insufficient horizontal communication). The ideational phenomena of being content, experiencing sufficient professional growth, autonomy and friendliness underlies the sociocultural phenomenon of a relatively large number of employees working for a long time at the company (some already their entire life). On the other hand, a number of employees feel uncertain if they are actually listened to and especially production employees tend to feel a little excluded or neglected in terms of 'we are just carrying out'. These are not merely complaints. Several respondents have shared examples and experiences. It is remarkable that employees who are less in decision-making or office positions (i.e.: production plant or technical support) feel that they are more below in the official hierarchy. This feeling is probably common in many other companies with production, office and management departments. However, this does not mean that there are no possibilities for a higher sense of inclusion.
- Mainly younger employees feel that they are missing opportunities for a career development plan, while employees who are working for a longer time at the company experience that they have learned significantly and could grow into different functions and tasks.

#### Leadership

Underneath employees' experience that they do not always feel heard in terms of structural issues (i.e.: constructive action, feedback on time or even lack of answer) not only lies an issue of hierarchical communication structures, but also the requirement for personal risk taking within a stronger force field. Invariably more implicit 'rules of the game' play a role underneath material phenomena such as lobbying processes. Such rules are personal accountability, sticking out and possibly countering other agenda's.

#### Perceived sustainability issues

- Most employees feel sufficiently informed, even though not everyone feels that they have the time to process all the information that comes by. Besides the exact quantitative impact and results of specific innovation projects and the status of current projects are not always clear to employees, neither it is known whether the company will achieve Mission Zero. However this can also be a matter of proactively gathering information oneself.

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<sup>48</sup> It must be acknowledged that ultimately my time was too limited to delve more deeply into experiences around career development and the organizational appreciation of employees.



- LOOP does not work effectively yet. It is perceived as being too chaotic for documentation; employees feel that they have not much time left to engage with LOOP, the purpose is not clear to everyone, some departments do not have sufficient access and the English language is troublesome for many employees working on the production side.
- There is a general perception around the inclusion of production employees. It is questionable whether they are and actually feel sufficiently included in terms of news and (global) innovation developments, which are always communicated in English and whether they have equal access to LOOP. This is important, because even though this does not necessarily have to be the case, after many years of working in the production plant or at any other department people may otherwise become less alert.
- Only one respondent explicitly mentioned the following issue. Even though this issue does not seem to be part of general employees' perceptions, it is important to acknowledge the following. Mostly in the beginning of the recruitment process a focus lies upon whether a person suits the company or not. Yet it is questionable what happens after the recruitment and the level 1 training and how well employees are facilitated after that. It seems that the company is not doing much more innovative than what is common within companies to keep their employees engaged (as mentioned for instance informal employee parties). Hence it is questionable how make full use of all the available human potential and capacities for sustainability innovation within the larger organization.

In addition as explained in section 7.1.1, socio-culturally speaking there is not only little structure and facilitation to foster more cross-departmental collaboration for innovation, but there is in fact relatively little cross-departmental collaboration for CSI. This is mainly related to the shared subjective experience of two ideational phenomena, namely that:

- ✓ Mainly office departments as a whole do not exactly know what their *role and purpose* exactly is or can be in contributing to the mission (i.e.: have similar impact as more technical departments).
- ✓ Another general perception is that mostly technical departments can have large-scale impact.

I would not necessarily argue that these two ideational phenomena obstruct cross-departmental collaboration for innovation, yet they certainly have a limiting effect. It can become a vicious circle: if office departments generally do not know what they can exactly contribute as a whole to sustainability innovation, then it is not only difficult to generate new ideas, but there is neither much point in spontaneously walk into the office of other departments as content wise there is not much to exchange in the first place. This lack of cross-fertilization in terms of content impacts the extent to which employees can collaboratively come up with ideas, which on its turn diminishes their understanding of what their role precisely is in terms of the mission leading to them perceiving that mostly technical departments have impact. Nevertheless as explained in section 7.1.1 'BOC as a sociocultural system', innovative projects can indeed originate at and are also facilitated by non-technical departments (e.g.: the KLM initiative and The Awarehouse). Even though these are often more service, organizational or people oriented, the fact that innovative projects also spark at other departments indicates that uncertainty regarding the role and purpose of office departments are interrelated with collective beliefs of what constitutes sustainability innovation. I will elaborate on this in the following part of 'collective beliefs and basic premises'.

#### *Collective beliefs and basic premises*

Collective beliefs are a form of assumptions that are not explicitly experienced by (the majority of) employees. Hence they do not belong to shared values and ideals. Instead beliefs *underlie* shared values and ideals. It must be emphasized that the most crucial and initial common basic premises and assumptions around sustainability in the middle 90s, have surely been undermined by the company's successful results. In this sense Interface has truly changed many existing beliefs around sustainability as being: impossible and unrealistic for an industrial company, a guru like vision, exaggerative, 'a vague concept', risky in terms of required financial investment, impact on customer sales and product quality and 'no shareholder is going to buy this'. Referring to the abovementioned explanations of shared values and ideals, it can certainly be stated that Interface has turned former beliefs up side down and has proven that quite the opposite is true and indeed possible.

In addition, it is not my intention to give an overview of the beliefs underlying the rather positive shared values and ideals from Table 7.1. 'Actual rather than espoused, shared values and ideals in terms of the mission.' Instead in my point of view it is more relevant to address beliefs that underlie sociocultural issues and challenges within the company that have been pointed out by various respondents, precisely because awareness around and a consequent change of such beliefs may engender sociocultural organizational phenomena that are better in terms of results or process effectiveness.

Schein argues that the sociocultural material phenomena of a BOC can be understood through understanding underlying beliefs that inform these phenomena (2010). Vice versa, this implies that beliefs can thus also be

retrieved from observing sociocultural material phenomena and linking them to more explicit values, norms and perceptions that have been given by respondents. Hence based on this I will argue the following:

Firstly ideational phenomena or rather the collective beliefs underlying how vertical communication ‘materially’ expresses itself within my case study (e.g.: large-scale organizational changes are not very structurally guided and employees generally need to find their solutions with one another when problems arise) are that the autonomy of business divisions, local departments as well as individual employees is important, local solutions, an enterprising attitude as well as self-reliance have originally always suited Interface more than centralized and step by step uniform implementation. Besides socio-culturally speaking internal horizontal communication partly tends to materialize itself in terms of rather basic daily communication and project management tools not being up to date, inefficient or not even available yet. It can be argued that underlying this material phenomenon is the ideational aspect of Interface’s organizational culture as being more disposed to or perceiving Mission Zero as more relevant (and as a consequence new product launches, technical and service innovation processes, and various other innovative projects and partnerships), rather than ensuring basic communication and daily collaborative tools to be structurally and uniformly provided throughout the organization.<sup>49</sup> It must be acknowledged that currently the U.S. is directing towards more centralized standardization. At the same time must equally be acknowledged that generally Interface seems to carry the basic premise that effort to realize its sustainability strategy is highly important, rather than investing into some of its basic daily operational tools, which in many cases have made streamlining work processes cumbersome and inefficient in terms of the time it takes to arrange issues effectively.

Moreover the overall attitude of ‘Let’s just do it!’ and ‘Find your own solutions’ is highly entrepreneurial and daring, but is also based upon an underlying assumption of it is possible to ‘just start and see where it goes and where we end up’. Along the way such assumption can foster unexpected opportunities and possibilities to arise. Yet equally unforeseen circumstances could emerge that could make the entire process ineffective and undermine real collaboration between departments that are mainly ‘doing their own thing’ instead of being geared to one another. The same assumption also leads to an organization that is not characterized by a project management culture, as one respondent remarked that preparation, steps, phases and clear appointments before starting a new project are frequently not well managed.

Secondly as mentioned before, employees have also expressed that in their point of view innovation mostly originates at technical departments. In terms of physical-environmental innovation processes this is factually true. Yet it needs to be stressed that collective underlying beliefs around what constitutes innovation are highly important. The basic organizational assumption seems to be that sustainability innovation is mainly compromised of creating novel (mostly product, manufacturing and service) processes and results related to the environment or *external* social issues (i.e.: supply chain management or volunteering). As the interview results indicate, the HR manager of Interface also tends to believe this. Yet it could be important for the company to adopt another belief, namely that sustainability innovation is also compromised of novel *internal* social processes and results. If this instead would become the collective basic premise it is much more likely that (office) employees would experience less that they cannot contribute to the sustainability mission. It instead becomes more likely that they would regard projects based on commonly experienced issues, such as a good idea to foster more internal cross-departmental knowledge exchange, collaboration and mutual coordination as part of sustainability innovation as well. Thus even though currently most contributing employees are predominantly occupied with innovative ideas to realize physical environmental sustainability, I would argue that changing premises and seeing projects around internal cross-departmental knowledge exchange and collaboration as part of sustainability innovation too, widens the perceived range of actions of (office) employees to contribute to the mission. Besides projects that would lead to an actual increase of internal knowledge exchange and collaboration, could indirectly positively contribute to the company’s physical-environmental sustainability objectives. Besides even though Anderson has explicitly pointed out the importance of engaging employees throughout all organizational levels through sharing enthusiasm and inspiration, educating and by integrating the meaning of environmental sustainability into one’s personal worldview, lifestyle and at work, this is not necessarily the same as a long-term vision on human sustainability and human development within the company. Employee engagement and inspiration is certainly part of human development, but in section 7.1.5 ‘Interface as a learning organization, human sustainability and personal leadership’ I will argue that human sustainability contains more than only employee engagement.

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<sup>49</sup> As a side note and as part of official document analysis: a similar issue can be observed when thoroughly looking at Interface’s global website and all the other websites per country. There is definitely a similar ‘feel’ to the various websites, but a structural organization seems to lack. Independent websites still exist from innovation projects that are no longer active, webpages on specific topics can be found with a searching engine, but are hardly found through the global website itself and there tends to be a significant amount of information on products, services, sustainability themes, current innovative projects and inspiration that is not very clearly arranged.

Finally, collective basic premises can be highly tricky. The alumnus of Interface has pointed out that in her viewpoint the company has a ‘culture of doing it right’ with a focus on its successes and awards, but with less ability to address its structural weaknesses and sharing of vulnerable issues among employees. It is likely that the basic premise of autonomy in terms of ‘I can do whatever I want as long as I achieve my targets and results and thereby contribute to the organization’ has become engrained into the company’s culture. However another premise of a high level of autonomy, but also a regular critical questioning, feedback and coaching on one’s work processes from supervisors, rather than only showing one’s results could unleash untapped employee potential and improve shared organizational results. Moreover it is likely that regardless of age, humans over time tend to become used to certain returning organizational issues and start to accept them as they find ways to deal with these especially when they are overall more inclined to feel content about their (individual) work, rather than a continuous critical sharpness and questioning until issues are solved. Unfortunately due to time limits I have not been able to research these arguments more thoroughly and whether they can actually be affirmed by the answers that respondents gave. Nevertheless it is indeed important to stress that an unconscious collective form of habituation and acceptance in combination with instead on a conscious level being constantly confronted with successes and achievements and little leadership facilitation of collectively looking at structural problems, can certainly lead to an organizational blind spot.

### 7.1.3 BOC as a symbolic discourse and CAS

#### *A symbolic discourse: a common story and worldview*

It is questionable which sociocultural and ideational phenomena that are described in respectively section 7.1.1 and 7.1.2 are recurrent and have a shared cognitive-emotional impact and thereby enable the emergence of a common symbolic story. As explained in my theoretical framework, such a story carries shared meaning and creates organizational cultural order between, but also despite diverse interpretations and various subjective individual experiences.

However it must firstly be acknowledged that human systems are highly complex. In my theoretical framework I already mentioned that CAS consist of a large number of heterogeneous interacting agents marked by social differentiation. Indeed educational levels, personal character traits, professional function and experiences, age, communicative skills and possible many other interrelated factors create interpretations and responses that are never exactly the same. Humans are not robots and as a consequence, obviously I have not literally heard one exact similar response between respondents except for ‘design, sustainability and innovation’ as these are the three espoused cornerstones of the company. Besides within the organization itself there is space for employees’ own interpretation (i.e.: what does the mission mean to you and for your specific work environment). This means that instead of one uniform approach, an appeal is made onto employees’ personal experience. Out of chapter 5 it also appears that sense making is diverse. Some employees are part of a core group and have internalized the vision and have significantly to tell about their personal experiences, share their know-how and are highly enthusiastic. Above all, sales personnel generally know more in depth details about the content of the mission. Others who are part of a more (inactive) supportive group value the mission, but do not elaborate much more than by referring to zero impact. Thus it would seem as though there are hardly symbolic relationships between all these interpretations.

Nevertheless CAS theory also argues that patterns (such as *recurrent* sociocultural and ideational phenomena) emerge between interactive agents, which create meaning and coherence. This is basically an argument for the emergence of a shared symbolic discourse, despite the existence of diverse heterogeneous agents, various experiences and subjective interpretations that necessarily change and develop over time. Meaning and coherence come into existence partly due to the fact that complex human made systems such as BOC are deliberate as humans can impose cognitive and behavioural order through prescription, while patterns also tend to self-organize and change ‘spontaneously’. ‘Patterns and prescription’ are both apparent in my case study. Table 7.2 depicts the symbolic discourse of my case study based upon the sociocultural and ideational phenomena that I explained in the former two sections. These specific recurrent phenomena have created patterns of meaning. Prescriptive matters such as ‘general office practices’ are part of these phenomena, which does not mean that all sociocultural and ideational phenomena are prescriptions.

Not all respondents have explicitly stated the following, but there is indeed a shared symbolic story that fosters organizational order and a ‘group feeling’. This table illustrates what the common story and shared interpretation is of Interface as a company, despite the fact that organizational culture is essentially a CAS with a significant amount of heterogeneity on all kinds of levels:

<i>Relevant sociocultural phenomena (section 7.1.1)</i>	<b>Symbolic discourse that results out of sociocultural phenomena (shared sense making)</b>
A large number of innovations, awards, product launches, events and news, large-scale system changes.	Interface is innovative, a frontrunner, never stands still, is dynamic and successful. Interface dares to do it differently
Numerous innovations that have increased environmental sustainability of the company and other related initiatives and certifications + measurable results and financial benefits + general office practices + office building designed with environmental awareness	Interface is genuinely working for sustainability. The company is honest and in this sense has integrity. It is not a form of green washing. Interface is going in the right direction. Sustainability does not cost money, but ultimately saves costs and generates financial benefits. It is reasonable to invest in sustainability.
Daily work and tasks amongst colleagues	'We are working for the mission together, but at the same time the majority of employees is an inactive supporter and mostly doing their daily tasks without further engagement. It is also a company wherein employees have large autonomy.
Lack of sufficient cross-collaboration and departments being geared to one another, internal communication issues and streamlining projects and processes.	Interface can be inert, cumbersome and unstructured nor is the company very innovative in terms of basic communication matters
<i>Relevant ideational phenomena (section 7.1.2)</i>	<b>Symbolic discourse that results out of ideational phenomena (shared sense making)</b>
Generally shared values, shared values and ideals & (implicit) norms: Personal fulfilment at work and pride + appreciation and understanding sustainability and social purpose + implicit norms of friendliness and assisting one another	Interface is a beautiful company that contributes something valuable to the world. Interface is open and friendly as though it is a family company It is possible to operate more sustainably and be profitable at the same time Interface needs to share knowledge with others and inspire others
Generally shared value of sufficient freedom to work according to one's preferences and self-determination	Again, it is a company wherein employees have large autonomy.

