



**UNIVERSITY OF GOTHENBURG**  
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Master Degree Project in International Business and Trade

## **Integrating Environmental Sustainability into Strategy**

How headquarters-subsidary dynamics shape the integration across locally  
embedded subsidiaries

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# ABSTRACT

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Environmental sustainability has gained increased attention among corporations and stakeholders. Recently, proactive companies have started to integrate environmental sustainability into strategy by accumulating products with enhanced environmental performance in ‘environmental portfolios’. Even though in research environmental portfolios have been presented as a successful way to integrate environmental sustainability into strategy, there are few, if any, empirical studies. By performing a case study based on a Swedish industrial corporation’s environmental portfolio, this thesis starts to fill this research gap. Thus, this research contributes to both the literature about environmental portfolios and the more general literature about the integration of sustainability into strategy. In sharp contrast to the claims in conceptual papers, this research shows that environmental portfolios have limited impact on operations and are therefore no fast means to integrate environmental sustainability into strategy. This is due to a conflict of interest between the multinational corporation’s (MNC) headquarters (HQ) and subsidiaries. In such situations HQ has difficulties overcoming subsidiaries’ local embeddedness. In other words, when subsidiary managers experience a squeeze between HQ demands to integrate environmental sustainability and market demands, subsidiary managers prioritise market demands, at least in this case study and at this point in an on-going process. Thereby, this research contributes by linking the literature fields of *Sustainability* and *International Business* by showing how HQ-subsidary dynamics shape the integration of environmental sustainability into strategy. The study also contributes to *International Business* literature by suggesting that when integrating environmental sustainability into strategy, the HQ role shifts between brain and puppet on a string as a result of organisational and external conditions.

**Key words:** environmental portfolio, environmental sustainability, the *MECH Group*, *Positive Impact*, network MNC, subsidiary dual embeddedness, headquarters (HQ), subsidiary, dynamics, middle management squeeze.

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# ABBREVIATIONS

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B2B	Business to Business
BA1	Business Area One
BA2	Business Area Two
HQ	Headquarters
LCA	Life-cycle assessment
MNC	Multinational Corporation
MNE	Multinational Enterprise
NGO	Non-Governmental Organisation
R&D	Research and Development
WWF	World Wildlife Fund

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# 1 INTRODUCTION

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*This chapter begins with a background to environmental sustainability and the increased focus on MNCs to take responsibility. It follows a problem discussion, which highlights what inspired this research, namely challenges related to integrating environmental sustainability into strategy and the lack of empirical studies in this field. This leads to the purpose and the research question, and lastly, delimitations and research outline are presented.*

## 1.1 Background

Environmental problems are some of the main challenges this generation faces. The public and policy debate concerning the implications of these challenges emerged during the 1980s, resulting in the Earth Summit in Rio de Janeiro in 1992 and the Kyoto protocol in 1997 (Kolk & Pinske, 2004). However, international climate treaties lack full support by all countries and so far, no global agreement has been reached (Dyllick & Hockerts, 2002). The absence of efficient global policy making has led stakeholders, such as non-governmental organisations (NGO) to shift their focus towards companies and emphasise companies' responsibility to contribute to a sustainable future (Esty & Winston, 2006). For example, the World Wildlife Fund (WWF) believes that the business community plays a crucial role in reaching the UN's Sustainable Development Goals<sup>1</sup> set beyond 2015 (WWF-UK, 2013). Alongside pressure from NGOs, expectations put forward by society on businesses have forced businesses to change their behaviour. A firm's neglect or abuse of the environment today can turn out to be the end of operations. As stakeholders' and other actors' concern for the environment is growing, it becomes impossible to turn a blind eye (Esty & Winston, 2006).

The challenges related to sustainable development, including economic, social and environmental concerns, impact every firm's strategy and business model (Porter & Reinhardt, 2007). While engaging in sustainable development is sometimes seen as a burden and outside the responsibility scope of the company (cf. Friedman, 1970), many companies today argue that environmental challenges can help companies to identify strategies and practices that give them a competitive advantage (Hart & Milstein, 2003). Hence, benefits from sustainable actions can be substantial even from a business perspective, leading to a win-win situation instead of a trade-off between making a profit and caring for the environment. It is, for example,

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<sup>1</sup> The UN's Sustainable Development Goals are a result of the 2012 Rio+20 Conference on Sustainable Development that initiated the process of linking sustainable development to the Millennium Development Goals beyond 2015 (UN Department of Social and Economic Affairs, 2014) by establishing a set of 'action oriented, concise and easy to communicate' goals (UN Department of Social and Economic Affairs, 2013).

argued that companies which have taken these concerns to heart and become green may reap benefits of higher revenues, lower operational costs, and lower lending rates from banks due to reduced risk with carefully constructed environmental management systems. In addition, soft benefits can exist such as an innovative culture, leading to enhanced intangible values, credibility and brand trust (Esty & Winston, 2006).

Today, sustainability frontrunners' aim is to decouple business growth from increasing environmental and social damage, eliminate the negative impact resulting from their operations, or strive to generate net-positive impacts. Some companies have made it their mission to go even further by innovating new resilient ways of running their operations and exploiting new opportunities regarding solutions that tackle environmental issues such as pollution, congestion and resource scarcity (WWF-UK, 2013).

## 1.2 Problem discussion

As a result of companies being made responsible for sustainable development, the corporate discussion has turned towards the question of how to integrate environmental sustainability into strategy in order to become more competitive. For example, innovation and promotion of products with enhanced environmental performance have been identified in many industries as a way of connecting environmental sustainability and strategy (Hart & Milstein, 2003).

One example of the pursue to integrate environmental sustainability into strategy is to bring products with enhanced environmental performance together in an 'environmental portfolio'<sup>2</sup> (*Company A*, 2010; *MECH Group*, 2012a; *Company C*, 2012; *Company B*, 2013). This is a relatively new approach only adopted by a few companies, which mostly operate within heavy industry business to business (B2B). Research has put forward environmental portfolios as a successful example for how to seize the opportunity of coupling strategy and environmental sustainability (cf. Savitz & Weber, 2007; Crittenden, Crittenden, Pinney & Pitt, 2011).

Even though environmental portfolios are an upcoming phenomenon among companies as a means to integrate environmental sustainability into strategy, and have been presented by re-

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<sup>2</sup> In the case at hand, the term 'portfolio' is not referring to the dispersion of risk returns, as it is most commonly used within finance (Markowitz, 1952). Instead, based on the descriptions by companies with environmental portfolios (see Appendix 1), in this thesis environmental portfolios are defined as: "A group of products which, compared to a baseline product and based on a life-cycle assessment (LCA), have significant and measurable environmental benefits for the customer that satisfy predefined criteria." Often, there are goals connected to environmental portfolios, which are communicated externally (*MECH Group*, 2012b & c; *Company B*, 2013; *Company A*, 2014).

searchers as being successful (e.g. Savitz & Weber, 2007; Crittenden et al., 2011), there are only few, if any, empirical studies of environmental portfolios. Such studies are important, since it is in practice, rather than in theory, that environmental portfolios must connect environmental sustainability and strategy. Thus, without empirical studies it is not possible to evaluate the merits of environmental portfolios. Furthermore, it is through empirical studies that the challenges faced by companies working with environmental portfolios can be identified and analysed. Studies of environmental portfolios also provide a way to address the more general lack of empirical studies of sustainability and strategy. While numerous authors have called for more substantial empirical research about sustainability and strategy (e.g. Rosén, 2011; Egels-Zandén & Rosén, 2014), few such studies are currently available.

When studying the integration of environmental sustainability into strategy, a central topic is HQ-subsidary dynamics. Due to the nature of environmental sustainability, which is long-term, vague and related to the corporate brand (cf. Esty & Winston, 2006), it is the corporate HQ that pushes environmental sustainability onto the organisation through policy documents and communicated targets. In the differentiated network MNC with multiple power centers (Hedlund, 1986; Ghoshal & Bartlett, 1990; Forsgren, 1990; Forsgren & Pahlberg, 1992; Ciabuschi, Dellestrand & Holm, 2012a) this HQ push can create dilemmas. This is due to the fact that subsidiaries are embedded in their local environments, hence, subsidiary management faces opposing requirements: on the one hand, responding to the market and on the other hand, complying with HQ strategy (Ghoshal & Bartlett, 1990; Forsgren, 1990; Forsgren & Pahlberg, 1992; Andersson & Forsgren, 1996; Forsgren, Holm & Johansson, 2005; Ciabuschi, Dellestrand, Martín Martín, 2011a; Ciabuschi, Holm & Martin Martin, 2014). More specifically, subsidiary management is pulled in different directions, as it is pressured to integrate environmental sustainability and simultaneously increase sales, cut costs and increase profit margins. These goals are often conflicting and in the end, performance reviews mostly focus on the company's sales and profit margins instead of environmental sustainability (Esty & Winston, 2006). As a result, local ownership has proven difficult with regards to environmental sustainability (cf. Esty & Winston, 2006).