Table 7.2. The symbolic discourse of Interface

Table 7.2 actually indicates that the symbolic discourse of Interface is largely positive. Yet this is not because there are no issues or needs for improvement at all. The fact that the symbolic discourse is relatively positive is due to the following. The table also shows that the symbolic story of Interface is mostly a result of sociocultural phenomena within the company and of the ideational phenomenon of 'shared values and ideals' and '(implicit) norms'. The other ideational phenomena of 'subjective perceptions around issues' such as 'work' as well as 'perceived sustainability issues' and 'collective beliefs and basic premises' seem to be less part of an organizational symbolic story. This is logical, because sociocultural phenomena are material and therefore immediately visible to everyone and as such are likely to be a binding factor between different individuals. A symbolic discourse is more likely to emerge based upon recurrent visible material phenomena and around explicitly repeated shared values and ideals, rather than upon ideational issues that are not immediately visible and beliefs that are too implicit and often unconscious to become part of an explicit symbolic discourse.

Therefore other sociocultural phenomena from section 7.1.1, such as leadership, feedback and criticism are not part of the main symbolic discourse. Apparently Interface is neither characterized by such an innovative and outstandingly remarkable form of leadership nor by such a bad form of organizational leadership, that it has become part of a shared symbolic discourse among employees. It must be stressed that Ray Anderson as Interface's former organizational leader is part of the almost 'heroic' symbolic story outside of Interface in the external world. However at least in my case study this does not seem to be the case internally among the respondents whom I have interviewed. This is plausible, because after Anderson's passing away Interface as an organization has continued with a symbolic discourse with ideals around innovation and being leading, sustainability and societal contribution. In this regard, it was not Anderson as such (i.e.: as a person) who has connected 3500 individual employees and who because of him still feel that they are part of a common story, even though he must have played a pivotal role in various ways. Instead without the sociocultural and ideational phenomena in table 7.2 such a discourse would not even have emerged in the first place. Neither other sociocultural phenomena such as the fact that some departments have more direct impact on the mission than others and the ambassadors program are part of a symbolic discourse. Though these are returning issues within the organization, employees do not directly and collectively associate the company with these two issues. So they are not symbols that signature the core of the company or create meaning necessary for a group.

Similarly in terms of other ideational phenomena, issues such as time/work pressure, career development, leadership and being listened to, employee acknowledgement and perceived sustainability issues are neither part of a symbolic story, even though these are recurrent issues and certainly have a cognitive-emotional impact. Even though more than one employee experiences these issues the impact is not *shared* to the extent that it becomes part of an explicit characteristic discourse. These issues are thus not symbolic for Interface as a company. Such issues only surface once one delves deeper, questions more and digs under the immediate surface story, but are certainly not immediately mentioned when respondents are asked to characterize Interface. However if these issues would have been really severe and creating an obvious 'hick-up' within the organization, they would have been part of a symbolic discourse that is more critical and negative. This is indeed the case with the sociocultural phenomena of: lack of sufficient cross-departmental collaboration, internal communication issues and streamlining processes.

Nevertheless with regards to other issues that are present, but which are not part of the symbolic discourse; those are a reminder for the critical comment of the alumnus of Interface. Her comment and my analysis basically indicate that if an organization really aims to learn and develop itself it should not solely strengthen and reaffirm its dominant symbolic discourse, but should invest deliberately in time for critical reflection and collectively discussing and acting upon recurrent issues that demand a solution. This is precisely because other more critical, subtle sociocultural and ideational issues do not tend to become part of a symbolic story, because they are underlying the so-called tip of the iceberg.

#### 7.1.4 The institutional elements of: stakeholder engagement as well as operational structure and processes

In addition, I would like to shortly address Herrera Baltazar's 'The institutional innovation model' (2015). In contrast to the author's account, I would argue that both 'stakeholder engagement' and 'operations' are essentially part of 'people' and above all: 'culture'. The author argues that 'people and culture' are compromised of 'corporate values, employee attitudes and their values, and a culture of experimentation and risk taking' (2015). However as section 7.1.1, 7.1.2 and 7.1.3 indicate, in my viewpoint 'people and culture' consist of many more aspects or rather, phenomena. Stakeholder engagement and operational structure and processes are part of sociocultural, ideational phenomena or culture as a symbolic discourse. Therefore I will address these two institutional elements in this paragraph 7.1, which is mostly focused on BOC and not necessarily on innovation.

The first institutional element for embedding CSI is 'stakeholder engagement' (Herrera Baltazar, 2015). As already explained this institutional element is undoubtedly present at Interface and is basically a sociocultural phenomenon and is also part of Interface's dominant symbolic discourse.

The second institutional element is operational structure and processes. I will shortly summarize operations related to innovation (processes) and that are institutionalized in my case study. These operations are essentially part of BOC's sociocultural phenomena, because they are material and rather 'visible'. 1) Originally divisions and national locations have been rather autonomous, despite increasing centralization procedures and regulations coming from the U.S. head office. 2) Since approximately 2 years there is a Global Innovation team based in the U.K. 3) There is no operational structure or procedure that facilitates regular brainstorm sessions and open meetings (neither internationally nor locally) for technical experts to come together nor for other operational employees. However for the latter group the Ambassadors' network is a structure that could indeed facilitate such (local) sessions. 4) There are several virtual platforms to collect and exchange ideas such as LOOP and Inside Farm. 5) As mentioned, there are no physical workspaces such as coffee rooms or open 'living' spaces to sit, interact and potentially cross-fertilize expertise, current projects and ideas. Neither the design of the lunch canteen seems to facilitate this.

#### 7.1.5 Three models of BOC phenomena

The following three models 7.1, 7.2 and 7.3 depict the various interrelations between sociocultural phenomena and ideational phenomena with a separate category of 'beliefs and premises' as part of the latter. The three models basically depict what I have written and argued in the former two sections 7.1.1 and 7.1.2. Yet I would like to stress again that frequently ideational phenomena lead to certain sociocultural phenomena, but in some cases it is also the latter that leads to the former. From my textual analysis and from model 7.1, it also becomes clear that the symbolic discourse is mostly a result of actual shared values and ideals among organizational members.

The models are important, because they give an immediate overview of what phenomena influence one another. I believe it extends beyond the scale of this rather exploratory research to specifically separate independent variables from dependent and whether relationships are correlative, causal, spurious, interactive or moderating, because this would demand more research. However, an arrow indicates that the one leads to the other. Due to the fact that it is a qualitative research, it is not possible to determine the exact quantitative impact of phenomena on each other. Yet in certain cases only I have placed a plus or minus next to the arrow to

be more explicit about the relationship between phenomena. I have *not* done this with relationships wherein a plus or a minus seemed self-evident to me.

The three models should actually be one combined into one coherent model that illustrates how BOC impacts corporate innovation for sustainability in my case study. Due to layout limits this was not possible. Hence I made models based upon the 'final phenomenon' (either sociocultural or ideational) that is ultimately explained in the model through its interrelations *with* and also through interrelations *between* other phenomena. I have underscored these four final phenomena and they are reproduced again in the third model. I have also numbered each phenomenon. This does not signify range of importance, I have only used numbers for clarity of use and reference.

SC = Sociocultural phenomenon

BP = Beliefs and Premises (which are actually part of I)


I = Ideational phenomenon


[SV] = Generally shared values among organizational members (also part of I)


[ASV + IDL] = Actual shared values and ideals among organizational members (idem)

[N] = Implicit and explicit norms (idem)

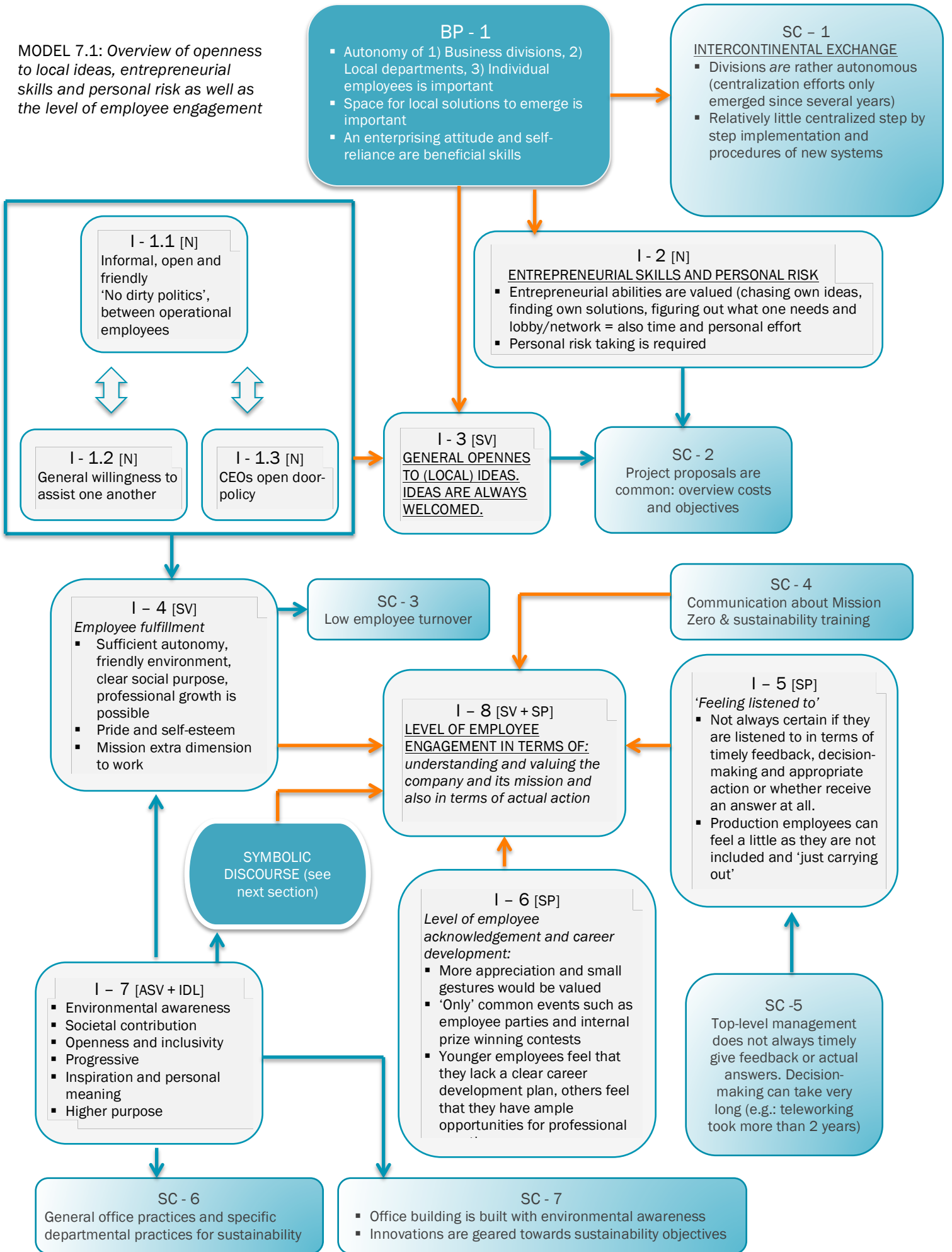
[SP] = Subjective perceptions (idem)

 = One phenomenon leads to the other

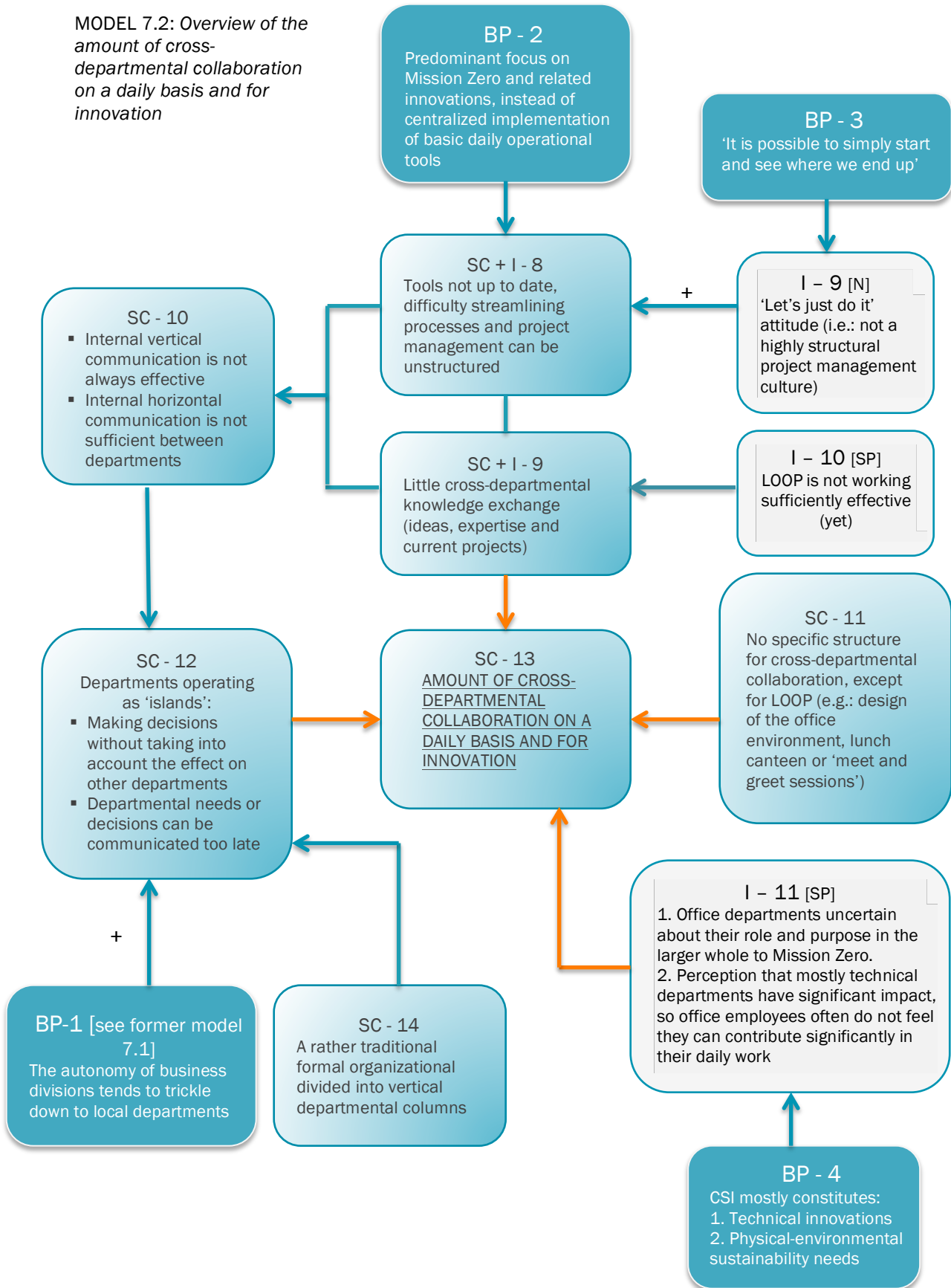
 = Points towards the final phenomenon

 = not only one leads to the other, but an interdependent relationship. This for instance means that the higher a is, the higher b becomes and vice versa.

MODEL 7.1: Overview of openness to local ideas, entrepreneurial skills and personal risk as well as the level of employee engagement

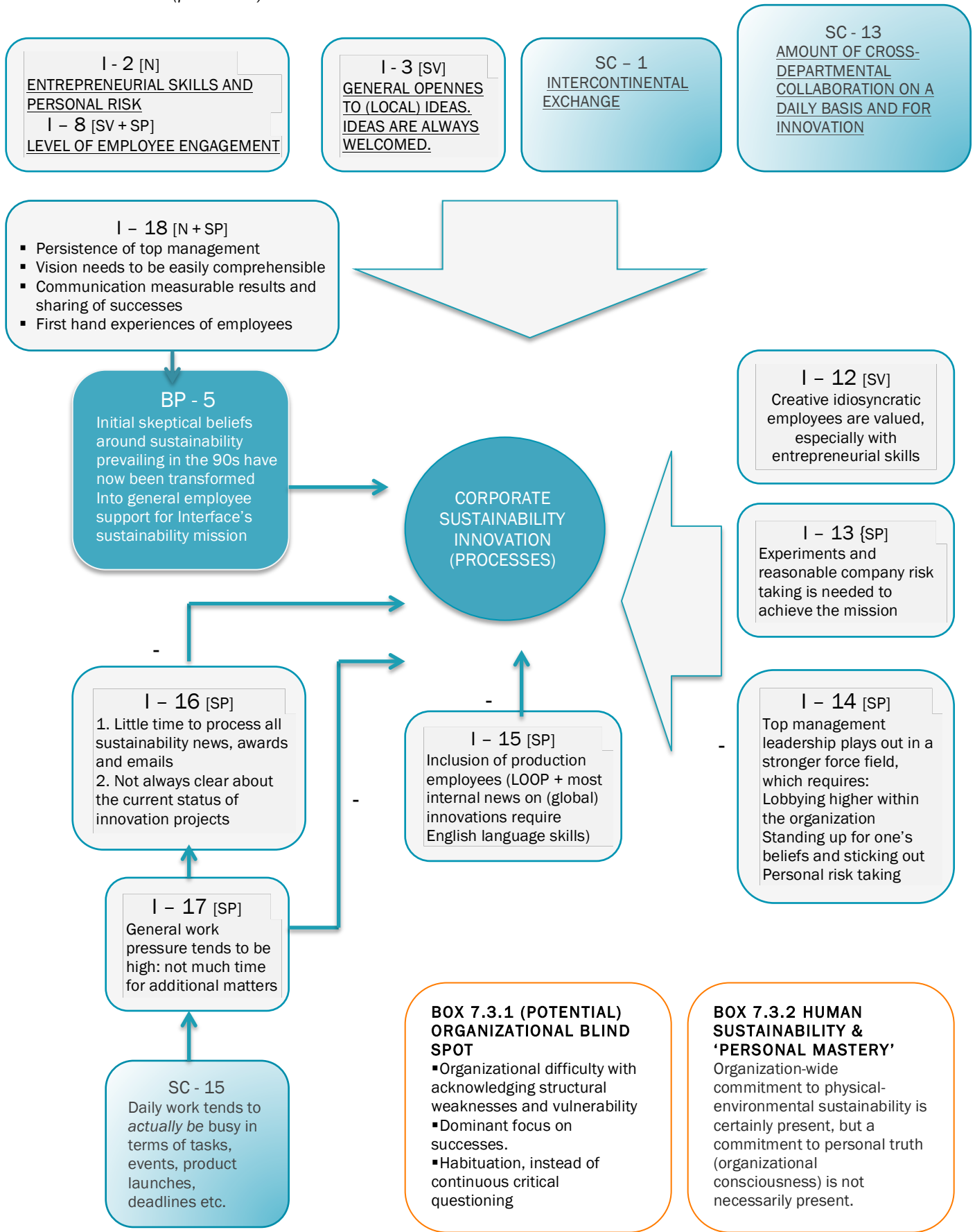


MODEL 7.2: Overview of the amount of cross-departmental collaboration on a daily basis and for innovation





MODEL 7.3: Overview of how BOC influences corporate sustainability innovation (processes)



I will refer to these models later on. However, it is already important to stress that model 7.1 shows that the level of employee engagement in terms of understanding and valuing the company and its mission is impacted by many other BOC phenomena such as the symbolic discourse, 'feeling listened to' (I - 5), employee fulfilment (I - 4) and the amount of communication about Mission Zero (SC - 4).

Model 7.2 shows how the amount of cross-departmental collaboration on a daily basis and for innovation are basically both dependent on the many interrelated BOC phenomena such as material issues (e.g.: SC - 10 and SC - 11), norms and subjective perceptions (e.g.: I - 9) as well as more hidden beliefs (BP - 2).

Most importantly though, the models undoubtedly illustrate how much BOC (as either a sociocultural, ideational or symbolic system) is actually related to CSI (processes). Model 7.3 clearly shows this. For instance ‘transformed initial sceptical beliefs (BP – 5), a generally high work pressure and lack of time (I – 16) and the fact that creative, idiosyncratic individuals are appreciated and welcomed in the company (I – 11) impact CSI processes and how these function. Besides it must also be acknowledged that even though I deliberately decided to not incorporate this into the model due to layout limitations, I – 14 and I – 15 are both also of influence on the level of employee engagement (I – 8).

#### 7.1.5 Interface as a learning organization, human sustainability and personal leadership

Furthermore as specified in § 2.3 ‘Theoretical framework of analysis: the multi-level cultural systems framework’, I will use the concept of Senge’s learning organization to gain an even more thorough understanding of the BOC that constitutes my case study as well as to touch upon the issue of ‘human sustainability’ (2006). Table 7.3 depicts the ratings for each of the features of the learning organization. I have based these ratings upon my BOC overview, the analysis and the arguments given so far.

<i>Features (i.e.: normative principles</i>	<b>Shared vision and interpersonal connection</b>	<b>Personal fulfilment (PF) and leadership<sup>50</sup> (PL)</b>	<b>Inquiry into mental models<sup>51</sup></b>	<b>Team learning and reflection<sup>52</sup></b>
<i>Rating of the case study of Interface</i>	+++	PF: ++ PL: --	+/-	--

Table 7.3. Interface ratings as a learning organization

+++ = Very much

++ = Much

+ = Average

+/- = Little

- = Not much

-- = Not much at all

The ratings of the table indicate that in terms of ‘shared vision and interpersonal connection’ as well as in terms of ‘personal fulfilment’, Interface scores high. This is amongst others due to the fact that as explained, there is genuine commitment instead of compliance to sustainability, employees feel connected to each other in the sense that there is social and friendly atmosphere wherein assistance is common and as model 7.1 shows I – 4: personal employee fulfilment is high amongst others due to a sense of pride, self-esteem to work for a company like Interface and because of a relatively high level of autonomy.

- ✓ However regarding ‘personal leadership’, the practices that Senge formulated are not much at all present within the company. Even though employees certainly have the chance to professionally and personally learn and develop themselves as well as that it is seen as important to question what ‘sustainability’ means for one’s personal life and work (i.e.: inspiration and personal meaning/affinity) there are no regular practices to develop personal leadership among operational employees.
- ✓ Neither is there much ‘inquiry into mental models’, except within the executive board according to a respondent from HR.
- ✓ Concerning ‘team learning and reflection’ as model 7.2 shows, cross-departmental collaboration and thus also between teams from various departments could improve significantly as well as interrelated phenomena (e.g.: basic communication tools are not always up to date or inefficient) that lead to this

<sup>50</sup> It is questionable what personal leadership precisely entails as the HR manager of Interface emphasized. Despite the fact that this indeed difficult to measure, combining insights from the alumnus of Interface with Senge’s work it can be argued that personal leadership in terms of having an intrinsic motivation as well as awareness around a larger purpose, are generally present among Interface’s employees. Yet other personal skills such as 1) the patience and continuous drive and energy, 2) commitment to truth and honesty and to increase the accuracy of our view on the world, 3) to regularly clarify what is important to us as well as 4) the professional skills to change certain issues or chase and realize an idea within the organization could be trained and developed more.

<sup>51</sup> From my theoretical framework: practice to understand internal assumptions about how we understand the world and bring these to the surface. Examine hidden beliefs to enable: 1) learningful dialogue and 2) organizational learning (e.g.: the latter happens when an executive team reconceives their mental model around ‘the market’ or ‘their competitors’) (Senge, 2006).

<sup>52</sup> From my theoretical framework: a) Understanding and acting upon complementary qualities, while having a common purpose. For this an organization needs to have institutionalized structures that can coordinate collaboration. b) Reflecting and thinking together (i.e.: tap potential from diverse minds) through dialogue rather than discussion. Dialogue means that there is a collective inquiry or evaluation into issues with a focus on attentive listening, suspending one’s own views and uncovering assumptions. Discussion means to defend one’s own views in search of the best perspective. With this communication method we run the risk of becoming ‘defensive’. Dialogue requires continuous practice, even though such practices are often lacking within business organizations (Senge, 2006).

rather low amount of cross-departmental collaboration. Dialogue within the organization as Senge envisioned it, certainly does not occur.

Regarding the lack of personal leadership, inquiry into mental models as well as dialogue, this overlaps with the critical insights of the alumnus of Interface. Several insights that she shared on top management around the ambassadorship program and the fact that *'employees do not sufficiently chase certain issues they want to change or ideas they have'* all refer to a need for more personal leadership development. Moreover top leadership may be less eager to lobby higher within the organization, not only because it will increase work pressure beyond their primary targets, but also because it may not be sufficiently 'safe' to stand up and be accountable for a certain belief that may counter other agenda's. I cannot extrapolate this specific insight on leadership around the ambassadors' program to top management in general within my case study. Nonetheless this specific insight still implies how important 'inquiry into mental models' is. Ideally this is because structural practice of collective inquiry wherein dialogue stands central (i.e.: uncovering internal assumptions, hidden beliefs as well as personal interests through genuine dialogue), especially within top management can create honesty, safety and diminish 'dirty politics'. This can on its turn increase engaged leadership higher within the organization and as Senge stresses, a restoration of ourselves in relation to others and the larger systemic whole (i.e.: society and the environment) (2006). Yet it must be acknowledged that this is ideally the case, but that in reality such practice is likely to be extraordinarily difficult to realize, as it would require a fundamental transformation of management culture within a company. 'Inquiry into mental models' and 'dialogue' can be equally important for operational employees to counter the 'organizational blind spot' that is summarized in model 7.3 (box 7.3.1) and increase learning potential (e.g.: new working methods, improving structural issues). Whether this is actually the case or not in my particular case study is ultimately less important than the fact that this is a potential pitfall for any company. This implies that there is often little space for 'being vulnerable' within corporate environments.

Finally I would like to stress that model 7.3 also contains another box 7.3.2: Human sustainability. As explained in my theoretical framework, Senge has also formulated a vision on 'personal mastery', which I would call a form of human sustainability. It can be argued that there is certainly a genuine commitment within the organization to mostly physical-environmental sustainability. This has become apparent from the various quotes by respondents amongst others on Interface's actual innovations and strongly reduced environmental impact, how they perceive the commitment of the executive board and the fact that even after Anderson's passing away, the company remained determined to follow the same path towards sustainability. There is also certainly a sense of common purpose and connection to others and the environment as my BOC analysis and the 'actual shared values and ideals', 'employee fulfilment', 'friendly and helpful relations among employees' and the 'symbolic discourse' in model 7.1 indicate. There does not seem to be too much 'dirty politics and competition' at least among operational employees. Nevertheless, a commitment to personal truth as Senge envisioned it (i.e.: human sustainability),<sup>53</sup> and the drive as well as patience to act upon gaps between one's vision and current conditions could be fostered more. Regarding the latter this again relates to the critical insights of the alumnus of Interface around the need for more personal leadership development. Regarding the former idea of a commitment to personal truth, which in my viewpoint is ultimately what constitutes human sustainability; it is of course questionable to what extent such a high level of 'organizational consciousness' is needed among employees. However I would argue that this is above all very important for top-level management such as directors and CEOs not only for an organization to function effectively, but also in order to foster a larger sense of societal and environmental purpose beyond the ego self. However even though it is very unlikely that no power relations exist at all, more ego-driven agenda's or that 'commitment to personal truth' is a common passion and practice among Interface's top leaders, it must be equally be acknowledged that Interface is indeed a company that was not only able to convince its shareholders, but which also integrated a genuine commitment to sustainability into its global and various continental executive boards despite individual members coming and going.

## § 7.2 THE LEVEL OF INTEGRATION OF THE FORMAL VISION AND MISSION INTO INTERFACE'S BOC & RATINGS ON A CULTURE OF INNOVATION

So far I have given an elaborate analysis on the BOC (as a sociocultural, ideational and symbolic phenomenon) that constitutes Interface and how cultural phenomena interrelate and impact one another. I have also used the concept of CAS, the institutional elements of 'stakeholder engagement' and 'operational structure and processes, the learning organization to deepen my understanding of Interface's BOC. In this paragraph I will use the table from Auernhammer and Hall and Dooley, which is depicted in chapter 2, § 2.4 'Theoretical framework of analysis: six

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<sup>53</sup> Based upon my theoretical framework this means: the honest truth that underlies our actions and who we actually are in the world when we become aware and gain reflective insight into our assumptions, flawed judgements, limiting beliefs and ego interests (Senge, 2006).

components of innovation, the institutional innovation model and related tables'. It must be stressed that this table basically formulates several factors that according to Auernhammer and Hall, foster an organizational environment or culture of creative thinking and innovation (2014). As mentioned in my theoretical framework, I have added features of innovation strategies to the table based upon Dooley's insights on CAS (1997). For a precise description of these features I would refer to § 2.4. Next to that box 7.1 gives a summarized overview of the espoused vision and mission of Interface as explained in chapter 3.

**BOX 7.1. | SUMMARY OF INTERFACE'S ESPOUSED VISION AND MISSION BASED ON CHAPTER 3**

Interface's formal *vision* is to show the entire industrial world what sustainability means in terms of people, process, product, place and profits and to have a restorative contribution (i.e.: to give back more than what is taken from the environment and thus have a positive impact) through the power of influence (i.e.: leading by example and having impact outside of Interface through a) inspiring and sharing knowledge with others such as suppliers and external parties such as schools, communities and other organizations which are not directly part of their supply chain\*, b) collaborating with others and c) influencing and ultimately enforcing competitors to change sustainably and thereby to transform the entire industry).

\* 'The entire planet is our community and stakeholder' (Anderson, 2009).

Interface's *mission* is to guarantee respect and dignity for the people that are in various ways related to the company, to foster constant learning and human development, to mostly focus on sustainability innovation of product and processes through the usage of industrial ecology and to leave the world a better place by honouring the locations of their business activities in terms of environmental restoration.

Mission Zero is the goal to achieve zero negative environmental impact within all business operations in 2020, and ultimately to be restorative. Mission Zero is basically the concretization of the vision and mission. It is an action plan and hence it is mostly the *means* to achieve the vision and mission. Progress towards the ultimate objective of this action plan is measured through eco- and sociometrics. Also within this action plan, the FSSD framework and the seven fronts have been essential.

Other related aspects of the vision and mission (as explicitly stated by Anderson or other prominent organizational members in books, videos and on the website and from the 'Beyond 2020' interviews) are:

1. Business exists for a nobler and higher purpose than mere profit.
2. Employee engagement for a shared vision and in order to take up initiatives and contribute to the mission through many large and small steps at local departments
3. The importance of fostering understanding around sustainability and its impact among employees through relating sustainability to employees' personal life and work, in order to become a truly green company.
4. Dedication to developing employees' learning, skills and development.
5. Relatively little uniform centralized implementation of sustainability measures, but a focus on local know-how and solutions.
6. Ambition and boldness: aiming for breakthrough projects, surprising the world and achieving what was initially thought to be impossible.

On the basis of Auernhammer and Hall, Dooley and box 7.1. I have made several tables with features that on the one hand are based upon the former and on the other hand include content from box 7.1. I will give these features a rating in order to determine to what extent Interface's espoused vision and mission are actually integrated, that is 'expressed' within their BOC. The rating is based upon the former § 7.1 wherein I as mentioned, have given an elaborate BOC analysis. The rating illustrates two issues. Firstly, it indicates to what extent the espoused vision and mission of Interface are integrated into their BOC. Secondly, the rating also indicates how the BOC of Interface influences their innovation (processes) for sustainability. This will mostly become clear in the next § 7.3, section 7.3.2 'The relationship between Interface's BOC and innovation processes for sustainability.'