### **1.3 Purpose and research question**

From the discussion above, it becomes apparent that there is a need for more empirical studies of both the integration of environmental sustainability into strategy and environmental portfolios. Given the likely prominence of HQ-subsidary dynamics in the integration of environmental sustainability into strategy more generally and environmental portfolios more particu-

larly, a study of environmental portfolios can start to address the lack of research about the connection between environmental sustainability and HQ-subsidary dynamics (cf. Goodall, 2008). Moreover, such study can also contribute to the academic field of *International Business* and the discussion of socially constructed HQ-subsidary dynamics that is not fully explored (cf. Geppert & Dörrenbächer, 2014). Thus, by conducting this empirical study of strategy and environmental sustainability, illustrated by an environmental portfolio in an MNC, the discussion about environmental sustainability can be reframed in terms of HQ-subsidary dynamics. The purpose of this study is therefore to analyse how MNCs integrate environmental sustainability into strategy across dispersed subsidiary units with an environmental portfolio approach. This leads to the following research question:

*“How do HQ-subsidary dynamics shape the integration of environmental sustainability into strategy?”*

## **1.4 Delimitations**

This study focuses on a Swedish MNC and due to the close collaboration with representatives at the HQ the viewpoint on environmental sustainability taken is biased towards a Swedish/European perception. Therefore, due to the limited sample of 18 respondents based in Europe it may be difficult to generalise the findings to other geographical regions. For example, in Asia in general there is a different view on the environment and conducting the study there would most likely result in different interpretations. Moreover, it is important to note that this study is based on data from respondents, who presented already existing products for inclusion in the portfolio. In other words, these specific products have been developed before the environmental portfolio was implemented. Yet, the respondents are also involved in new innovation activities that have been addressed during interviews.

Furthermore, sustainability is only taken into consideration in terms of the environment, disregarding social and economic factors. This is due to the fact that the portfolio focuses on environmental sustainability with a link to business performance. By focusing on this environmental sustainability strategy instead of an entire corporate sustainability program this study gives a more comprehensive analysis. Nevertheless, neither does this study provide a concrete solution to environmental sustainability nor an answer to how to manage environmental portfolios in terms of methodology such as calculations and criteria. Instead, this study is concerned with how to integrate environmental sustainability throughout the MNC, having limited amounts of central resources.

Lastly, it should be noted that the reliability of this study could be questioned due to its time-specificity. Since the approach taken by the MNC is rather new, one can expect that when conducting this research at a later point in time one will find different results. When the portfolio becomes more mature, respondents' reasoning about it is likely to change: As more product development projects evolve within the environmental portfolio, respondents may perceive the portfolio's impact on innovation differently.

## **1.5 Research outline**

### Theoretical background

The theoretical background starts off with describing what is conceptualised as HQ and subsidiaries and the assigned roles this brings about. Further, the implications of the MNC being an interorganisational network and subsidiaries being embedded in local environments are reviewed to show how conflicting requirements impact subsidiary management and their identification with the corporate strategy. The chapter is brought to an end with a figure illustrating the conceptual framework and the resulting subsidiary management squeeze.

### Methodology

The methodology chapter describes how this single case study was performed. Due to the limited amount of empirical studies about environmental portfolios the researchers primarily based the study on primary data collected through 20 interviews. The chapter rounds off with a discussion about validity and reliability.

### Background to the *MECH Group*

In this chapter a background to the *MECH Group* is presented as well as a discussion on how to understand the company as an interorganisational network. It follows a description and definitions of the different *MECH Group's* HQ and subsidiary units.

### Empirical findings

The empirical findings start off by telling the story of the *MECH Group's* environmental portfolio, followed by a discussion about HQ management push and the transition to local ownership. Further, this chapter presents the reasoning behind as well as the practical implications of local ownership and provides a discussion about the differences in implementing environmental sustainability in the business areas. The chapter rounds off by highlighting recent developments and changing attitudes.

### Analysis

In this chapter the empirical findings are analysed using the conceptual framework. Concepts such as the MNC as interorganisational network and subsidiary dual embeddedness, which can lead to a subsidiary management squeeze are applied to the *MECH Group*. These findings are used for framing an answer to the research question.

### Conclusion

This thesis rounds off with discussing how HQ-subsubsidiary dynamics shape the integration of environmental sustainability across dispersed and locally embedded subsidiaries based on the findings presented in the analysis. Further, contributions to research are highlighted. The chapter closes with a discussion of implications for management as well as recommendations for future research.

## 2 THEORETICAL BACKGROUND

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*The theoretical background provides the reader with definitions of HQ and subsidiary, followed by a description of how internal and external embeddedness impact the relationship between these units. This literature is the base for the conceptual framework, which is presented in a model in the end of this chapter.*

### **2.1 Changing dynamics of HQ and subsidiary**

The MNC consists of a HQ and dispersed subsidiaries located around the world. To begin with, HQ is described as a function assigned with formal responsibility for coordinating activities in the form of strategic planning, administration and monitoring (Dellestrand, 2011). Different types of HQ can exist within an MNC, such as corporate HQ, divisional HQ, functional HQ and regional HQ. These HQ differ in terms of responsibility area and operational focus (Ciabuschi et al., 2012a). As an example, regional HQ are defined as “units purposefully established within the MNC to steer national subsidiaries within a region” (Mahnke, Ambos, Nell & Hobdari, 2012:293), whereas divisional HQ are describes as “[...] distinct unit[s] with a specific operational responsibility for specific units without overall MNE responsibility” (Dellestrand, 2011:230). There are a number of different functions performed by HQ, and in relation to innovation transfer the most common functions are to identify needs within the organisation, to satisfy these needs with matching resources, and to facilitate resource allocation within the MNC network (Dellestrand, 2011).

Subsidiaries have historically been described as market-seeking units with the main purpose to locally adapt products developed in the MNC’s home country (Cantwell & Mudambi, 2005; Birkinshaw, Hood & Young, 2005). More specifically, subsidiaries have been described as operational units controlled by the MNC, which are situated outside the home country (Birkinshaw, 1997). As the subsidiaries’ role was mainly to exploit HQ competences, they remained dependent on HQ knowledge. However, in recent years, MNC subsidiaries have gained a more active role (Cantwell & Mudambi, 2005; Birkinshaw et al., 2005; Bouquet & Birkinshaw, 2008), even with regards to R&D, and their mandate has become to develop technologies based on the specific locational advantages of the subsidiary host country. Some subsidiaries may even evolve as regional or global providers of MNC technologies (Cantwell & Mudambi, 2005; Birkinshaw et al., 2005) and develop into centres of excellence with “a set of capabilities that has been explicitly recognised by the firm as an important source of value creation” (Frost, Birkinshaw & Ensign, 2002:997). In general, one can distinguish between three types of subsidiary: (1) units adapting products to local market needs, (2) units

exploiting MNC technologies on a global basis, and (3) units augmenting and creating new technologies abroad (Rabbiosi, 2011).