The scale that I use is as following:

- +++ = Very much
- ++ = Much
- + = Average
- +/- = Little
- = Not much
- = Not much at all

Key category a)	Strategy: Vision and leadership			
Specific aspects	Shared vision and representation of meaning (actual values and ideals + internalized symbolic	Role modelling of leaders and persistence towards realizing organizational	Keep on challenging and engaging employees to generate new ideas and nurture	[Box 7.1 EVM] <sup>54</sup> Common awareness around a) Mission Zero, b) eco- and sociometrics

<sup>54</sup> This means that the specific aspect originates from box 7.1: Espoused Vision and Mission [EVM].

	discourse)	objectives	intrinsically motivated employees	and c) seven fronts
Rating based upon the content of paragraph 7.1.	+++	++	+/-	a) +++ b) + c) -

Key category a)	Strategy: Vision and leadership				
Specific aspects	[Box 7.1 EVM] Consideration in terms of a) people (respect/dignity), b) process and product (industrial ecology), c) place (honour locations of business activities through environmental restoration) and d) profits	[Box 7.1 EVM] Level of restorative contribution and positive impact	[Box 7.1 EVM] Level of power of influence (sharing knowledge, inspiring, collaborating, influencing others in the industry)	[Box 7.1 EVM] Level of visionary ambition and boldness	[Box 7.1 EVM] Level of doing business beyond mere profit
Rating based upon the content of paragraph 7.1.	a) + to ++ b) +++ c) ++ d) ++	+/- to +	++	+++	++

Key category b)	Organizational behaviour in relation to climate/atmosphere and employees					
Specific aspects	Open non-judgemental communication, open-door policy, face-to-face conversations, positive atmosphere	Possibility feedback throughout all levels within the organization	Employee performance: a) Autonomy b) Overall intrinsically motivated to think along c) Balance between time and work to reflect	Innovation willingness: mistakes tolerated, risk taking, open to change and experiment.	[Box 7.1 EVM] Employee development: learning and skills	[Box 7.1 EVM] Employee engagement with a) support for shared vision and b) proactively contributing with initiatives and projects c) general office and departmental practices d) Understanding of sustainability in terms of d.1) personal meaning and life, d.2) one's professional work.
Rating based upon the content of paragraph 7.1.	+++	+	a) +++ b) ++ c) --	+++	+ to +/-	a) +++ b) + c) +++ d.1) ++ d.2) Technical: +++ Non-technical: +/-

Key category c)	Internal communication: Information and knowledge sharing	
Specific aspects	Research and data collection, sharing knowledge, optimal information technologies across functions teams and hierarchies (clear where knowledge documentation can be found)	Exchange of expert knowledge, know-how and skills for work, learning-by-doing, experience of problems and opportunities
Rating based upon the content of paragraph 7.1.	--	Technical departments: + Non-technical departments: --

Key categories d), e) and f)	Support mechanisms: Organizational structure, Physical workspace, Resources and Knowledge generation as well as creativity tools				
Specific aspects	Formal organizational structure and physical spaces to interact and cross-fertilize ideas	Sufficient time/free space and project management tools	Financial resources	Assistance	Institutionalized structures (e.g.: regular brainstorm sessions, performance structure, support to step out regular routine/habit)
Rating based upon the content of paragraph 7.1.	--	--	++	++ (One can always ask for assistance) - (One needs to be self-reliant and individually proactive)	--

Key category g)	Features of CAS				
Specific	Fostering of internal	Institutionalization of rapid feedback	Diversity of skills as well	Only a few explicit behavioural	Local decentralization of daily operations

aspects	organizational connections & external connections	loops (reflection, evaluation)	as expertise and specialization	boundaries related to professional task and work	throughout organization to increase learning potential, little uniform centralized implementation and focus local know-how
Rating based upon the content of paragraph 7.1.	Internal: +/- External: + +	-	+ +	+ +	+ + +

### 7.2.1 Extent to which espoused vision and mission are integrated into Interface's BOC

On the basis of the above depicted tables it can be argued that the espoused vision and mission of Interface are to a very large degree integrated into the company's BOC. On almost all aspects of [Box 7.1 EVM] there are relatively high scores. However there are also a number of aspects that score less high. These are common awareness around the seven fronts and especially employee engagement at non-technical departments (i.e.: what their role and purpose can be within their daily professional work). In terms of the seven fronts, this does not seem to pose major problems for the level of corporate sustainability innovation. Even though few employees know the exact content of the seven fronts, all of Interface's innovations revolve around these fronts. An aspect that certainly can improve with regards to integrating the espoused vision and mission more into the BOC is the level of restorative contribution of the company. So far Interface has mostly focused on achieving Mission Zero (i.e.: drastically reducing its environmental impact to achieve zero impact). This is also logical in the sense that a positive restorative impact is basically per definition infeasible to obtain if there still is significant negative (environmental) impact. It must also be acknowledged that a restorative contribution is certainly not an undemanding objective. Yet from the next § 7.4 'Corporate sustainability innovation, CSV and international development issues' it will become clear that the company is on its way to increase its restorative impact. Finally the espoused vision and mission are less well integrated in terms of employee development and learning in general, especially when one compares this to the features of the learning organization and human sustainability.

Most importantly and remarkably is the fact that the espoused vision and mission are rather well integrated into Interface's actual BOC. Yet this does not necessarily mean that Interface's BOC is without challenges or needs for improvement (see tables and ratings). This implies that apparently an espoused vision and mission can be rather well integrated into a BOC, but other organizational cultural aspects may still need improvement. This is also logical in the sense that regardless how visionary and even practically useful the content of an espoused business vision and mission may be, it does not mean that this will always be practically realized in actuality within an organization; and even if it is (which is largely the case with Interface), it does not mean that there are no other organizational cultural aspects that are not included or overlooked by the vision and mission and as such could be developed more.

### 7.2.2 Specifications of the ratings

- ✓ The first table of key category a) shows that the shared vision and ideals (dominant symbolic discourse) scores high as well as role modelling. Yet the continuous engagement of employees in general and the nurturance of intrinsically motivated employees do not score so well. My BOC analysis already indicated that Interface does not necessarily do much more to keep its employees engaged than most other companies (e.g.: internal contests and informal employee parties) and that even highly motivated employees are not always well facilitated.
- ✓ The table of key category b) shows that the BOC scores very high on informality, openness and social ambiance. The BOC scores average on feedback possibilities, because to direct supervisors this is almost always possible, but this is more difficult in terms of structural issues to leaders higher within the organization. The level of autonomy also scores very high and in fact, this is not necessarily positive when it comes to cross-departmental collaboration (see model 7.2). Innovation willingness, risk taking and experimentation also has a high score. However especially balance between work pressure and time/space for reflection is an issue.
- ✓ Within the table of key category c) it is conspicuous how low internal communication in general scores. Information technologies are not optimal and knowledge documentation and management throughout the organization is neither very structured. Little exchange of expertise, current projects, ideas and 'knowing how to find one another' is particularly an issue among non-technical departments. As my BOC analysis indicated, these issues are present both on a daily level and with regards to sustainability innovation.
- ✓ From the table of key categories d), e) and f) it appears that it is not so much a lack of financial resources that poses challenges, but rather a lack of physical structures to 'spontaneously cross-fertilize'. Moreover again the issue of insufficient free space/time to realize additional sustainability initiatives is interrelated with the fact that it also requires a significant amount of personal investment in terms of time and effort to realize a project proposal. There are basically no institutionalized structures to counter habituation, to

brainstorm or to create more time for (highly motivated) employees to work on long-term sustainability projects.

- ✓ In terms of category g) fostering external connections seem to be well integrated into the BOC of my case study (e.g.: The Awarehouse, engagement with suppliers, partnering with universities and the role of the manager of sustainable development). However, internal connections are fostered with a number of virtual platforms, but these do not always seem to be effective or actively working (yet). Moreover it is precisely the manager of sustainable development who seems to 'link everyone and all ideas and current projects' together, but internal connections could certainly be improved among employees in general both on a local and global level. In terms of feedback loops, this does not seem to be common within the BOC. In fact, it is rather the case that there is too little time for in depth reflection and evaluation due to the constant stream of product launches, events and innovations. Yet there is a high level of few explicit behavioural boundaries and local decentralization.

It is questionable how these ratings or rather the level of effectiveness of these organizational cultural aspects that according to Auernhammer and Hall as well as Dooley foster innovation, are reflected within or basically influence the innovation processes within my case study. I will touch upon this issue in the next § 7.3.

## § 7.3 INTERFACE'S BOC IN RELATION TO INNOVATION (PROCESSES) FOR SUSTAINABILITY & STAGES OF TECHNICAL INNOVATION

### 7.3.1 Strategic alignment and clarity of intent

Before I will argue how the BOC of my case study to a large extent impacts innovation processes for sustainability, I would like to stress first and foremost that strategic alignment is a precondition for corporate sustainability innovation (CSI) to emerge in the first place. This means that as Herrera Baltazar argues the main executive board deliberately needs to envision and integrate social and environmental issues into the business' core strategy before CSI can emerge (2015). This also implies that BOC mainly fosters and sustains CSI rather than that the former *predetermines* whether CSI comes into being or not. In fact what predetermines CSI to come into being is: strategic alignment of a company. As a means of illustration CSR does not enable sustainability innovation, precisely because CSR does not embed social and environmental issues into a company's core strategy. In contrast approaches such as CSV and social entrepreneurship indeed have such issues incorporated into their main business model. Regarding my case study it should be acknowledged that sustainability innovation within Interface only emerged, once Anderson and other global executive board members consciously decided to formulate a sustainability mission (with the help of the Eco Dream Team and The Natural Step) that has become part of Interface's long-term strategic business objectives. It has been extensively described in chapter 3 'Contextual background' how this change in strategy developed and how it was done. I will not further theoretically elaborate upon strategic alignment, because I believe it is most important to simply acknowledge that strategic alignment is a prerequisite for a BOC to be an important factor in fostering and sustaining CSI.

### 7.3.2. The relationship between Interface's BOC and innovation processes for sustainability

In order to explain how the BOC of my case study relates to innovation processes for sustainability, I will first give a summary of the mostly descriptive findings that emerged out of applying the 'six components of innovation' to my research data, which I did in chapter 6 (Baregheh et al., 2009). Such a summarized overview is needed in order to determine in what way Interface's BOC relates to how their sustainability innovation (processes) work in practice and what perceived related challenges. Table 7.4 gives an overview.

It must be stressed that the main findings around innovation (processes) in table 7.4 and related challenges as well as points for recommendations are all highly influenced by the BOC of Interface. Hence I have also placed the categories of the three BOC models 7.1, 7.2 and 7.3 from § 7.1 in the table (SC, I, BP and symbolic discourse). It indicates that these categories basically lead to the innovation processes that I summarize in the table.

	<i>Summary of main findings around innovation (processes) of my case study in relation to BOC conditions</i>
<b>1. The spark &amp; start of innovation</b>	<ul style="list-style-type: none"> <li>▪ Technological product and operational/manufacturing innovations at technical departments: LCA assessments, conferences, researches, suggestions of suppliers and matter of chance (product and process innovation). Recurring problems, challenging future vision, questions or suggestions from production employees, specific programs such as QUEST/War on Waste, monthly meetings between higher level management (technical service, engineering)</li> <li>▪ Mainly service, organizational and people innovations at other departments that in certain aspects overlap with product and operational issues: only sometimes cross-departmental group meetings (mostly general ideas), conferences, fairs and latest (consumer) trends, network events.</li> </ul> <p><i>I – 3; I – 7; I-8; BP – 5; I – 11; I – 12; I – 13; I – 18</i></p>
	All five stages of the innovation process are more overlapping back and forth and dynamically

<b>2. Stages of the process</b>	transitioning into one another. This is due to iteration, evaluation and consequent readjustment of prototypes, pilots and issues such as unexpected problems. Most large-scale innovations tend to take at least several years before they can be fully integrated and adopted. <sup>55</sup>
<b>3. Type of innovations</b>	<ul style="list-style-type: none"> <li>▪ Type of innovations is mostly product, operational with a focus on physical-environmental sustainability.</li> <li>▪ Service innovations are focused on new business models and building client relationships.</li> <li>▪ Organizational and people innovations are relatively few. Examples are the Ambassadors' network, LOOP and the Young Potential program.</li> <li>▪ All types of innovations have been predominantly local (i.e.: for Europe only, EMEA or even only per country, but <i>not</i> global). For example innovative product collections such as Microsfera may differ per continent or are not even available yet in other continents, innovative solutions for operations are mainly locally developed and adopted, the Young Potential Program is meant for employees from the EMEA division and the Ambassadors' network was developed and only implemented in Europe.</li> </ul> <p><i>BP-1; I - 7; Symbolic discourse; BP - 4; I -12; I - 13; Human sustainability</i></p>
<b>4. Other features</b>	<ol style="list-style-type: none"> <li>a) The GI team is mostly responsible for coordinating large-scale (more global) innovation projects, long-term trends of the company and for creating more connection between various continents in terms of innovation. Local technical departments are mostly practically and operationally responsible for concrete and (locally) applied innovation projects and are thus focused on project management.</li> <li>b) Local ideas with significant potential can ultimately be picked up on a global level for instance through the GI team.</li> <li>c) Financial risks are taken into consideration through: feasibility studies, dividing projects into phases and by investing in learning experiences before upscaling and implementation.</li> <li>d) Most low-hanging fruit has been picked. Now a matter of more intricate and relatively small innovations to achieve the top of Mount Sustainability.</li> <li>e) There are also (office) employees who are willing to take up initiative and responsibility for realizing innovative ideas and (local) projects often, but not exclusively at non-technical departments (e.g.: KLM, carpet cleaning machines of 500 watt, a project management tool, The Awarehouse, Total Productive Maintenance). Such projects exemplify a certain attitude:</li> <li>f) Often intrinsically motivated to contribute to environmental sustainability or to Interface as an organization at large.</li> <li>g) Not green-washing or exclusively a form of marketing. Instead mainly related to the company's formulated 7 fronts, even though these fronts are not common knowledge among employees.</li> <li>h) Collaborating with other organizations and initiatives</li> <li>i) Inspiring and informing others, sharing information freely (e.g.: cleaning machines and sending information about Interface's journey to customers who do not feel much affinity with sustainability yet)</li> <li>j) Importance of employee engagement (e.g.: Total productive maintenance)</li> <li>k) Entrepreneurial skills, lobbying and pro-activeness required (e.g.: The Awarehouse).</li> </ol> <p><i>BP - 1; I - 2; I - 3; I - 4; SC - 2; Symbolic discourse; I - 7; I - 18; BP - 5</i></p>
<b>5. Collaboration</b>	<ul style="list-style-type: none"> <li>▪ Technical departments: 1) Per concrete project different technical experts (sometimes from various continents depending on the scale of innovation) collaborate in a project group, under the supervision of a specific project manager or under/with members of the GI team. Experts from different continents only come together on a project basis for the development stage. 2) During the assessment stage there is little initial cross-fertilization and collaboration in terms of 'regular brainstorm sessions' neither between continents nor between local (technical) departments.</li> <li>▪ Yet irregularly, so more 'spontaneously' local technical experts from various departments do walk into each other's office and sometimes have meetings or ask each other for collaborative assistance.</li> <li>▪ Other research groups, NGOs and business partners are frequently part of specific projects</li> </ul> <p><i>SC - 1; I - 1.1; I - 1.2; I-7; Symbolic discourse</i></p>
	<b>Challenges in terms of CSI in my case study, including a number of recommendations for improvement with regards to my case study:</b>

<sup>55</sup> I believe that a thorough understanding of the 'stages of the innovation process' would require a longitudinal study of concrete innovation projects. Obviously this is not possible within a 6 months research. Hence I acknowledge that I have not gathered very specific knowledge on this aspect of innovation. However it is important to stress two issues. Firstly, I can indeed argue that the stages of innovation processes basically form a CAS. This means that stages can unpredictably shift from one into the other, which can lead to unexpected positive, but also more negative circumstances as well as results. There is also an element of uncertainty especially within the first stages of an innovation process, because various interacting parts are involved such as human agents and their regular as well as nonlinear behavior, technological and material issues, structural facilities and other means necessary to fully adopt an innovation, societal trends and market changes and organizational developments. Hence the results cannot be fully controlled and predicted, the more because innovation as a process is essentially experimental. Secondly, the fact that 'the stages of innovation processes' form a CAS and that I would need a longitudinal study to deeply understand such processes, does not mean that other aspects of innovation cannot be explicated. In fact, table 7.4 is a result of such explication and it is precisely these other aspects that I need in order to understand to what extent BOC can foster corporate sustainability innovation.