Alongside changing dynamics of HQ and subsidiary, the MNC has been conceptualised in different ways. Traditionally, it has often been described as hierarchical centre periphery structure with the HQ controlling resources and implementing strategies. However, it is argued that the traditional hierarchical picture of MNCs should be replaced as the MNC's situation has become more complex with geographically dispersed and interdependent power centers (Hedlund, 1986; Forsgren, 1990; Forsgren & Pahlberg, 1992; Malnight, 1995; Ciabuschi et al., 2012a). Thus, the MNC has been conceptualised as an interorganisational network, which operates in multiple external environments (Ghoshal & Bartlett, 1990). These environments consist of, for example, other organisations, customers, suppliers and regulators and are sometimes referred to as subsidiaries' 'industrial networks'. All of these different actors in the industrial network are linked via exchanges of physical resources or knowledge, thereby influencing and putting pressure on each of the MNCs subsidiaries (Ghoshal & Bartlett, 1990; Forsgren 1990; Andersson & Forsgren, 1996). In addition, in an interorganisational network subsidiaries are conceptualised as semiautonomous actors, which operate within certain constraints with their own distinct environments and resources and are capable of making strategic moves (Bouquet & Birkinshaw, 2008). Thus, subsidiaries develop objectives, control powerful resources (Forsgren, 1990) and have different roles in the MNC. Therefore, the relationship between subsidiary and HQ can vary from subsidiary to subsidiary (Ciabuschi et al., 2012a) and consequently, coordination has to be differentiated to fit the context of each subsidiary (Ghoshal & Bartlett, 1990).

## **2.2 The role of HQ in the network MNC**

As a result of the MNC being an interorganisational network embedded in multiple external environments (Ghoshal & Bartlett, 1990), the role of HQ is not as straightforward as one might expect. The role of HQ, depending on subsidiary power, has been discussed as either a puppet on a string controlled by powerful subsidiaries or the brain controlling the organisation (Ciabuschi, Forsgren & Martín Martín, 2012b). In other words, HQ can be more or less powerful depending on subsidiaries' degree of involvement in the network, interdependencies with units within and outside the firm and resource interdependence (Forsgren & Pahlberg, 1992). As HQ's aim is to operate efficiently in unfamiliar environments and to compensate for the potential knowledge disadvantage, research is pointing towards increasing importance of regional management within the MNC (Dellestand, 2011; Mahnke et al., 2012). Thus, Cia-



buschi, Dellstrand & Holm (2012a) argue that it is necessary in complex situations to determine what the managerial role of the HQ is at different corporate levels.

Moreover, it is important to determine when and how HQ interventions at subsidiary level add to or destroy value creation in the MNC (Ciabuschi et al., 2011a; Ciabuschi et al., 2012a). Indeed, interventions by HQ can be counter productive (Ciabuschi et al., 2011b) and being part of a network MNC in a dynamic environment gives rise to more occasions where HQ can potentially harm and demotivate subsidiaries by intervening (Foss, Foss & Nell, 2012). Hence, HQ must acquire legitimacy and be willing to exert formal control in order to be able to influence its subsidiaries (Forsgren, 1990; Forsgren et al., 2005). Legitimacy can for example be acquired by symbolic behaviour such as usage of ‘spectacular’ decisions to show the organisation that HQ takes initiative and runs the show (Forsgren, 1990). Besides, in order for HQ to be able to influence subsidiaries’ activities, it is crucial for HQ to understand subsidiaries’ external environment, obtain knowledge by getting involved in subsidiary level activities and identify important actors participating and influencing subsidiaries. The more HQ knows the greater its possibility of exerting control becomes (Forsgren et al., 2005; Ciabuschi et al., 2012a). Yet, the possibility to use different control mechanisms is also dependent upon to what degree subsidiaries are linked to the surrounding environment (Andersson & Forsgren, 1996). In terms of the innovation process the relevant expertise is often rooted in subsidiary’s local knowledge rather than HQ knowledge (Ciabuschi et al., 2012b). Thus, maintaining knowledge flows within the organisation is important and shared values as well as administrative devices are tools for doing so (Andersson, 2003).

### **2.3 The role of subsidiary initiatives in the network MNC**

The network structure of the MNC yields favourable conditions for subsidiary initiatives by providing an environment where it is possible to build relationships laterally, horizontally and with external partners (Birkinshaw, 1998). By encouraging subsidiary initiative taking, the MNC gains from the exploitation of its dispersed capabilities (Delany, 2000). Subsidiary initiative is described as a proactive, autonomous and risk-taking activity initiated by actors in subsidiaries outside the home country of the MNC (Birkinshaw, 1997; Schmid, Dzedek & Lahrer, 2013). A subsidiary initiative can be externally-oriented, for example identifying a new customer need, supplier or establish new alliances, or internally-oriented, for example identifying ways to make the MNC network work more efficiently (Birkinshaw, 1998). Conditions such as specialised resources, high autonomy, normative integration, subsidiary-HQ communication, and interunit communication have been identified to facilitate the local initia-

tive creation process (Birkinshaw, 1997). According to De Clercq, Castañer and Belaustegui-gotia (2011), when an initiative is perceived to have significant impact on the performance of the MNC or to be a solution to a problem this initiative is pushed for by the proponent. Moreover, how much an initiative is being pushed for is dependent upon the extent to which the proponent anticipates rewards for the work and progress. Informal rewards such as visibility and recognition are most beneficial in terms of stimulating the pushing forward of initiatives. Further, when being more satisfied with the current organisational situation, the proponent's effort to push for the initiative is found to be higher, while less satisfied members are more reluctant towards engaging in voluntary strategy-enhancing behaviour (De Clercq et al., 2011).

## **2.4 Subsidiary dual embeddedness**

In order to nurture subsidiary initiatives and innovation it is important to consider subsidiaries embeddedness (Ciabuschi et al., 2014). Embeddedness is defined as relationships with high degree of mutual and long-term adaptations in terms of relation-specific investments (Forsgren et al., 2005) and the basic idea is that actors with strong ties can learn more easily from each other and are more willing to do so (Ciabuschi et al., 2011a). Thus, embeddedness is path dependent, develops over time and builds upon prior knowledge (Andersson, Forsgren & Pedersen, 2001; Forsgren et al., 2005). As a result, the more embedded the subsidiary becomes in the environment, the more it will be influenced by it (Andersson & Forsgren, 1996; Dellestrand, 2011). Yet, subsidiaries are embedded in an external local environment and an internal corporate environment (Ghoshal & Bartlett, 1990; Forsgren, 1990; Ciabuschi et al., 2011a; Ciabuschi, Holm & Martin Martin, 2014), which are complementary contexts, even though they affect the subsidiary in different ways.

External embeddedness in the subsidiary's local network is essential for gaining knowledge and developing competencies and hence, the base for creating a competitive advantage (Ciabuschi et al., 2012a). More specifically, it has been shown that external embeddedness has a direct effect on the subsidiary's innovation-related performance (Ciabuschi et al., 2014). For example, technological developments often result from interactions with the external environment (Andersson & Pahlberg, 1997). The close relationships with external actors are important catalysts for interorganisational learning (Andersson et al., 2001), and development of new products and processes (Andersson & Pahlberg, 1997). Internal embeddedness as opposed to external embeddedness, does not display any significant effects on innovation. Instead, it is a driver for HQ involvement in the innovation development process by allocation

of resources. This enables value creation and upgrading of competences, which in turn adds to the competitive advantage. It also results in innovations being perceived as something valued in the organisation (Ciabuschi et al., 2011a). However, in day-to-day business the external and internal environment are equally important to the MNC as a whole (Andersson, 2003).

#### **2.4.1 Subsidiary embeddedness' impact on innovation**

External and internal embeddedness can put opposing requirements on the subsidiary in terms of innovation, creating a trade-off (Andersson & Forsgren, 1996; Ciabuschi et al., 2014). These opposing requirements can cause tensions, as subsidiaries are faced with having to respond to local market demands and HQ's overall integration (Forsgren, 1990; Forsgren & Pahlberg, 1992; Forsgren et al., 2005). The more subsidiaries become embedded in their external environments, the more the external environment competes with HQ's desire to control its subsidiaries (Andersson & Forsgren, 1996). More specifically, when subsidiaries pursue interests based on local rationality in their specific business networks they may desire greater autonomy and influence. However, these interests may not always be in accord with HQ's interests (Forsgren et al., 2005). Consequently, conflicts evolve around for example market and customer preferences, global and local competitors' strategies, regulatory requirements, asymmetries between local and global industry dynamics, strategic misalignments, or managerial self interest (Schotter & Beamish, 2011).