<p><b>6. Work/time pressure and speed of innovations</b></p>	<p>A (increasingly) higher work pressure with a constant stream of innovative projects, leaves little space for a) reflection on what goes well and what needs improvement, b) keeping up to date with news and the status of sustainability innovations, c) maintaining and managing existing capacities as well as a continuous flow of relatively large-scale innovative projects can create disadvantages and unforeseen circumstances in terms of streamlining these projects with existing work procedures and other operational systems. Besides streamlining tends to consume much time from relevant employees and is thus financially costly as well, d) realizing individual ideas and project proposals (often for one's ambassadorship, but also in general) which instead frequently run aground. Employees also tend to worry about the additional workload and time pressure that will increase and consequently the potential decrease in the quality of their main work, once they need to personally invest in sustainability innovation. Moreover also individual risk taking may play a role.</p> <p><i>SC - 15; I - 2; I - 8; I - 17</i></p>
<p><b>7. The ambassadors' network</b></p>	<p>The former issue of (increasing work/time pressure) also leads to little space to invest in one's ambassadorship. There is not sufficient cross-fertilization between ambassadors, as mentioned project proposals are not always realized and neither do ambassadors have sufficient time to give visitor tour guides through the Awarehouse, which is a returning organizational issue. The Ambassadors' network has much more potential for engaging, facilitating and providing opportunities for this relatively more driven group of employees than is currently the case. Yet proactive leadership has not been taken (yet) to lobby higher within the organization for a constructive solution, but a performance structure could provide an outcome. Such solution would require internal leadership backing and facilitative support. Instead of organizational leaders mostly focusing on their own tasks, it would be better if they would collaborate and take up the responsibility to address such issues higher within the organization.</p> <p><i>SC - 15; I - 2; I - 7; I - 8; I - 17; I - 14; symbolic discourse</i></p>
<p><b>8. Cross-departmental communication and collaboration (horizontal)</b></p>	<ul style="list-style-type: none"> <li>▪ Cross-departmental meetings for innovation happen on a higher management level, but not on a more daily and local operational level. In fact it is not surprising that the need for more internal connections, better cross-departmental horizontal communication and local knowledge management to increase collaboration in terms of daily work, is also an issue on the level of innovation processes.</li> <li>▪ More structured guidance and planning of projects (i.e.: steps, appointments, phases), structured guidance of updating basic communication tools, a better organizational implementation of LOOP and creating more physical spaces for interaction, could improve the abovementioned issue.</li> <li>▪ In terms of beliefs: changing beliefs and consequent practices around the amount of autonomy and the attitude of 'let's just see where we end up' probably also improves the extent to which departments are geared towards one another.</li> <li>▪ Finally, collective engagement into defining and deepening understanding as well as vision around the role and purpose of each department as well as changing beliefs about what constitutes sustainability innovation, could also improve the abovementioned issue.</li> <li>▪ More dissemination and facilitating exchange of ideas, expertise and knowledge around individual responsibilities and tacit know-how between employees from various departments can generate many hidden possibilities for innovation, mutual assistance and insights on how to tackle common issues. In fact, out of the interviews it appeared that a large number of employees have tacit knowledge, rich experiences, interesting views and interpretations on their work and insights about recurring issues. Hence if employees would be able to exchange more amongst each other and together delve deeper than their daily work, it would probably unleash a significant amount of collective intelligence and insight on organizational performance. Besides local employees could also once in a while participate in management meetings that revolve around current innovation projects to contribute their detailed knowledge, expertise and insights to important decision-making.</li> <li>▪ At the same time, another issue is that cross-departmental collaboration between employees to foster technical (i.e.: product and operational) sustainability innovation is not necessarily feasible, because this requires expertise. More general meetings for sustainability innovation could be very fruitful, but can also remain too 'general and global' in terms of ideas. As a consequence nobody takes up initiative and returns to their daily work.</li> </ul> <p><i>Model 7.2</i></p>
<p><b>9. Cross-continental innovation and the GI team<sup>56</sup></b></p>	<ul style="list-style-type: none"> <li>▪ Local autonomy is certainly favourable to foster bottom up initiatives and local innovative solutions. Precisely the fact that local departments and individual employees generally have to find their own solutions creates space for innovation. In fact, too much uniform centralization, standard procedures and single models for decision-making can limit necessary variety (Snowden, 2000). However it is questionable what untapped potential there is in terms of structural international knowledge management. This means that currently</li> </ul>

<sup>56</sup> Another point for improvement that has been mentioned by several respondents, but which ultimately is not directly related to sustainability innovation as such is the fact that Interface should sell itself better. Several respondents have said that Interface's marketing strategy could be more focused on gaining media attention, making itself more known through consumer campaigns and ensuring more publicity. One respondent argues: During events we sell ourselves through Mission Zero. Consequently a supplier and director of another company were very enthusiastic about the mission, but in the end we forget to inform them that Interface produces and delivers carpet tiles. One other respondent says: 'Our company culture in The Netherlands is modest, but we can become less modest. We don't promote Interface enough'.

	<p>there is not sufficient facilitation of structures for employees to amongst each other connect cross-continently and with the GI team, except for LOOP. Yet facilitating intercontinental learning and exchanging best practices is likely to significantly increase organization-wide innovation capacities. Hence also more regular exchange is needed between technical experts on a local and global level.</p> <ul style="list-style-type: none"> <li>Most employees do not know how the GI team daily works and operates. This could possibly limit capacity for co-innovation and influencing the global innovation agenda, as the gap becomes larger to suggest bottom up ideas.</li> </ul> <p>BP - 1; SC - 1</p>
<b>(Employee engagement and low turnover)</b>	<ul style="list-style-type: none"> <li>In terms of the level of employee engagement: support is relatively widespread and common, but actual action is not. It is questionable whether the core group of contributors to sustainability innovation can be increased and what would happen to the level of sustainability innovation projects within the organization, if the company would invest more and very deliberately in for instance I - 5 (level of employee acknowledgement and career development) and I - 6 ('feeling listened to') as well as I - 15 (inclusion of production employees). Nevertheless, I would argue that the company performs very well in terms of I - 4 (employee fulfilment) and regarding its symbolic discourse. These two phenomena must have a significant positive impact on the level of employee engagement for sustainability.</li> <li>It is also questionable what the precise effect is of SC -3: low employee turnover. I cannot state in what sense this has a positive effect on sustainability innovation and in what sense it does not. This would require an even more extensive research.</li> </ul>
<b>(Potential organizational blind spots)</b>	<ul style="list-style-type: none"> <li>It could be important to create much more time, 'safety' and a common organizational practice of critical reflection, instead of predominantly focussing on the company's many successes.</li> <li>Moreover not necessarily age in itself is a problem, but long-term employment can lead to habituation and thus to less critical questioning. Yet critical questioning is needed for organizations to keep on learning and improving structural issues. Besides habituation can also mean that 'sustainability' is a common and 'normal' day to day topic (i.e.: it is nothing special anymore). This diminishes exchange about 'sustainability', which inevitably impacts the amount of cross-fertilization between employees. This again implies a question of how to keep employees sharp, engaged and inspired.</li> </ul>
<b>(Human sustainability)</b>	<ul style="list-style-type: none"> <li>Arguably Interface could achieve much more in terms of general employee development and making use of the full organizational human capacity that is potentially available, rather than mainly focusing on physical-environmental sustainability, external societal concerns and employees in relation to the issue of sustainability. Career development and employee acknowledgement have been mentioned, but it could also be important to invest more in terms of developing personal leadership among employees (see my analysis of the learning organization).</li> </ul>

Table 7.4 Summary of main findings around innovation (processes) of my case study in relation to BOC conditions

The three BOC models depicted in § 7.1 already to a large degree gave a visual overview of how cultural phenomena influence innovation processes within my case study. Consequently the tables from § 7.2 specified what ratings can be given to organizational cultural aspects within my case study that are relevant for fostering innovation (processes) according to various authors. Moreover table 7.4 also illustrates that BOC is crucial for corporate sustainability innovation in terms of where innovation can start, the types of innovation a company makes, specific features, the level of collaboration and related organizational challenges (see all the abbreviations from sociocultural, ideational and symbolic phenomena that are depicted in the table). In fact, if I would compare the ratings and consequent specifications of these ratings from § 7.2 with the description of the table above, it can simply be argued that all these ratings tend to have a direct effect upon how innovation processes function and related case specific needs for improvements. I have shortly specified per row in table 7.4 how Interface's BOC is related to, or rather influencing their innovation processes for sustainability:

### 1 & 3. The spark and start of innovations and type of innovations

The fact that the espoused vision and mission are rather well integrated into the BOC in terms of actual shared values and ideals, a high level of common awareness around Mission Zero and that there is a high level of innovation willingness, determines the spark and start of innovations and the type of innovations that are described in table 7.4. The three BOC models equally show that the type of innovations is determined by several cultural phenomena: namely the actual shared values and ideals (I - 7) of the company as well as its symbolic discourse play a role. At the same time beliefs around what constitutes sustainability innovation are even more important when it comes to what type of innovations a company strives for. In this case it has mostly been physical-environmental and thereby mainly technical innovations (BP - 4). The fact that the vision on *internal* human sustainability is limited compared to Senge's learning organization, also predetermines the type of innovations within a company leading to mainly physical or socio-environmental innovations. Yet the phenomenon of creative, idiosyncratic individuals working within the company (I - 12) and the belief that autonomy is

important, as well as space for local solutions and an entrepreneurial attitude (BP – 1) also influence the variety of types of innovations and processes that emerge within a company.

#### 4. Other features

This rather well integrated espoused vision and mission into Interface's BOC, also directly influences certain features of innovation processes (see table 7.4). Other relevant BOC phenomena are the belief that self-reliance, local solutions and autonomy are important (BP – 1). This for instance leads to a requirement of entrepreneurial skills. The symbolic discourse and the ideational phenomena of actual shared values and ideals (e.g.: inspiring others) throughout the company (I – 7) as well as the fact that initial sceptical beliefs have changed (BP – 5), the high level of employee fulfilment (I – 4), the persistence of top management, the clarity of the vision and the positive business results that employees have experienced (I – 18), have all fostered certain features of innovation (processes) within the company. Such features are for example an intrinsic organizational motivation to contribute to sustainability besides obvious business benefits; the fact that the company is genuinely working for sustainability instead of green-washing; the amount of collaboration and sharing knowledge with others and the fact that at other non-technical departments certain innovative ideas for sustainability are also realized.

#### 5. Collaboration

The sociocultural phenomenon of divisions being autonomous and more centralization only being present since several years and originally little centralized implementation of global systems (SC – 1), is clearly related to the fact that for innovation technical experts across various continents only work together on a project basis and that every location seems to make its own local and specific innovations, without much cross-fertilization between continents. The fact that local technical experts do meet with one another 'spontaneously' or ask for each other's assistance has to do with the symbolic discourse and the actual shared values and ideals between organizational members, but is also due to the fact that there is general willingness and openness to assist one another (I – 1.1. and I – 1.2). Also the fact that for innovation other parties are involved is a consequence of the symbolic discourse and the actual shared values and ideals within the company (I – 7).

#### 6. Work/time pressure and speed of innovations

The fact that the rating on sufficient time and balance between work and space for reflection scores low within Interface's BOC, is directly related to challenges around innovation (processes) such as less attention to potential improvements, little time to remain up to date with sustainability news as well as the fact that few project proposals are actually realized. To be more specific, all these challenges are actually related to cultural phenomena. For example: daily work is busy (SC – 15); entrepreneurial skills and finding one's own solutions also requires time and personal effort (I – 2); work pressure is experienced as high (I – 17).

#### 7. The ambassadors' network

The fact that within my case study the company or organizational leaders could more strongly invest in facilitating their most motivated employees is related to issues around the Ambassador's network (see table 7.4). This means that BOC phenomena such as: daily work is busy (SC – 15), the relatively high level of entrepreneurial skills and investment of time and personal effort that is required for one's ambassadorship (I – 2) and top management is playing out in a stronger force field (I -14), influence how an innovative organizational and people project such as the Ambassador's network is functioning and which challenges it faces. At the same time, employees have only become ambassadors, because there also other cultural phenomena present such as the symbolic discourse, the ideational phenomena of actual shared values and ideals (I – 7) and employee engagement (I – 8).

#### 8 and 9. Cross-departmental communication and collaboration (horizontal) and cross-continental innovation and the GI team

The low rating of internal communication of Interface's BOC, directly impacts the amount of cross-departmental communication and collaboration for (potential) innovations. Besides BOC model 7.2 clearly explains and depicts the interrelations between various BOC phenomena that cause local cross-departmental collaboration for innovation to be rather low. Also the fact that there is a high rating on local decentralization within the BOC, determines the current level of cross-continental innovation.

All in all from the analysis of my case study of Interface, it seems evident that a BOC strongly impacts innovation processes for sustainability and that organizational cultural phenomena, whether they be sociocultural, ideational or symbolic, can foster and equally limit or pose challenges for innovation processes. It is important to remind that in chapter 3 'Contextual background' I have given a short overview of 6 factors that according to Harel have contributed to the success of Interface and that illustrate the company's culture (2013). It is remarkable that after my case study analysis I can argue that at least 4 of the 6 factors are indeed the case. These are: being a frontrunner and a 'just do it' mentality; an ambitious vision that indeed offered a new way of understanding the world and gaining environmental awareness within the company without forcing people, which equally led to a shared vision and values; openness to experiment, change and questioning the status quo (for example the

'Beyond 2020 interviews); and the continuous investment in product and manufacturing operations. However with regards to the other 2 factors on the basis of my analysis it can be argued that it is neither the case that clear and effective internal communication has greatly fostered sustainable change, nor the idea that continuous facilitative attention has been given to whether employees deploy their talents sufficiently.

Even though I have included important recommendations within table 7.4, it must be stressed that my case study also proves that a company can be highly successful in terms of physical-environmental sustainability innovation despite the fact that organizational conditions such as communication facilities, availability of resources such as sufficient time, structured project management, regular institutions to foster creativity such as brainstorm sessions, physical office spaces to exchange ideas and effective cross-departmental collaboration are not present or sub-optimal. Auernhammer and Hall argue that the most important cultural conditions are in fact, key category a) and b). These are 'strategy: vision and leadership' and 'organizational behaviour in relation to climate/atmosphere and employees'. On the basis of my case study I would certainly argue the same. Precisely because key category a) and b) score on almost all aspects high to very high at Interface their sustainability journey has been successful despite the abovementioned challenges. This is important knowledge for questions around sustainable business change in general. Hence I would like to give an overview of what can be learned from this case study with regards to general private sector sustainability. Therefore in the next chapter 8 I will specify a recommendation that is based upon my analysis and which will include general suggestions on how companies can foster innovation processes for sustainability through focussing on certain BOC conditions.

### 7.3.3 Comparing Interface's technical innovation processes to the 'five stages of change towards corporate sustainability'

In addition, in order to analyse Interface's product and operational (i.e.: technical) innovation processes even better I would like to compare them to the 'five stages of change towards corporate sustainability' (Nidumolu et al., 2009). For a description of these stages I refer to chapter 2: 'Theoretical framework of analysis'. It is important to understand this specific type of innovation (processes) in order to be able to provide a final general recommendation for companies striving to operate more sustainably.