In addition to conflicts arising from internal and external embeddedness, different attributes affecting subsidiary innovation have been identified: Firstly, the subsidiary has to have sufficient resources at its disposal to engage in trial and error activities and if subsidiaries are relatively more autonomous they are more innovative. Secondly, normative integration of the subsidiary with HQ overall goals, strategies and values is associated with higher levels of innovation activities (Ghoshal & Bartlett, 1988). Thirdly, innovation activities are driven by effective reward systems, which must reflect on goals, feedback, emphasis on individual responsibility, as well as result-based incentives. Moreover, factors such as gaining HQ's support in innovation, championing innovative ideas and receiving the necessary expertise and protection are important (Hornsby, Kuratko & Zahra, 2002). Finally, Ghoshal and Bartlett (1988) argue that higher density of internal communication among managers at subsidiary level as well as between HQ and subsidiary managers creates more subsidiary innovations (Ghoshal & Bartlett, 1988).

Subsidiaries can reach higher levels of innovativeness by simultaneously tapping into the knowledge of internal and external counterparts (Almeida & Phene, 2004; Cassiman & Veuglers, 2006; Figueiredo, 2011; Yamin & Andersson, 2011; Dellestrand, 2011). The ability to

recognise the value of new external information, to be able to assimilate it and eventually to apply it to commercial ends is referred to as absorptive capacity (Cohen & Levinthal 1990; Andersson et al., 2001). When an MNC wishes to acquire and use knowledge it is fundamental to dedicate efforts to create absorptive capacity (Cohen & Levinthal, 1990). However, internal and external knowledge differ in importance for subsidiary innovativeness: Almeida and Phene (2004) find that the impact of the MNC network on subsidiary innovation is limited and that it is foremost external linkages that support subsidiary innovation. A possible explanation may be the differentiated roles of the MNC subsidiaries (Almeida & Phene, 2004).

## **2.5 Subsidiary management squeeze: Conflicts and solutions**

When different stakeholders try to pursue their interest, it becomes difficult to reach consensus on goals and overall strategies (Forsgren et al., 2005). Moreover, as long as HQ is engaged in designing the role of subsidiaries and perceptions about the subsidiary role differ between subsidiary and HQ managers, subsidiary managers continue to face a never-ending bargaining situation (Birkinshaw, Holm, Thilenius & Arvidsson, 2000; Forsgren et al., 2005; Schotter & Beamish, 2011). These conflicts evolving between HQ and subsidiaries are similar to what Esty and Winston (2006) refer to as ‘middle management squeeze’: Middle management are often pulled in different directions, especially with respect to integrating environmental performance into operations (Esty & Winston, 2006). For example, middle management in the form subsidiary managers “[...] must be bi-cultural interpreters, national advocates and defenders, and front-line implementers.” (Vora, Kostova & Roth, 2007:596). Thereby, subsidiary managers are faced with the challenge to balance autonomy and integration (Birkinshaw et al., 2000; Andersson, 2003; Forsgren et al., 2005). One common problem is that incentives for subsidiary management often are not in line with the company’s environmental goals: In the end it is the company’s core concerns, such as sales and profit margins, what are focused on in performance reviews. To resolve subsidiary management squeeze, aligning incentives and training management can be a solution (cf. Esty & Winston, 2006).

In order to minimise the risk of conflict, Schotter & Beamish (2011) propose boundary spanners as the most effective tool for handling the highly complex dynamics of global integration and local responsiveness (Schotter & Beamish, 2011). These boundary spanners are creators of formal and informal communication networks and relationships (Harvey, Novicevic & Kiessling, 2001). Boundary spanners are either individuals that are members of both HQ and subsidiary or are successful in creating trust among the members of both sides (Schotter &

Beamish, 2011). Further, it is important that boundary spanners identify with both HQ and subsidiary, despite the potential role conflict (Vora et al., 2007), and are able to improve the relationship as well as open up for exchange of different insights (Harvey et al., 2001). What is highlighted is that these individuals are picked based on their expertise and tenure at subsidiary as well as HQ level and that it is of great importance that the MNC creates an environment where boundary spanners can thrive and become deeply embedded in the local context as well as the MNC as a whole. However, a common mistake is to promote boundary spanners to HQ-level. Yet, on an HQ-level boundary spanners become less effective, thus they should be located at subsidiary level in order to achieve the best outcome (Schotter & Beamish, 2011) and reduce subsidiary management squeeze.

Another approach to solving subsidiary management squeeze is by adhering to procedural justice (cf. Kim & Mauborgne, 1993a), which is a factor that affects commitment, trust and social harmony among members of subsidiaries. Procedural justice is defined as “the extent to which the dynamics of the multinational’s strategy-making process for its subsidiary units are judged to be fair by subsidiary top management” (Kim & Mauborgne, 1993a:422). This means that subsidiary managers react to the fairness of the procedures, which lead to decision outcomes (Kim & Mauborgne, 1991). From a subsidiary perspective procedural justice includes five distinct characteristics which are: (1) two-way communication in the strategy-making process; (2) the possibility for subsidiary units to challenge HQ’s way of thinking; (3) HQ being knowledgeable of the local situation of subsidiaries; (4) final strategic decisions being proclaimed to subsidiaries; and (5) HQ making consistent decisions across subsidiary units. If procedural justice is perceived to be high, subsidiaries are more likely to align with the strategic decisions (Kim & Mauborgne, 1991; Kim & Mauborgne, 1993b).

Since subsidiary managers play an important role as catalysts for the implementation of MNC’s strategic decisions, compliance is of high value for the MNC (Kim & Mauborgne, 1993a; Floyd & Wooldridge, 1997; Ouakouak, Ouedraogo & Mbengue, 2014). Moreover, the combination of consistent influence from HQ and influence from subsidiary management is positively associated with operational performance (cf. Floyd & Wooldridge, 1992; Floyd & Wooldridge, 1997), and in this process subsidiary management is a key driver. Thus, involving subsidiary management in the strategy making process may lead to benefits such as HQ receiving information about key stakeholders, generation of sense of ownership at subsidiary level, enhanced employee attachment to the organisation and to their job, improved quality of strategic decisions, and lastly, better strategy implementation (cf. Ouakouak et al., 2014). Thus, procedural justice plays a role as countervailing measure that motivates subsidiary

managers to implement and execute HQ's strategic decisions (Kim & Mauborgne, 1993b).

## 2.6 Presentation of the conceptual framework

As discussed in the literature review, the MNC can be conceptualised as an interorganisational network, which is embedded in multiple external environments (Ghoshal & Bartlett, 1990). Thus, HQ-subsidary dynamics have become more complex (Hedlund, 1986; Forsgren, 1990; Forsgren & Palhberg, 1992; Malnight, 1995; Ciabuschi et al., 2012a) and as a result, HQ has been described as puppet on a string or brain of the organisation (Ciabuschi et al., 2012b). In order to be able to take action in such a network, HQ must gain legitimacy, which can be done through spectacular decisions and symbolic behaviour (Forsgren, 1990), as displayed in Figure 1. Such actions increase visibility and cost of failure, thus putting pressure on the organisation. This in turn gives HQ legitimacy to put pressure on subsidiaries.

As subsidiaries are dual embedded in the MNC network and their local environment, they are faced with dual requirements, having to respond to HQ and local market demands (Ghoshal & Bartlett, 1990; Forsgren, 1990; Ciabuschi et al., 2011a; Ciabuschi et al., 2014). This can create conflicts between long-term HQ priorities and short-term subsidiary results, leading to subsidiary management squeeze (cf. Esty & Winston, 2006), as shown in Figure 1. Depending on what pressures dominate, subsidiaries follow HQ overall strategy or local market demands.

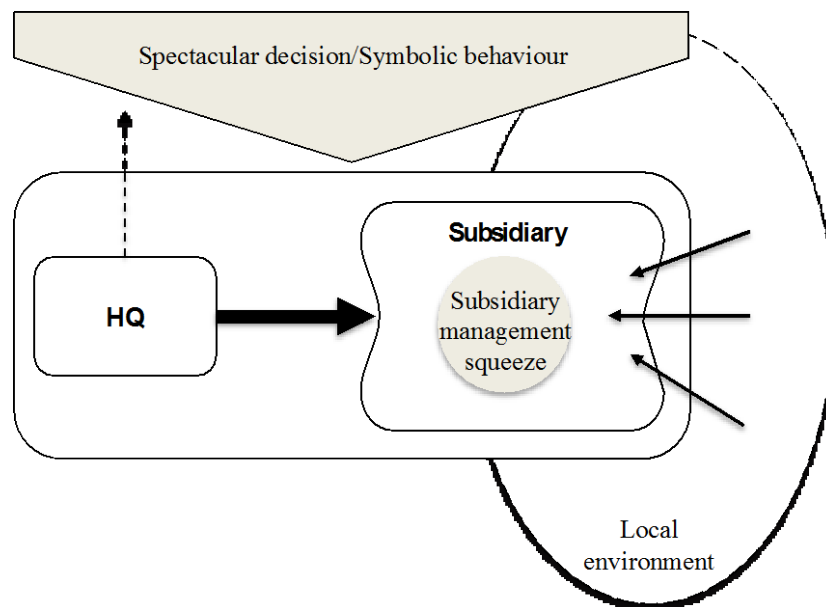


Figure 1. Conceptual framework based on literature review. Source: Authors' conceptualisation.