Stages	Short description of the case study of Interface in comparison to Nidumolu et al., 2009.
<b>Stage 1</b>	Initially Interface merely complied with environmental regulations. However in contrast to the argument of Nidumolu et al., through compliance Interface did not consequently gradually developed more environmental-friendly products, services and operations. Instead the company kicked-off with a radically new vision and launched Mission Zero.
<b>Stage 2</b>	This stage of Interface's sustainability journey is largely similar to Nidumolu et al. Yet it must be stressed that in general companies tend to predetermine a certain percentage of reduction by a certain year (in waste, energy and resource usage, emissions etc.). As mentioned before, Wal-Mart is an example. In 2008 the CEO required 1000 Chinese suppliers to have reduced their packing costs with 5% by 2013 and to increase the energy efficiency of supplied products with 25% by 2011 (Nidumolu et al., 2009). This is fundamentally different from Interface, since the company never envisioned a reduction, but an objective of zero environmental impact on all levels.
<b>Stage 3</b>	It is remarkable that Nidumolu et al. argue that stages need to be successive. Surely all stages cannot be executed or practically realized at the same time. However Interface as a business example illustrates that basically all stages can at least be envisioned at once and that transforming into a sustainable company does not have to be linear. This implies that Interface from the very start aimed to have a restorative capacity and lead by example through sharing knowledge and including stakeholders and that this did not come only after stage 1 and 2.
<b>Stage 4</b>	It must be acknowledged that actual new business models only later on emerged. According to the alumnus of Interface, initially there was a main focus on the environment and the product as such, whereas since several years Interface includes the broader environment in terms of aligning products with sales, design, changing customer needs and social sustainability. Instead of selling a product the company is now selling concepts such as Net-Works and Re-Entry.
<b>Stage 5</b>	For this stage counts that Interface initially started with questioning the status quo. This means that one does not necessarily have to pass all 4 former stages first, before a company can for example ask itself: 'Do we have to sell oil and petrochemicals in the form of a carpet?' or 'if nature designed an industrial process, what might it look like?' Asking questions that challenge the status quo does not seem to be a daily practice or very common among employees, even though it was indeed Anderson's vision that this would be integrated into the organizational culture. However especially at technical departments questioning certainly happens in order to formulate new projects and to come up with possibilities.
<b>Additional</b>	The additional aspects of Nidumolu et al. are highly applicable to my case study of Interface.

Shortly this comparison indicates the following: 1) compliance is not a prerequisite stage that needs to be sustained to gradually shift into more environmental practices. In fact in principle any company could formulate and aim to realize a radical sustainability vision. Even though it is likely that 'radical' is often perceived as being 'undoable' or 'too different from what organizational members are used to', 'radical' can also indicate 'ambitious', 'early frontrunner' and 'visionary'. A vision can from the very start take into account several important factors such as including stakeholders, which basically fosters strategic alignment. 2) My findings indicate that precisely an objective such as zero environmental impact, instead of an objective such as reducing 5% packaging waste in 5 years, is more easily understood and is likely to provide a much higher motivation than an objective, which only requires 1% reduction per year. 3) New business models wherein amongst others customer needs are redefined, new markets are created and (more circular) services are developed, are essentially part of corporate sustainability and business innovation. 4) Daring to ask critical and basically confronting questions as well as challenging the status quo can inform a fundamentally different way of thinking and looking at 'problems' and 'potentialities'. My case study and Nidumolu et al. affirm that this is important in order to broaden our range of possible actions.

In addition, it must be emphasized that the actual implementation of such technical principles requires the capacity of organizational members. This basically means that the ones who are amongst others creating new business models and are looking for new trends, who are connecting to stakeholders and external parties and who are executing LCA analyses and developing innovations to reduce waste (i.e.: carrying out and realizing all the five stages), are in fact employees across the organization. This cannot be all done by top-level management or by one innovation team that consequently gives orders to the different countries wherein corporates often operate and that have many varying conditions and local circumstances. Thus on an operational level it must be middle-level managers, teams, and individual employees. This is not only because out of practical feasibility, but also because neither top level management nor innovation experts necessarily have all the answers. In fact innovation is often a result of chance, networks and collaborations with external parties and various ideas coming from diverse sources and engaged employees. Again this is a clearly an argument for the relevance of BOC, because such matters are especially fostered and can be maintained through cultural phenomena.

There are also several important differences between Interface and Nidumolu et al. (2009). The latter argues that companies are smart to opt for strategic sustainability, because it yields 'bottom-line and top-line' returns, it lowers costs and will create revenues from developing new businesses. This basically implies that reason to become more sustainable is not intrinsic, but merely because it is ultimately profitable. This is very different from Interface's restorative vision. Also Nidumolu et al., only seem to address corporate executives, whereas their stages do not specify what employee engagement entails beyond 'recruiting and training the right people'. However my analysis has shown that amongst others relatively widespread employee support in terms of a common environmental awareness and an understanding of sustainability to foster the spark of innovative ideas across departments, actual shared values and ideals, space to contribute ideas, willingness to assist each other among employees, intrapreneurs and developing communities of practice such as the ambassadors' network are highly significant for sustainability innovation. This article has been written in 2009 that is at least more than 10 years after Interface's started its sustainability journey. I mention this fact to illustrate that despite limitations in terms of the generalization of such a specific case study, my findings of this study are likely to be relevant for other companies as well if 10 years later similar principles and guidelines surface in an article that has researched 30 different companies and their sustainability initiatives. This basically positively affirms the strategy and guiding principles that Interface has taken.

Finally on the basis of my descriptive analysis of technical product and operational innovations in chapter 7; regarding eco-innovations<sup>57</sup> it can be argued that Interface has booked major achievements in terms of 'eco-efficiency and optimization', even though 'eco-effectiveness and redesign of systems' has been taken into account from the start. It seems that the company is now ready for 'Beyond 2020' to become a fully restorative enterprise by focusing on complete recycling (e.g.: Re-Entry) and by designing products that can even have a positive impact on the environment (e.g.: a carpet that functions like a leaf extracting CO<sub>2</sub> or a factory that functions like a forest).

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<sup>57</sup> From my theoretical framework: 1) End-of-pipe solutions: this is a form of corporate social responsibility wherein environmental damage is reduced, but mostly measured to obtain certification without fundamentally changing product and process technologies. 2) Eco-efficiency and optimization: this is a form of producing more with less and includes factors such as reduction, re-use and recycling components. 3) Eco-effectiveness & redesign of systems: maximizing biocompatibility, which means that products and industrial processes are designed that mimic nature and its closed loops wherein 'waste equals food'. Instead of focusing on minimizing environmental impact, the question is how to create human-made industrial production systems that are fully compatible with the natural environment and could even have a positive environmental impact (The Encyclopedia of Earth, 2015).

## § 7.4 CORPORATE SUSTAINABILITY INNOVATION, CSV AND INTERNATIONAL DEVELOPMENT ISSUES

In the literature review I emphasized that even though a company such as Interface may aim to operate more sustainably and reduce or even eliminate its total environmental impact with major achievements, it does not necessarily mean that it will include objectives that are related to prevailing issues within the international development arena such as poverty reduction and the provision of basic services, gender inequality and local environmental issues such as the depletion of resources and deforestation. Moreover from paragraph 7.1, 7.2, and 7.3 and amongst others the elaborate analysis of BOC phenomena; to what extent the espoused vision and mission of Interface are integrated into their BOC; the analysis of innovation processes and how these are related to BOC phenomena, it has still not become clear whether the objective of a company to operate more sustainably, necessarily includes a concern for international development issues. Therefore in this final paragraph 7.4, I will argue to what extent the sustainability mission and CSI processes of Interface include such issues and what this means for business firms in general.

### 7.4.1 The importance of strategic alignment for CSI to include international development concerns

The third institutional element of Herrera Baltazar's model is 'clarity of intent' (2015). This institutional element is mainly socially oriented in the sense that it not only focuses on a) customer and product responsibility (i.e.: safety, quality and health standards), but also on b) governance and society, which is mostly a matter of international development issues such as community involvement, human rights and livelihood programs, and on c) value chain and environment (i.e.: the environmental impact of products). My BOC analysis and the consequent analysis of Interface's innovation processes clearly show that the company takes into account a) and c). Value chain and environment is for instance included through LCA analysis and EDP certifications. However with regards to b) governance and society, this is not so evident and as such requires more critical analysis.

It can be stated that if a company aims to reduce its environmental impact or strives to innovate for more sustainable products and manufacturing processes, it certainly does *not* necessarily mean that the organization will also include social-economic and environmental concerns of developing countries. The five stages of Nidumolu et al., which is depicted in chapter 2 'Theoretical framework of analysis', also contain relatively few of such concerns (2009). In fact, most of the recommendations are focused on compliance with environmental regulations and physical-environmental measures for manufacturing processes that can indeed be mostly executed internally. Thus if a company would have production plants located in Western countries, it could also merely focus on on-site manufacturing processes, as this would certainly reduce the organization's environmental impact. Yet within stage 2 of the table, LCA analysis is mentioned, which is also extensively used by Interface. LCA analysis fosters an organization to focus on its supply chain management. Frequently producers and suppliers of corporate firms are located in developing countries. This implies that a company almost inevitably has to engage its stakeholders or specifically, its suppliers and producers that are often operating in low-income areas worldwide, to reduce or even eliminate the organization's (largest) environmental impact. However even in terms of such external operations, Wal-Mart for instance only gave the directive to its Chinese suppliers to reduce packaging costs with 5%, which clearly is not a form of including governance and society (Nidumolu et al., 2009; Herrera Baltazar, 2015). Thus a corporate that aims to operate more sustainably with less environmental impact, does not necessarily have to deal with issues of international development. This amongst others also makes a strong case for the necessity of CSV and BoP strategy with regards to the role that corporate business can play in the economic and social development of low-income communities around the world.

Instead I would indeed argue that if a corporate firm truly aims to innovate for sustainability (so *not* merely reduce or even eliminate its environmental impact), it will almost *inevitably* come across and hence have to include issues that are related to international development. This is because 'truly aiming to innovate for sustainability' basically means strategic alignment (Herrera Baltazar, 2015). This implies: to fully embed social and environmental issues within the core business strategy, instead of having a core business strategy with additional objectives of environmental sustainability. I already mentioned in my theoretical framework, that strategic alignment creates significant opportunities for CSV, which is specifically focused on social deficits and issues within poorer areas and developing countries. Such opportunities are created, because strategic alignment will force a company to think differently about its products, processes, business models and partnerships, instead of merely applying technological measures (to existing operations) in order to achieve (more) environmental sustainability (Nidumolu et al., 2009). Thus even though this is not part of the first stage in the table of Nidumolu et al., finding new avenues for value creation for the customers, the company, but also the broader environment and society is an integral part of strategically embedding sustainability innovation (2009).

#### 7.4.2 Net-Works as a form of CSV

The abovementioned argument is evident from my case study of Interface. Interface has indeed strategically aligned environmental and social issues into its core business strategy and has thereby created an opportunity for CSV. Firstly, I explained in my theoretical framework that in order to create CSV, three strategies have to be addressed. To give a short recap, these three strategies are a) reconceiving products, consumers and their needs, b) a reconceptualization of productivity within the value chain and external societal weaknesses impacting business viability and c) local cluster development. It can be argued that Interface's corporate sustainability innovation (processes) are mostly in terms of the last two strategies a form of CSV. Examples abound for strategies b) and c). For instance in terms of b) separating all waste and recycling all packaging material, ultrasonic cutting machines, programs such as Re-Entry, production plants that function like a forest and research into bio-based materials all indicate how much the company pays attention to societal harms such as resource depletion and wasted resources. In terms of c) examples are the PVB project, carpet cleaning machines, a partnership with local biogas suppliers for the production plant and above all Net-Works. Actually only in terms of this last example: Net-Works, Interface fully creates shared value, because it is the only corporate sustainability innovation that has actually included strategy a). This implies that so far the company has done relatively little in terms of 'serving underserved customers and identifying social issues and deficits in developing countries' compared to the amount of technical physical-environmental innovations and local cluster development with western stakeholders. This is a result of the fact that the company has been predominantly focusing on physical-environmental reductions, before it would address broader societal concerns within its global supply chains.

Secondly, it is important to shortly elaborate on how strategy a) is part of Net-Works. As explained in chapter 6 mainly together with ZSL, Interface basically identified a severe socio-environmental issue of discarded fishing nets creating environmental havoc within vulnerable marine ecosystems, that aggravated the socio-environmental issue of overfishing among low-income coastal and lake side communities, both in the Philippines and currently also in Cameroon. Moreover these communities also experience deficits and are largely underserved in terms of basic financial services and additional income opportunities leading to poverty related issues such as low access to education, sufficient food and housing. Hence to a large extent Net-Works is an example of a) identifying and serving underserved customers in developing countries as well as identifying social issues and deficits that are basically overlooked market opportunities (Porter and Kramer, 2011). It must be acknowledged that Porter and Kramer mainly meant with strategy a) that companies would for instance develop new products and services such as relatively cheap and effective water filters or affordable and portable solar panels for cooking facilities to create shared value. As such Net-Works is strictly speaking not a form of CSV, because Interface does not create profit by directly offering a new product or service to 'underserved customers'. This means that Net-Works is not so much an 'overlooked market opportunity', but rather a formerly 'overlooked business opportunity for integrated social, economic and environmental sustainable supply chain management'. Yet I would still argue that Net-Works is a form of CSV that clearly includes international development concerns, in the sense that the company has identified a social issue and is serving underserved communities by addressing and contributing to the improvement of socio-environmental issues such as resource scarcity, environmental pollution as well as to the economic development of local communities in developing countries. Besides Porter and Kramer also suggested a question to create shared value: 'How can a new production plant be constructed that also benefits local communities and has minimum local environmental impact?' (2011). The question that would fit Net-Works and which is very similar indeed: 'How can recycled yarn be obtained that also benefits local communities and that does not have minimal local environmental impact, but even positive environmental impact?'

#### 7.4.3 Final remarks and an objective of creating additional value for society and the environment

The question that emerges from this case study and in this instance specifically from Net-Works, is what the reason is that one of Interface's innovations has included development issues and is even a form of CSV, whereas this certainly does not have to be the case for other companies also aiming for business sustainability. I would argue that what is most important and what enabled this to emerge is strategic alignment. I already explained and illustrated this with my analysis of Net-Works.

In addition, strategic alignment within my case study of Interface can also be related to the company's main objective, which is based upon its vision on sustainability and innovation. If a corporate's objective is to make a move towards 'sustainability' in terms of diminishing or even eliminating all environmental impact, it does not necessarily have to include developmental concerns. As argued, inevitably such a corporate will come across the necessity of engaging suppliers in developing countries as well, but even in this instance a firm can simply demand a certain amount of environmental impact reduction from its suppliers or centrally implement strict environmental measures of production without further engaging into 'governance and society'. At the same time, I would also argue that in most cases corporates do indeed integrate development issues such as the basic education of suppliers for instance on cultivation, providing local financial services, and facilitating sustainability

programs.<sup>58</sup> How viable and genuine this is, is of course another question all together. Besides these measures are to a certain extent frequently part of improving the brand reputation of a company, rather than an actual strategy to reduce the organization's environmental impact.

In contrast as is the case with Interface, if a firm's objective and vision on sustainability (innovation) is to not only focus on its environmental impact and implementing related measures or technological innovations, but to see this as integral to developing new business models and creating additional value for the broader society and environment, international development concerns are much more likely to become part of a company's innovations. In fact, from the start Interface coined sustainability as an ultimate objective of positive impact on amongst others people, process, product and place based upon a restorative vision, which has necessarily led to the need for contributing to societal issues in general, and since approximately 3 years also to issues within the international development arena. Indeed the company itself acknowledges that Net-Works has been the first step in becoming a fully restorative enterprise.