## 3 METHODOLOGY

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*In this chapter an overview of the research methods is given. The reader is provided with a description of how this single case study was conducted using primary data in form of semi-structured interviews. Advantages and disadvantages in terms of validity and reliability are discussed in the end of the chapter.*

### 3.1 Research approach

This study focuses on how HQ-subsidary dynamics shape the integration of environmental sustainability into strategy. There is numerous research within the fields of sustainability and strategy, yet little research analyses the integration of sustainability into strategy taking an empirical approach. However, empirical studies are needed to identify and analyse the challenges faced by companies working with environmental sustainability in general and environmental portfolios in particular. Therefore, this study is of exploratory nature and aims to fill this gap by empirically investigating this topic in a single case study based on the *MECH Group* (Bryman & Bell, 2011). Hence, interpretivism is the underlying research paradigm, where reality is seen as multiple and subjective (Collis & Hussey, 2009). Due to the fact that the environmental portfolio is perceived differently by the respondents at HQ and subsidiaries, the researchers have to be aware of the surroundings influencing the responses. To gain an understanding, the researchers let the respondents describe their background and current position within the *MECH Group*.

Due to the fact that this research is a single case study (Bryman & Bell, 2011), the starting point is an inductive reasoning based on the empirical material gathered, which is then contrasted to relevant literature to form an initial framework for the researched phenomenon. This initial framework is taken back to the empirical data to test the hypotheses put forward. This iterative process leads to a profound understanding of the research phenomenon and hence, an abductive approach is most applicable in this case study (cf. Collis & Hussey, 2009), as described in Figure 2 below. Furthermore, when researching a new phenomenon and developing new theories a single case study is suitable (Lervik, 2011). Thus, in this study one MNC was chosen as research object.

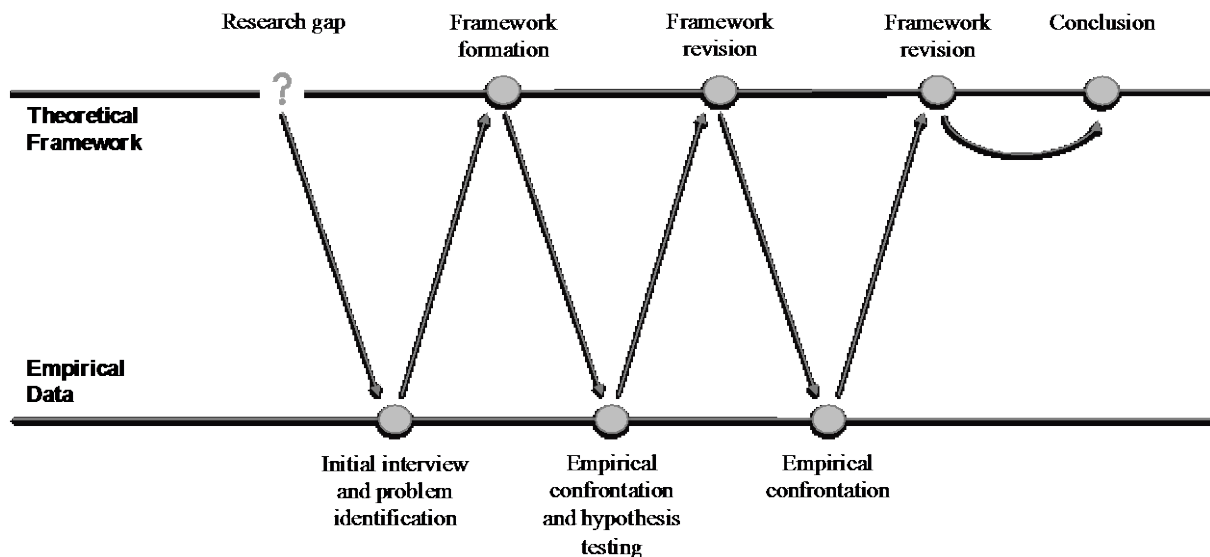


Figure 2. The research approach. Source: Authors' conceptualisation based on research method seminar 4th of November 2013.

One of the central concerns when conducting an empirical study is data access and quality. Therefore, establishing a relationship with an MNC is recommendable in order to retrieve primary data (Lervik, 2011). However, basing the research solely on primary data has different implications since the researcher approaches the topic through the eyes of the respondent. Thus, the researcher has to be sensible about how the respondent may perceive his or her reality. In this study the researchers established a close relation with the company studied and were thus able to understand the underlying historical and social forces (cf. Bryman & Bell, 2011).

### 3.2 Research design - unit and sample

The researchers' interest in environmental sustainability and a discussion with the faculty of the School of Economics, Business and Law in Gothenburg led to a contact with the *MECH Group*, an MNC which is seen as one of the leading companies in environmental sustainability. Besides, the *MECH Group* recently launched an environmental portfolio and is thereby a suitable research unit for empirically investigating the integration of environmental sustainability into strategy.

A single case study based on primary data was identified as the most applicable research design to answer the research question. Taking a single case study approach mitigates hermeneutical problems because the researcher gets an in-depth insight into the MNC and thus becomes sensitive to the context, leading to precise interpretations (Lervik, 2011). In a case study it is crucial for the quality of the study to get access to suitable respondents. By estab-



lishing a close relationship with the MNC, liability of outsidership is reduced and chances of accessing valuable data increase. Moreover, by engaging the respondent at an early stage of the process the respondent's commitment to the study increases. However, this increases the risk of the MNC influencing the research question and conceptualisation of the study (cf. Lervik, 2011). In the case at hand, the main contact at the *MECH Group* encouraged a close collaboration with the researchers, resulting in an open dialogue about the research design during the initial phase. Once the study took form, the researchers independently formulated the research question based on the empirical data gathered and the conceptual framework.

### **3.2.1 Data collection method**

The empirical data presented in this study has been collected from several sources: The data collection took a starting point in reviewing secondary data from MNCs with environmental portfolios and similar strategies, which has been gathered through desk research. Information from the MNCs' homepages as well as different public reports has been collected and analysed in order to gain a general understanding of the topic. The *MECH Group's* publicly available information was reviewed and analysed in depth.

To the largest extent primary data has been collected. This was done through interviews with key personnel of the *MECH Group* such as HQ managers, subsidiary managers, product owners, environmental specialists and an internal consultant. These respondents have been chosen in order to get a broad perspective on the topic from HQ and subsidiaries, which is important to answer the research question. During this process 20 interviews with an average length of approximately 45 minutes have been performed with 15 respondents located in Sweden, France, Germany, England and Italy (see Appendix 2). This implies a European bias, however, due to the existing contact between the researchers and the *MECH Group*, these respondents have been available. Nevertheless, when conducting this study over a longer period of time, it would be recommendable to interview respondents from other parts of the world as well.

Since the topic of this study is environmental sustainability, and travels were not considered vital for the study, the researchers chose to abstain from air travel to conduct interviews. Instead, the researchers conducted interviews with respondents located elsewhere using Skype or the phone. In that way, the researchers made sure that the practical research methods were in line with the underlying normative reasoning of this study.

The initial interviews with the main contact at the *MECH Group* provided the researchers with contacts to additional respondents. This procedure continued along the interview process,

resulting in the phenomenon of “snowball sampling” (Merriam, 1998). Moreover, during the data collection phase, the researchers attended a public presentation with the CEO as well as a mingle with representatives from the *MECH Group*. The researchers took the opportunity to ask a question about the environmental portfolio at the end of the presentation and to converse with the CEO during the mingle. In addition, the researchers talked to three *MECH Group* employees and received contact information to an additional respondent during the mingle.

### **3.2.2 Interview process and interview guide**

In this research all interviews were recorded and transcribed in order to minimise the risk of misunderstandings, confusion and forgetting valuable information in the interview process. Moreover, interviews were conducted in Swedish as well as English since not all respondents were familiar with the Swedish language. However, this was not viewed as a disadvantage since English is the corporate language at the *MECH Group* and the researchers are comfortable communicating in both languages. Nevertheless, when conducting interviews in Swedish the researchers were required to translate quotations used in the study, and in this process it evident that the researchers must pay close attention to what was said and translate it with great accurateness. When translating there is always a risk for losing richness of the quotation but as the researchers are familiar with both languages they were able to minimise that risk.

The interviews with the main contact at the *MECH Group* were unstructured interviews conducted in an informal manner where the respondent had the opportunity talk freely about how the environmental portfolio was developed and implemented. Thus, these interviews provided the researchers with an overall understanding of the *MECH Group* and its environmental portfolio. During this process the researchers filled in with questions based on what was being discussed. The advantage with this interview approach is that it allows for an open discovery (Collis & Hussey, 2009), which is important for an empirical study. As the researchers gained a better understanding of the *MECH Group* and its environmental portfolio, the interviews took on a semi-structured manner with the usage of an interview guide in a formal setting. The argument in favour of this was to be able to steer the respondent to discuss issues and concerns relevant to the formulated research question. Besides, semi-structured interviews allow adapting the questions raised as different topics are revealed in different interviews (Collis & Hussey, 2009), due to the fact that respondents had different organisational backgrounds. Moreover, the interview process was an iterative learning process where the researchers revised questions along the way in order to get more and more out of each interview.

The interview guide (see Appendix 3 and 4) consists of a set of open questions. A mix of di-

rect and indirect questions was used to gain an understanding of both, the respondent's assessment of the situation and more general viewpoints. Follow-up and interpreting questions were posed for clarification and to ensure that the researchers perceived the situation correctly (cf. Blumberg, Cooper, & Schindler, 2011). The researchers prepared different interview guides depending on the respondent's role as representative of HQ (member of the *Positive Impact* board or team) or subsidiary (product owner). Furthermore, depending on the scheduled interview time the interview guide was shortened when necessary. When conducting the interview, the interview guide served as supporting document for the researchers. However, the questions were not always posed in the same order and manner, but instead adopted to fit the flow of the discussion.

### **3.3 The analytical process**

As the researchers started with the empirical data collection, the gathered material was continuously transcribed and reflected upon. This was done in order to have the discussions with the respondents fresh in mind and to increase the understanding of the context. Continuous analysis and reflection also mitigated the risk of complications later on in the process (cf. Merriam, 1998). The gained understanding was applied in subsequent interviews and enabled follow-up questions in order to gain a more nuanced picture.

When the empirical data had been collected, it was compiled and data from different interviews was compared. It was then analysed and framed based on the conceptual framework in order to identify patterns and triangulate important findings. Based on the findings the researchers discussed and drew conclusions about the research questions. Some of the data gathered did not reach sufficient depth, however, some of it was still included in the research to contextualise the case and give a comprehensive picture of its complexity.

### **3.4 Validity and reliability**

In the initial stage of this study the researchers signed a nondisclosure agreement with the *MECH Group* as well as agreed to anonymise the study. This was done in order to gain access to confidential information in form of internal documents and interviews and allowed for a more open environment and discussion, consequently increasing the validity of the research.

During the empirical data-gathering process the researchers constantly worked in a team of two, interviewing, transcribing and reflecting upon the data. Besides, interviews were recorded which reduced the risk of misunderstandings. To avoid getting a one-sided-perspective, different *MECH Group* employees were interviewed concerning the same issue and clarifica-

tion-questions were continuously posed. These measures further increased the validity of the study.

Generally, in qualitative research, reliability is low due to difficulties in replicating the study (Bryman & Bell, 2011). In the case at hand, due to the anonymisation of the study, this becomes even more difficult. Yet, this step was a necessity to be able to conduct the study. Besides, as the researchers conducted semi-structured interviews, it also becomes difficult to replicate the study as different questions may occur resulting in different data gathered. Moreover, this study focuses on a single point in time in an on-going process of integrating environmental sustainability into strategy. Hence, when carrying out the same research at a later point in time, results will differ as the process moves along and the portfolio matures.

## 4 BACKGROUND TO THE *MECH* GROUP

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*In this chapter a background to the MECH Group and a discussion of how to understand it as an interorganisational network is given. Further, the different HQ and subsidiary units are described and defined. The intent of this chapter is to provide a context to the empirical findings in the subsequent chapter.*

### **4.1 How to understand the *MECH* Group**

The *MECH* Group is a well-recognised global industrial company that is market leader in many different areas and at the forefront of environmental sustainability. The company is perceived as a ‘typical engineering firm’ and many of its customers and suppliers also belong to this category of companies. The culture of an engineering firm is described as being obsessed with formal processes, procedures and guidelines and therefore, methods and measures are frequently used in decision-making processes. Evaluation and step-wise command and control are important parts of processes and the culture states that “if you can’t measure it, it doesn’t exist” (Rosén, 2011:59).

The *MECH* Group has a complex matrix structure with functional as well as regional units. It can be conceptualised as an interorganisational network that is embedded in multiple external environments (cf. Ghoshal & Bartlett, 1990). The corporate HQ is based in Sweden, where the corporate executive board is located as well as the different group staff functions (see Figure 3). The corporate HQ has formal overall responsibility for coordinating activities (cf. Dellstrand, 2011). In most cases people working in staff functions are located at the HQ in Sweden with some exceptions where people are located elsewhere (*Positive Impact* Portfolio Manager, HQ. Interview 2014c).

The company has three business areas (see Figure 3), which are the *MECH* Group’s operational units with sales and manufacturing organisations. The first business area focuses on a rather defined industry<sup>3</sup>, whereas the other business areas focus on a wide range of industries and the after sales market<sup>4</sup>. The three business areas have individual executive management teams and are represented in the group executive board. Moreover, the business areas are responsible for delivering expected results, but have quite free hands to operate in a way that they perceive fits their requirements. To a certain extent the three business areas have separate

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<sup>3</sup> Business Area One

<sup>4</sup> In this thesis the two business areas focusing on a wide range of industries and after sales markets are collectively referred to as Business Area Two.

staff functions (*Positive Impact* Portfolio Manager, HQ. Interview 2014c). Hence, each business area's top management corresponds to Dellestrand's (2011) divisional HQ and one can conclude that HQ exist on different levels within the *MECH Group* and that responsibility areas differ between them (cf. Dellestrand, 2011; Ciabuschi et al., 2012a).

In a global organisation like the *MECH Group*, the organisational structure is even more complex than this: In strategically important geographical markets there can be a national or regional *MECH Group* organisation with its own HQ and organisational structure, which are chosen due to the strategic importance of steering subsidiaries within the region (cf. Mahnke et al., 2012). The national and regional organisations have developed within the *MECH Group* or have been acquired (*Positive Impact* Portfolio Manager, HQ. Interview 2014c). Hence, the *MECH Group* consists of corporate HQ as well as divisional HQ and regional HQ and when referring to 'central' functions or activities, respondents refer to these units and their staff functions. Thus, the line between the different HQ becomes blurred.

The business areas with their HQ branch out into business units (see Figure 3). When referring to 'local', respondents mean these business units in Sweden and abroad. Managers at those units are responsible for a certain industry segment or product group and do not have responsibility for the overarching strategy. Therefore, the units correspond to what is discussed as subsidiaries in the *International Business* literature (cf. Ghoshal & Bartlett, 1990). Some of these subsidiaries are market-seeking and aim to meet the requirements posted by the local environment. Besides, the role of subsidiaries in the *MECH Group* is rather free: subsidiary managers are given the freedom to operate within predefined boundaries set out by the divisional HQ (cf. Cantwell & Mudambi, 2005; Birkinshaw et al., 2005; Bouquet & Birkinshaw, 2008). In addition, the *MECH Group's* subsidiaries exploit MNC technologies on a global basis, as product managers have global responsibility and create new technologies (cf. Rabbiosi, 2011). Nevertheless, the description of subsidiaries as operational units situated outside the home country only fits the *MECH Group* partly, as country borders do not play such an important role in this particular MNC (cf. Birkinshaw, 1997).