Shortly with regards to corporate sustainability innovation in relation to international development issues, it is thus on the one hand very important that companies strategically align environmental and social issues into their core business strategy, which will foster significant opportunities for CSV. On the other hand, explicitly regarding sustainability innovation as a form of value creation not only for the company, but also for the larger society and the environment (in Interface's vision this is a restorative contribution), also necessitates an inclusion of improving socio-environmental issues that indeed tend to prevail mostly within developing countries.

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<sup>58</sup> Even though this certainly requires more thorough research and though all articles are sponsored by Nespresso and are in my opinion likely to be a form of overrated advertisement, the Guardian Sustainable Business has given ample space for Nespresso to publish about its AAA Sustainable Quality programs with local coffee farmers, the company's provision of financial services and collaboration with local partners in countries that supply Nespresso's coffee beans. For example: <http://www.theguardian.com/a-shot-of-sustainability/2015/jul/23/nespresso-creating-a-better-life-for-coffee-farmers>



## CHAPTER 8 | CONCLUSION

### § 8.1 SUMMARY OF MAIN FINDINGS

#### 8.1.1. Espoused vision and mission well integrated into Interface's BOC

With regards to my main research question, it can first of all be argued that the espoused vision and mission of Interface is to a very large degree integrated into Interface's BOC and that at least socioenvironmental sustainability has become part of the company's DNA. My analysis has shown that the espoused vision and mission are expressed in numerous sociocultural, ideational and symbolic phenomena that characterize the BOC that constitutes Interface. Amongst others in terms of the sociocultural phenomena of a large number of small and large-scale physical-environmental innovations, general office and departmental practices, the office building itself and the various activities around externally connecting, collaborating and sharing knowledge with others, the degree to which sustainability thinking is part of relatively new circular business models and client relationships, indicate that the espoused vision and mission are to large extent embedded. The espoused vision and mission are also expressed through various ideational phenomena such as the actual shared values and ideals among employees and thus a genuine organizational commitment to sustainability, an internalized symbolic discourse that is mostly positive (amongst others: 'Interface is innovative; going in the right direction; sustainability is profitable; it is a beautiful company; value to the world') as well as common awareness and general support for Mission Zero among employees.

However especially regarding employee engagement and actual action, particularly for non-technical departments it can be argued that the espoused vision and mission are not well integrated in the sense that the large majority of employees are not only 'simply doing their daily work', but that generally office employees do not know what they precisely can contribute to the mission and how their department can play a significant role in terms of a large-scale reduction of environmental impact. Also regarding employee development and learning in general, it can be argued that in this sense the espoused vision and mission of 'continuous learning and talent development' are not fully realized within the BOC. With regards to the espoused objective of restorative contribution, after a sustainability journey of more than 20 years the company is currently beginning to work towards a full integration of their ultimate vision of becoming a restorative enterprise with a positive impact.

It can still be concluded that the espoused vision and mission of the company are to a large extent embedded within their BOC. In fact, it must be acknowledged that Interface is in many ways a leading example. It is a company that exemplifies and indeed shows the world that it is possible to inspire and educate employees to develop more environmental awareness, even in their private lives; that it is also feasible to transform a former highly polluting industry and to work towards a bold and ambitious achievement that seemed impossible as well as to have a vision and mission that is basically known and understood throughout the organization. Above all, Interface also exemplifies that sustainability is an intelligent business strategy and that it is possible to be a profitable company and sustainable at the same time. Despite these indispensable lessons from Interface as a business case in general, it does not necessarily mean that Interface's BOC is without challenges. In the following section I will elaborate upon this.

#### 8.1.2. The relevance of features of the learning organization for Interface in terms of (internal) human sustainability and development

Furthermore it can be concluded that the first feature of Senge's learning organization, namely 'shared vision and interpersonal connection' is highly present within Interface's BOC. In the former section I already referred to several ideational phenomena that support this statement. The second feature of 'personal fulfilment' is also highly present within Interface's BOC. This becomes clear from various ideational phenomena, which are amongst others pride and self-esteem, the perception that the company has educated many employees about environmental awareness and the benefits of sustainability, the fact that the mission feels as 'an additional motivation' and the general appreciation of the friendly open atmosphere. Yet in terms of the level of personal leadership, even though intrinsic motivation and common awareness around a larger purpose are present, Interface could invest and facilitate its employees more to develop other skills such as 1) the patience and the continuous drive to realize one's vision, 2) the commitment to truth and honesty as well as to continuously increase the accuracy of their view on the world and 3) to develop the professional skills to change certain issues as well as to chase and realize ideas they have. Moreover, though I cannot fully assert this conclusion, but it is likely that the third feature of a regular practice of 'inquiry into mental models' and hidden beliefs, is important especially among top-level management to ensure sufficient space for honesty, psychological-emotional safety and to minimize power games for engaged leadership despite the fact that in reality such fundamental transformation of management culture is difficult to realize. This would basically increase the level of human sustainability in terms of a personal commitment to truth, at least within top-level management. Besides developing concrete practices of 'dialogue and inquiry into mental models' can also reduce potential

organizational blind spots, such as habituation and less critical sharpness due to a predominant focus on success and positive achievements. Finally, the fourth feature of ‘team learning and reflection’ could prove to be very useful for Interface. This means that a practice of reflection, evaluation and combining insights as well as complementary qualities can certainly increase organizational performance in general and co-innovation capacity.

### 8.1.3. Phenomena of Interface’s BOC in relation to innovation (processes) for sustainability

It must be acknowledged that strategic alignment by the main executive board, that is the deliberate embedding of social and environmental issues into the company’s core business strategy is a prerequisite for the development of CSI. This also implies that BOC as such does not necessarily foster sustainability innovation to emerge. Thus only after the board of directors has decided to strategically align their company with socio-environmental concerns, will BOC start to play an important role in either fostering or possibly limiting sustainability innovation.

#### *Important BOC phenomena, type of innovations and global collaboration*

In my analysis I explained how Interface’s BOC phenomena strongly influences specific features and challenges of their innovation processes. It can be argued that innovative ideas can spark throughout the organization, because the espoused vision and mission are well integrated amongst others in the sense that actual shared values and ideals are commonly known and shared across departments and hierarchies (even though as explained above, office employees and departments do not tend to know what they can contribute within their daily work to the mission in terms of large-scale impact), that there is a strong symbolic discourse and there is a high level of innovation willingness. As mentioned in section 8.1.1, ‘stakeholder engagement’ as the first institutional element of Herrera Baltazar’s model, is also well embedded in the sense that external connections are certainly fostered, even though the creation of a larger community around Interface could still be more developed (2015). Entrepreneurial, creative individuals (i.e.: intrapreneurs) in the company also play a major role to spark innovation, because they link diverse (internal and external) people, projects and ideas. Autonomy is very important in the sense that there is ample space for local know-how and solutions and bottom-up ideas are always welcomed. Moreover initial sceptical beliefs changed through the persistent commitment of top management to the company’s strategic sustainability objective, the vision was clear and simple enough to be commonly understood despite inevitable varying interpretations and employees’ experience with positive business results have fostered (even more) innovation processes for sustainability.

The type of innovations is predominantly technical in nature with a focus on physical-environmental goals. Yet also other innovations related around services, people and organizational issues do occur at non-technical departments, precisely because of cultural phenomena such as ‘ideas are always welcome’ as well as ‘values and ideals are actually shared’. At the same time, especially the shared belief that sustainability innovation mostly constitutes physical-environmental or societal issues tends to limit the emergence of innovative projects for internal social sustainability.

Furthermore, the amount of global collaboration between countries/continents and the number of local innovations, both depend on how autonomous business divisions are. This means that the local decentralized character of the company and relatively little uniform centralized implementation of sustainability measures (i.e.: few explicit behavioural boundaries), have on the one hand fostered possibility for local innovations and solutions to emerge. On the other hand, up until now it has also led to little cross-fertilization and exchange of best practices between worldwide locations of Interface, which is partly the reason why the GI team was established approximately two years ago.

#### *Various interrelated challenges*

Even though innovation processes within the company certainly benefit from the open and non-judgmental culture, the fact that employees are content with a certain level of autonomy and the general willingness to assist each other (e.g.: little ‘dirty politics’ and mistrust among employees), the analysis also indicated that this not sufficient and that underneath ‘the tip of the iceberg’ there are several challenging issues. Firstly, the level of autonomy has become too high in the sense that departments are not sufficiently geared towards one another. This sometimes leads to ineffective internal horizontal communication and decision-making without taking into account the effects on other departments. These issues around horizontal communication and lack of collaboration are also related to the fact knowledge management needs improvement such as more exchange of ideas and current projects, ‘knowing how to find one another’, who is responsible and may have relevant information or know-how available. This implies that regarding the second institutional element of Herrera Baltazar’s model: ‘operational structure and processes’ certainly need improvement within the company (2015). Clearly structural support mechanisms are needed such as up to date and efficient daily communication and collaboration tools to develop more knowledge management and cross-departmental collaboration for sustainability innovation, to better and more efficiently streamline existing systems with

innovation projects and to internally connect employees across local departments and global levels. Besides more physical spaces to interact and exchange ideas, regular brainstorm sessions and practices to counter routinization, which are basically part of 'operational structure and processes', could also increase creative thinking and organizational innovation capacity (Auernhammer and Hall, 2014). Also a collective inquiry into the overall role and purpose of office departments in relation to Mission Zero can also positively influence the level of sustainability innovation and actual co-creation.

Secondly, another challenge is the generally high work pressure, which leaves little time for reflective evaluation for improvements, feedback loops and additional matters. As such this leads to various issues such as the fact that sustainability proposals are often not realized, less attention to the maintenance of existing capacities as well as potential improvements can be given and employees cannot always remain up to date with sustainability news. The fact that daily work is rather busy and that significant entrepreneurial effort is required, also influences the level of activities that employee ambassadors are willing to undertake and equally influences the fact that organizational leaders may feel reluctant to take up responsibility for issues beyond their primary tasks. Moreover it is likely that other cultural issues such as the dynamics of top management in terms of risk taking, 'rules of the game' and power relations also play a role. At the same time a core group of employees indeed is ambassador due to the fact that there are actually shared values and ideals and a strong symbolic discourse.

The abovementioned clearly indicates how much BOC influences CSI and related challenges. Hence BOC is a factor with significant influence on innovation processes for sustainability. What I have concluded so far is mostly related to my particular case study and actually answers my main research question. Yet on the basis of these conclusions, I will elaborate in the next paragraph 8.2 on the organizational cultural conditions that can foster innovation (processes) for general private sector sustainability.

#### 8.1.4 CSI in relation to international development concerns

In addition it can be concluded that corporate sustainability objectives such as the reduction or even elimination of environmental impact do not necessarily have to include international development concerns. It is unlikely that a company can neglect this entirely as corporates mostly tend to be associated with suppliers from developing countries and will thus inevitably come across local socio-environmental issues, communities and institutional contexts. However, a business organization can simply focus on sustainably improving internal operational production processes or demand suppliers in developing countries to implement measures, without engaging into broader forms of 'governance and society' (Herrera Baltazar, 2015) which means to include community development, educational services, local environmental issues, human rights or other issues within the international arena. Nevertheless, actual sustainability innovation requires strategic alignment of social and environmental issues into the business' core strategy. As such a company truly striving to innovate for sustainability will consequently have to contribute value to the broader society and environment, as this is basically part of its core strategy. Strategic alignment forces a company to think differently and innovate in terms of business models (i.e.: finding new ways of creating value both for the company, society and the environment), type of products, operational manufacturing processes, new partnerships and its supply chain. It is thus basically a driver for innovation and can also create opportunities for creating shared value. Besides strategic alignment is basically a business' objective of creating value for the broader society and environment (in Interface's vision this means to have a restorative contribution). This necessarily requires the inclusion of social-environmental concerns that especially for corporate firms are prevailing in relationship to their stakeholders such as suppliers and producers who are often located in developing countries and who are generally part of a broader context of local environmental issues, community empowerment and social deficits such as little access to services. Net-Works is an example, which illustrates that in such instances significant opportunities can emerge for both business organizations, low-income communities and the environment.

## § 8.2 GENERAL RECOMMENDATION FOR PRIVATE SECTOR SUSTAINABILITY

In this paragraph I aim to specify on the basis of the results and conclusions of my case study, what kind of organizational cultural conditions can foster business innovation (processes) for socioenvironmental sustainability. As such this paragraph is an attempt to elaborate upon the more general implications of my research findings for sustainable business change, which means to basically extract significant learnings from the findings of this case study. The ultimate question is how corporate firms can move towards sustainability innovation and what role BOC can play herein. My aim is not to formulate one standard operational model with steps that are generally applicable to any business organization. Rather I aim to combine the findings of this case study to formulate a coherent practical recommendation for sustainable business innovation. I neither

claim this recommendation to be exhaustive nor necessarily the only way to realize business sustainability, yet I do argue that the following plays an important role. As such I do claim that the following steps are potentially relevant for any business organization aiming to truly foster CSI and aiming to move beyond environmental compliance and 'doing-business-as-usual' with less environmental harm.

### 8.2.1 The long-term process of sustainability innovation

It is important to shortly touch upon the following before I will move to the specific BOC conditions that can foster CSI. My main research question was mainly related to how BOC influences sustainability innovation (processes). However, during the course of my research I was also able to retrieve significant data about the initial implementation stages and long-term process of sustainability innovation. This data overlaps with my research around the BOC conditions of my case study and is relevant for general private sector sustainability.

### STRATEGIC ALIGNMENT AND VISION & MISSION

- First of all, it is crucial for the corporate executive board to strategically align social and environmental issues into their core business strategy. The implementation of such overarching strategic approach is a precondition for CSI to emerge and for the BOC to play a role therein. This means that corporate decisionmakers need to make a deliberate choice to integrate a larger societal and environmental agenda into core business competences. This basically means to make a full organizational commitment to sustainability. A company can also decide to only formulate certain environmental objectives additional to their core business. However, much more innovation capacity for sustainability and even opportunities for creating shared value (CSV) will be fostered through strategic alignment. Opportunities for CSV indicate that strategic alignment is also important in order to include pressing global socioenvironmental issues that are prominent with the international field. This is indeed of particular relevance for corporate firms, as they tend to have operations in diverse institutional contexts, cultures as well as across communities and local environments.
- Formulate a vision and mission that is ambitious and daring in order to stimulate the necessity of innovation and of going beyond current frameworks of thinking that will enable fundamental change within the organization.
- The vision and mission also need to be easily understandable across organizational departments and hierarchies, so that all employees across departments and hierarchies have a clear understanding of the company's objective.

### IMPLEMENTATION AND THE LONG-TERM TECHNICAL PROCESSS OF CSI

- The executive board needs to commit and persistently hold on to its own formulated strategic objectives.
- Develop a system to measure and openly share results
- The technical principles and stages of sustainability innovation can be specified as 1) instead of compliance, formulating a bold vision from the start is possible, 2) focus on product and operational processes through amongst others LCA analysis, reducing resource material usage and increasing energy efficiency. Arguably, it is more effective to similarly as Interface formulate a vision around zero environmental impact, rather than a certain percentage of environmental impact reduction, 3) sharing knowledge and collaboration with others does not have to occur after stage 1 and 2 only, but can already be envisioned from the start, 4) redesign of business models is part of strategic alignment and can thus be envisioned from the start too, but in practice it is likely that such innovations will only emerge after 'picking the low-hanging fruit'. Nevertheless, this does not necessarily have to be the case, 5) a recurrent questioning of the status quo can foster new insights on possibilities for innovation (Nidumolu et al, 2009 including Interface case study). Moreover a business organization can aim to start with 'eco-efficiency and optimization', yet it is likely that 'eco-effectiveness and a redesign of systems' are required to become fully sustainable. It is important that a firm also takes into the account the fact that especially large-scale technical innovations are highly complex, always contain a degree of unpredictability and generally at least tend to take several years before they can be fully adopted. Thus reasonable financial risks need to be taken into account.
- As argued, it is mainly operational employees who carry out such technical principles in their daily working environment within the business organization and as such these stages are not isolated from BOC conditions.