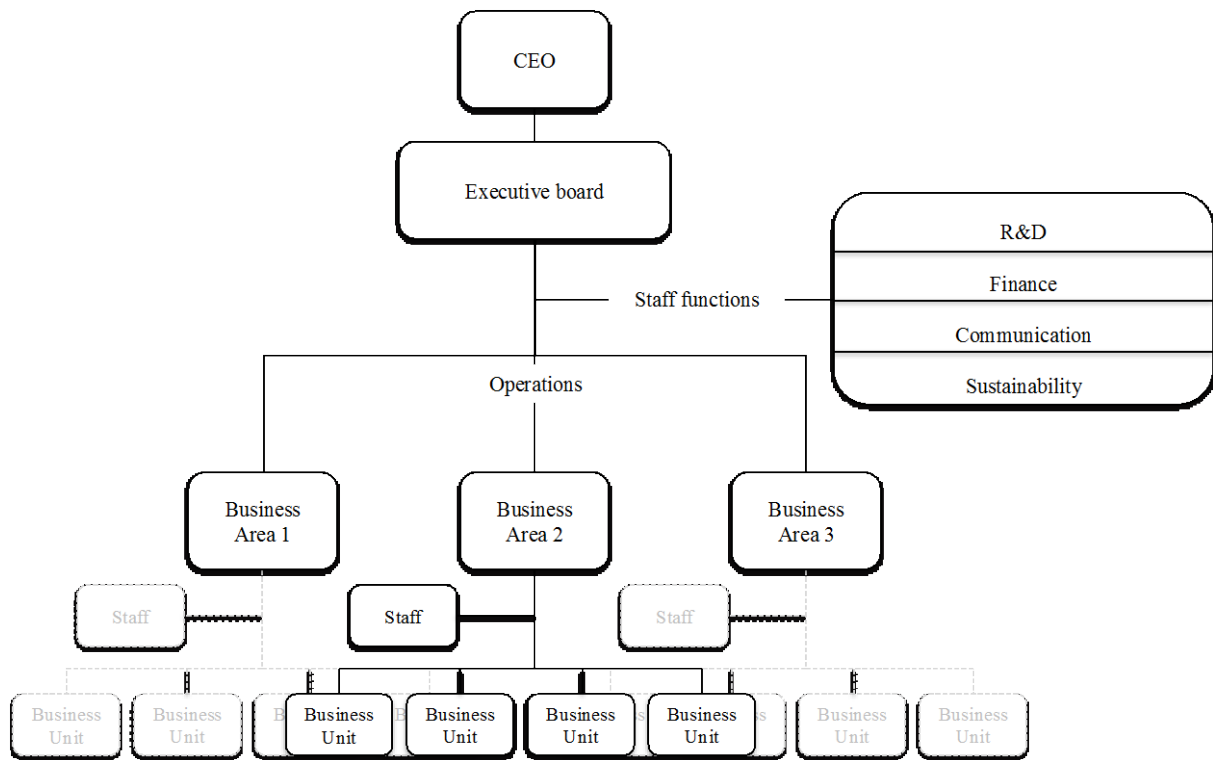


Figure 3. Schematic picture of the *MECH Group's* organisational structure. Source: Authors' conceptualisation.

## 5 EMPIRICAL FINDINGS

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*In this chapter the empirical findings collected from interviews with HQ representatives and local product owners at subsidiaries are presented. The chapter starts off with telling the story of Positive Impact, followed by a discussion about HQ management push and the transition to local ownership. Further, the reasoning behind as well as the practical implications of local ownership are presented and a discussion about the differences in implementing environmental sustainability in the different business areas is given. Lastly, recent developments and changing attitudes are highlighted.*

### **5.1 The story of the *Positive Impact* strategy and portfolio**

Environmental sustainability has for a long time been an integral part of the *MECH Group's* operations. The *Positive Impact* strategy, including the *Positive Impact* portfolio, add a higher dimension to environmental sustainability as the *MECH Group's* CEO saw a need for strategic change. Yet, how to implement initial ideas into what later became the *Positive Impact* portfolio remained an open question for a long time. The following part describes this journey by presenting a background to the emergence of the strategy between 2004 and 2009 as well as discussing the subsequent development the portfolio until 2013.

#### **5.1.1 The emergence of *Positive Impact*; 2004-2009**

The idea for an environmental sustainability strategy started to develop in 2004 when the CEO attended a seminar about environmental challenges and came to the conclusion that the *MECH Group* had to develop a strategy to support environmental sustainability. From an employee point of view, the first contact with the strategy is described as the CEO coming down to his co-workers at the HQ and asking about the *MECH Group's* environmental offerings. This led to everyone asking him- or herself if they had any:

*“I think it was because our CEO came down to the 11th floor at our Headquarters and asked my former co-workers over there ‘Where are all our environmental offerings, where are all our environmental offerings?’ Thus, everyone asked themselves ‘Where are they, where are they?’.”* (Environmental Specialist, Business Development, BA2. Interview 2014a)

The CEO formed a team with key people from the *MECH Group* in order to develop a new environmental strategy. When the CEO saw a Toyota advertisement, claiming that Toyota aimed for zero emissions, he thought that the *MECH Group* could have come up with this as well. Yet, the team had something even more ambitious in mind: Instead of aiming for zero



emissions, the team wanted to reach a net positive impact (CEO. Public Presentation 2014). From this inquiry the *Positive Impact* strategy developed, consisting of two parts: Firstly, the *MECH Group* strives to reduce its negative impact on the environment by reducing for example energy use and CO<sub>2</sub> emissions at its production sites as well as those of suppliers. Secondly, the *MECH Group* develops products and solutions with enhanced environmental benefits that make the *MECH Group's* customers more environmentally friendly. Hence, overall the *MECH Group* contributes to a positive development in environmental terms (*MECH Group*, 2012a).

The following years, the *MECH Group* faced several challenges such as convincing subsidiary management and employees of the significance of this project, especially with regards to integrating environmental benefits in products and solutions. Subsidiary management reckoned that its interests were not considered when this strategy was implemented in a top-down approach. With continuous pressure from HQ, the *MECH Group* in 2007 launched the first products related to the *Positive Impact* strategy. Nevertheless, difficulties in identifying market demand and uncertainty about the strategy's meaning and motives remained. In 2008, HQ wanted subsidiaries to get more involved in the strategy and to develop a sense of ownership for it in order to move away from the top-down approach. However, primarily people within subsidiary management continued to perceive the strategy as something pushed upon them (Rosén, 2011).

### **5.1.2 The development of the *Positive Impact* portfolio; 2010-2013**

In 2010, the *Positive Impact* strategy reached critical phase. An internal project was launched with the aim to develop a method for defining, measuring and verifying the environmental performance of the *MECH Group's* environmental products and solutions. The Director of Corporate Sustainability describes this project as one of the most difficult projects due to the pressure from HQ top-management to get the project quickly up and running and at the same time to develop robust and credible methods to safeguard from greenwashing:

*“That was probably one of the hardest things I’ve ever done in my career, running that project. It was very difficult. And why? It was basically... it was... very new and there wasn’t really a template to follow. [...] It was hard to get a consensus. There was a lot of pressure from the group management to actually get it done and to get it done quickly. But at the same time it had to be, you know, credible. That was a point that was emphasised again and again. We had to be robust in this, and we opened ourselves up to sort of any accusations*

*of greenwashing or what-have-you. [...] It was really hard and... yeah... [Laughter] There were a few sleepless nights I think.”* (Director Corporate Sustainability, HQ. Interview 2014)

The project group benchmarked against other companies’ environmental portfolios and took an iterative ‘learning-by-doing’ approach for evaluating environmental performance (*Positive Impact* Portfolio Manager, HQ. Interview 2014a).

Moreover, talks with external auditors occurred, in order to increase credibility through third party review. The goal was to come up with a good solution and to become more transparent. This open dialogue even aided to develop clear definitions (Internal Consultant, *MECH Group*. Interview 2014). At the same time, discussions with an environmental NGO were initiated about establishing a collaboration concerning the *Positive Impact* strategy (*Positive Impact* Portfolio Manager, HQ. Interview 2014b). This collaboration was regarded important because the *MECH Group* wanted an independent third party to acknowledge and recognise the high ambition of the *Positive Impact* target (Director Corporate Sustainability, HQ. Interview 2014).