### 8.2.2 Relevant BOC conditions for sustainability innovation

#### SHARED VALUES, NORMS AND PURPOSE

- The espoused vision will become a shared reality not only if the content is clear and easily understandable, but also if values and ideals become commonly internalized. Actual shared values and ideals are highly important to enable a coherent symbolic organizational discourse, or simply put: a commonly shared business story that binds people and creates meaning. Employees can gradually internalize values and

ideals if they are not forced or pressurized through strict centralized measures which is likely to create resistance, but rather if they are invited to relate sustainability values to their own lives and work (i.e.: create affinity and space for individual interpretation of the mission and what it means for one personally, instead of obligation), if they feel inspired (emotionally meaningful) and receive space to find their own solutions and if they consistently gain first-hand experience with actual beneficial results. Actual shared values and ideals are very important within the organization to foster sustainability innovation. Without this, employees will not feel sufficiently engaged or part of a larger purpose and may therefore be more reluctant which inevitably will impact the level of innovations.

- Actual shared values and ideals can only emerge if initial sceptical beliefs around sustainability are transformed by a consistent communication of improved results and successes, first-hand experiences of employees with such results and if top management keeps on strategically aligning sustainability to its core business strategy.
- Social friendliness, openness to each other's ideas and willingness to mutual assist to one another are important cultural conditions. Moreover these social norms also foster a level of employee fulfilment in the sense that people can feel at ease at work and that they are treated friendly with sufficient autonomy.
- Organizational practices that create a 'safe' space for employees to critically reflect, to keep on questioning and point out organizational weaknesses are important.
- Experimentation and a reasonable level of risk taking within the company culture are also a prerequisite for innovation.
- Non-technical departments should have clarity their exact role and purpose in terms of sustainability innovation within the larger organization. This is necessary, because if non-technical experts or rather office employees also think along and are occupied with sustainability, other types of innovations can emerge that may not directly impact physical-environmental sustainability, but which are still valuable for instance in terms of new business models and services, valuable partnerships or internal organizational improvements.
- Engage other stakeholders through collaboration, but even share knowledge freely, inspire and aim to be a daring frontrunner to transform the entire industry. Sharing knowledge freely enhances the chance to come across new ideas, opportunities and potential partners. An external web of diverse linkages is similar as in nature, important for success and is more beneficial for CIS than a high level of isolated business confidentiality.
- It is also important that beliefs around sustainability innovation broaden to not only include physical and social-environmental objectives, but possibly also internal social sustainability goals such as better internal knowledge management and cross-fertilization. This can foster other types of innovation, namely more people and organizational oriented, which can on its turn also generate more ideas and opportunities for physical or social-environmental sustainability.

## EMPLOYEE ENGAGEMENT

- Regarding employee engagement for sustainability innovation, employee acknowledgment and career development as well as the general level of feeling listened to by top management leaders are important, but are most likely not crucial. Obviously this does not mean that it would not matter for sustainability innovation if top leadership never provides timely feedback on addressed issues or that employees feel structurally undervalued. This would certainly impact employee engagement for sustainability innovation. However employee fulfilment in terms of a) sufficient autonomy instead of being stifled by procedures, b) a social and friendly working environment, c) opportunities for learning and above all meaning to their work (i.e.: being able to do the work that they like) and d) a strong symbolic discourse that binds individual employees (i.e.: common purpose, pride and additional motivation to work) are more important for sustainability innovation than for example individual career development or top management leadership that is not always timely with feedback.
- Deliberately invest in highly driven employees through facilitative structures, regular meetings and offering them additional trainings.
- Communication about current sustainability projects and providing a basic training on sustainability are important to foster employee engagement.

## INTRAPRENEURS AND DIVERSITY OF EMPLOYEES

- Entrepreneurial skills and a self-reliant attitude amongst employees are important in order to foster the emergence of local ideas and projects. Hence a strong organizational commitment to entrepreneurial values and behaviour can increase sustainability innovation. However a balance needs to be sought between the required organizational level of entrepreneurial skills and consequently the amount of personal time and effort that are required to realize such ideas.

- Diversity in terms of employees is also beneficial for CSI. This means that besides highly technical experts and employees who are very capable operationally, it is beneficial to recruit creative employees as well with entrepreneurial skills. Such individuals can more easily connect ideas as well as different internal and external clients and parties, they are proactive to learn and figure issues out for themselves, they are aware of emerging trends, can easily kick-start projects and can identify opportunities for innovation, new alliances and initiatives.

## ORGANIZATIONAL STRUCTURE AND SUPPORT MECHANISMS

- Guidelines and facilitative structures for sustainability innovation can be structurally implemented and managed (e.g.: performance structure, office workspaces for brainstorm sessions, programs that formulate teams of technical experts, or obligatory waste separation). This is important, because otherwise employees may feel lost about what to do or not sufficiently met in their needs for facilitation. Consequently this can limit freeing the entire organizational human capacity. Nevertheless a degree of 'uncharted space' remains absolutely important. This means that too much centralization in terms of standard procedures and single models for decision-making regarding innovative projects is not recommendable. In fact, 'innovation processes' cannot be logically formulated and implemented, but are often a result of chance, networks between people, information gathering, unexpected opportunities and locally encountered problems. Centralized procedures and uniform models will maximize control, but minimize (local) learning potential.
- Decentralization will foster autonomy of business divisions, departments and individual employees, which gives space for local solutions to emerge. However too much autonomy of business divisions and local departments can lead to too little cross-fertilization, valuable knowledge exchange and a lack of real collaboration. Instead a structured step-by-step guidance of new systems and (virtual) sharing platforms as well as effectively keeping daily communication tools up to date, cannot only increase efficiency, but also knowledge management, internal connections and collaboration capacities for innovation despite vertical organizational structures (i.e.: create an internal network). In fact, effective cross-departmental dissemination and exchange of ideas, expertise and knowledge around individual responsibilities and tacit know-how between employees can generate many hidden possibilities for innovation, mutual assistance and insights on how to tackle common issues. However it must be taken into account that technical physical-environmental innovations also require a certain level of expertise and that brainstorm sessions need to be facilitated very well in order to move beyond 'global, general ideas'.
- Tools and institutions to facilitate cross-fertilization of innovative solutions, best practices and new ideas between various business locations across the globe can also greatly enhance learning potential and innovation capacity.
- Time is a very important resource. This is because a high work and time pressure, tends to negatively impact employee engagement for sustainability innovation. A performance structure for employees who are actually committed to sustainability and who truly want to contribute could be a solution.

## LEADERSHIP

- It is important that top leaders within the organization are actually leading proactively. This not only means persistently expressing their sustainability vision and consistently aligning this with core business strategy, but also to be willing to address issues that are beyond primary tasks, to strategically collaborate and demand for solutions higher within the organization that would further sustainability innovation (i.e.: internal leadership backing and facilitative support). It must be acknowledged that this is not necessarily easy, because individual agenda's, interests and power relations are almost always present within corporate environments.

## HABITUATION AND HUMAN SUSTAINABILITY

- Routinization and habituation, or rather less critical questioning and acceptance of issues that require change are likely common in business organizations. Besides many collective hidden beliefs and assumptions actually impact how a BOC and consequently its sustainability innovation processes function. It is because of these two reasons that regular practices such as reflective dialogues and space for critical questioning are important to prevent organizational blind spots. Finally in terms of human sustainability within the organization, it is especially important for top-level management to develop a commitment to personal truth not only in order to foster sufficient safety and honesty, but arguably also because there is an ethical need for reflexive business management within many corporate cultures (Smircich, 1983). A commitment to personal truth and reflexive business management, can ultimately inform truly engaged leadership for CSI and a sense of purpose beyond corporate power games.

## ANNEX I: OVERVIEW OF RESPONDENTS, FUNCTION AND DEPARTMENT

Description department/function	Number of Respondents and gender
1. After-sales	1 (male)
2. Credit management	2 (male and female)
3. Customer support service	1 (male)
4. Design	2 (male and female)
Distribution and logistics	-
Engineering	-
5. Finance and financial control EMEA	4 (males)
6. HR	1 (female)
7. Intercell	1 (male)
8. IT	2 (males)
9. Laboratory	2 (males)
10. Marketing	5 (2 males; 3 females)
11. Planning	2 (males)
12. Product and process innovation	1 (male)
Product development	-
13. Production	4 (males)
14. Reception desk	2 (females)
15. Sales	4 (3 males; 1 female)
16. Technical service and maintenance	1 (male)
17. Travel	1 (female)
<b>OTHER</b>	
Cross-departmental: manager of sustainable development	1 (female)
External: alumnus Interface	1 (female)
European level: European director of sustainability	1 (male)
<b>Operational employees: 28 (Senior) managers: 10 Alumni: 1 Directors: 1</b>	<b>Total number: 40</b>

- The main tasks are technical maintenance and customer service to support sales employees. If customers have questions about the technical specifications of products, installation methods, which products are most suitable in specific environments or if they want to address complaints, they will be directed to after-sales.
- The main tasks are financial risk management in terms of evaluating whether customers are creditworthy, ensuring that invoices are paid and the collection of claims.
- Support to the sales forces in terms of processing customer questions and related problems for several specific provinces in The Netherlands. Delivery problems, supply requests and project management are part of the main and varied tasks of customer support.
- Design of a floor concept for a specific space with existing products or tailor-made carpet tiles. Contactpersons between architects, sales employees, end customers and the installer. Team members are located in various European countries. Advising customers about the latest trends and visits to design fairs to present and network are also part of the main tasks. Other team members have supportive functions in terms of executing floor plans, making presentations and 3D visuals for customers.
- Finance: timely preparation and processing of invoices that the company needs to pay and balance sheet accounts to administrate the monthly financial results. Financial control EMEA: consolidating all financial results and management reports of Europe, Asia and Africa and accountability towards external accountants whereafter the report is send to the U.S. head office. These reports are needed for the Dutch Chamber of Commerce, tax authorities and for quarterly reporting to shareholders. This data is also needed to determine where to invest and in which areas financial costs are too high.
- Provision of terms of employment, recruitment policy and process after leaving the company. Member of the European operations management team. The two production plants, one in The Netherlands and one in Northern Ireland are part of operations. In other European countries there are no operations, but only sales/marketing, finance and customer support.
- Product and technical development of the product: Intercell.
- Responsibilities include maintaining the IT network of Interface Europe and of other European showrooms. Also responsible for several projects such as the replacement of certain network components, the installation of EHP systems and checking the performance or solving encountered troubles within the European virtual network that is connected to the Dutch location of Interface in Scherpenzeel (1). Responsibilities include ensuring that all laptops and telephones operating in Europe are maintained, up to date or fixed when encountering issues (2).
- For the entire division of EMEA: incoming materials inspection, testing resource materials and end products. Informing PPI and production about the results. Support to product development: testing industrial runs and reporting. Guaranteeing the quality of the carpet before it is launched into the market with consent from the European director of production, the PPI department and the manager of Qesh.
- Various responsibilities and tasks, which amongst others include central marketings tasks, but also advertisement and digital marketing such as social media and websites for the Benelux only (1). The Warehouse coordination and arranging all marketing events at Interface, Scherpenzeel. This includes orders, maintenance and generating external events. Also visits to fairs and congresses to promote Interface (2). Marketing tasks (e.g.: advertisement, digital) for

Russia, Turkey, the Middle East, Egypt and Africa (3). Internal communication and copywriting for EMEA: website, brochures and press releases (4). Sales coordination, telemarketing and project management for local marketing initiatives, lectures, projects and events at amongst others schools and relevant platforms (5).

- 11.** Coordination of production: ordering resource materials such as yarn, coordination of supply of materials and stock/availability of end products. Contact person for customer service in terms of providing information about production and delivery time.
- 12.** Research, testing, prototyping, visiting conferences and project management of product and material innovations.
- 13.** Responsibilities include managing several team leaders, process optimization, evaluation and documentation, ensuring that components are recycled and that production is optimal, communication between planning and production (1). Responsibilities include managing the backing line of carpets, managing several team leaders, managing improvement projects and technical disturbances (2). Coordination of technical materials (3). Production line execution (4).
- 14.** Receiving and handing out badges to visitors, answering and forwarding phone calls, sorting and distributing post and other related administrative tasks.
- 15.** Sales of various regions in The Netherlands: contact with architects, potential customers and developers. Main tasks are acquisition and sales promotion.
- 16.** The main tasks are managing several team leaders, electrotechnical support, process technician and mechanic, technical storage procurement and managing technical innovation budget and actual innovation projects within the production plant.
- 17.** After consent by the executive European board of directors, employees may travel for sales meetings, conferences, fairs and European management meetings. Arranging of air transport, train tickets, taxis and logistics of (international) journeys of EMEA employees as well as booking meeting spaces and appropriate hotels.



## ANNEX II: TOPIC LIST SEMI-STRUCTURED INTERVIEWS

*This topic list gives an overview of the interview guide for this case study research. It was not possible to discuss all topics in every interview. Frequently questions around related topics were asked or questions that would assist the interviewee to deepen and elaborate his or her response, depending on the development of the interview.*

- i. **INTRODUCTION**  
 Basic information about the researcher; the main research topics; importance of subjective interpretation and personal viewpoints  
 Information about the principles of confidentiality and expression of gratitude time/effort  
 Respondents' name, gender and approximate age
- ii. **PROFESSIONAL FUNCTION AND DEPARTMENT**  
 Respondents' function, main tasks and departmental information
- iii. **AWARENESS AND BUSINESS VALUES**  
 Company's vision and mission on sustainability  
 Personal opinion about Mission Zero  
 Communication and measurement of the vision and mission on sustainability  
 3 words to characterize Interface and explain
- iv. **EMPLOYEE ENGAGEMENT**  
 Personal drive and meaning to work for a company like Interface  
 Individual contribution to Mission Zero and of colleagues within the organization  
 General office activities, practices and regulations related to Mission Zero
- v. **GENERAL COMMUNICATION AND COLLABORATION**  
 Views and personal experiences around the level of amongst others:
  1. *Sharing knowledge with others, inspiring and connecting parties [external]*
  2. *Formal vertical communication and information sharing [internal]*
  3. *Level of horizontal communication, effective appointments and information updates between departments [internal]*
  4. *Tools, platforms and documentation*
  5. *Collaboration across teams and departments*
  6. *Relation to and collaboration with other business divisions and Interface locations around the world*
- vi. **EMPLOYEE RELATIONS AND SATISFACTION**  
 Views and personal experiences around:
  1. *Atmosphere within the company*
  2. *Social relations and interaction among colleagues*
  3. *Meaning of work and fulfilment*
  4. *Feeling acknowledged by the organization, seen and valued*
  5. *Concrete programs, trainings and career development*
- vii. **LEADERSHIP**  
 Views and personal experiences around:
  1. *Relation to direct supervisors, middle-level managers and CEOs.*
  2. *Role modelling of organizational leaders for Mission Zero*
  3. *Space to give feedback and opinion*
- viii. **INNOVATION CULTURE**  
 Describe processes and results (e.g.: where does it begin, who is responsible for projects and makes decisions, assistance and team work, which skills needed, type of innovations)  
 Organizational resources and structural institutions to foster innovation  
 Level of risk taking, change and experimentation within the company  
 Concrete examples of innovative projects, partnerships and initiatives  
 Experienced benefits and challenges
- ix. **RECOMMENDATION**  
 Points for improvement on the basis of the aforementioned answers and viewpoints given

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