In the project’s second phase, in 2011, the method and organisational structure were further developed and established. It was decided that the process of including additional products in the portfolio should be based on local initiative, meaning that product developers and product owners across the organisation present their candidates for a central *Positive Impact* portfolio board. The reasoning behind this approach was that the portfolio should be owned by the organisation and the people who work with it on a daily basis, whereas the function of the Corporate Sustainability Department was supposed to be kept at a limited level. A top-down approach as the *MECH Group* had taken in the early 2000s was regarded as extremely difficult and not successful (Director Corporate Sustainability, HQ. Interview 2014). In 2012, the *Positive Impact* portfolio was launched externally and at the same time the collaboration with the environmental NGO was announced. At the launch the portfolio consisted of tenfold solutions, and moving forward much efforts has been put into filling the portfolio with additional solutions. By the end of 2012, the portfolio had triple the amount of products and solutions (*Positive Impact* Portfolio Manager, HQ. Interview 2014b).

Besides, increased focus was put on transparent processes since by the end of the year an external company audited the portfolio. Third party review is considered of great importance due to concerns regarding increased credibility and avoidance of greenwashing. Hence, short cuts are avoided and the pressure on the organisation increases (*Positive Impact* Portfolio

Manager, HQ. Interview 2014a). Furthermore, stabilisation was the theme during 2013 where work to refine processes and procedures was continuously conducted and for the second time, the portfolio was audited by an external company (*Positive Impact* Portfolio Manager, HQ. Interview 2014b). In 2013, more solutions were added to the portfolio (*MECH Group*, 2014).

**5.1.3 The organisation of the *Positive Impact* portfolio**

Over the years, as the *Positive Impact* portfolio developed, an organisational structure for managing the portfolio emerged, resulting in the *Positive Impact* board and the *Positive Impact* team. These are embedded in the Corporate Sustainability function and led by the *Positive Impact* Portfolio Manager. The board is the main body to manage the portfolio and consists of nine members<sup>5</sup>, as shown in Figure 4 (*Positive Impact* Portfolio Manager, HQ. Interview 2014a; 2014c).

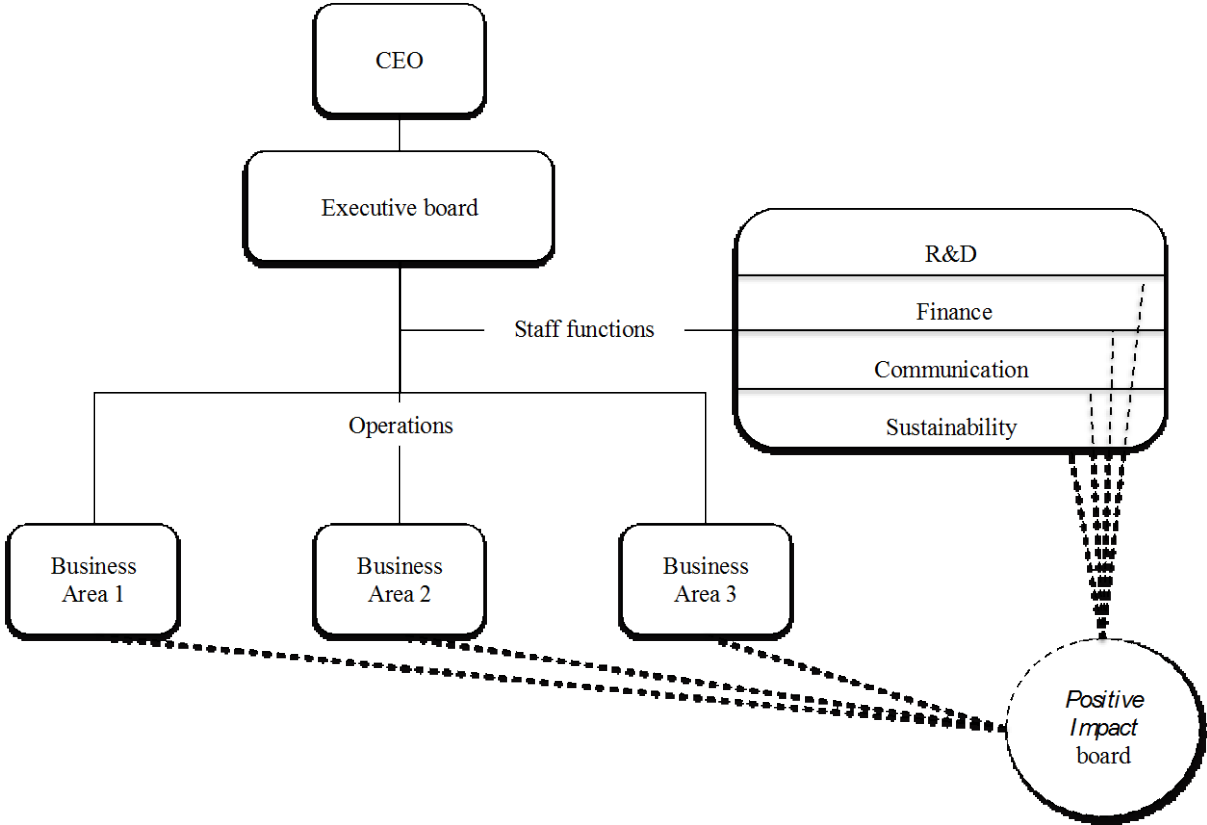


Figure 4. Schematic picture of the *Positive Impact* board’s connection to the organisational structure. Source: Authors’ conceptualisation.

According to the *Positive Impact* Portfolio Manager one way to achieve integration of the portfolio into the organisation is by having representatives from each part of the organisation

<sup>5</sup> The *Positive Impact* board consists of two persons from Sustainability, two from Business Area One and one each from the other two Business Areas, as well as one representative from each of the staff functions Communication, Finance, and R&D.

in the *Positive Impact* portfolio board (*Positive Impact* Portfolio Manager, HQ. Interview 2014c). For example, the board member representing Finance emphasises her role in contributing with her expertise from finance and accounting to the board as well as spreading knowledge about *Positive Impact* in her functional group (*Positive Impact* Board Member, HQ. Discussion 2014). Likewise, for the sake of integrating the portfolio in the operational functions, the business areas are represented to transfer knowledge from the board to the respective business area and at the same time contribute with operational expertise to the work of the board (*Positive Impact* Portfolio Manager, HQ. Interview 2014c).

Furthermore, the *Positive Impact* team has been established as a link between on the one hand the Sustainability Department and *Positive Impact* board and on the other hand the business areas and operational functions. The team consist of five people<sup>6</sup> who identify suitable candidates for the portfolio and help colleagues to put together basic data and presentation material for presenting products to the *Positive Impact* board (*Positive Impact* Portfolio Manager, HQ. Interview 2014a; 2014c). Furthermore, the *Positive Impact* team functions as a two-way channel to resolve issues and questions that arise in the organisation in a primary stage. If the issues cannot be resolved, they are escalated to the *Positive Impact* board (*Positive Impact* Portfolio Manager, HQ. Interview 2014b).

In practice, as candidates have been identified, presentation material is prepared, if needed with the support of the team (*Positive Impact* Portfolio Manager, HQ. Interview 2014a). However, product owners state that preparing the presentation is not especially time consuming (Business Development Manager, BA1. Interview 2014; Business Engineer, BA2. Interview 2014; Global Segment Manager 1, BA1. Interview 2014; Marketing and Sustainability Manager, BA2. Interview 2014). Subsequently, the local product owner presents the product together with his or her arguments for why the product should be included in the portfolio. The *Positive Impact* board then decides if the product fulfils the necessary requirements (*Positive Impact* Portfolio Manager, HQ. Interview 2014a).

## **5.2 HQ management push to initiate *Positive Impact***

When the *Positive Impact* strategy was initiated in 2005, HQ management pushed the new strategy upon the organisation. This management and technology push is best illustrated by the following example: It was a top priority of the CEO to develop products with enhanced

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<sup>6</sup> The *Positive Impact* team consists of the Portfolio Manager, and one representative from each business area as well as one representative from R&D.

environmental performance that could be presented to the public at the *MECH Group's* anniversary. Yet, only limited customer interest could be identified for the new products and thus, some steps in the product development process had to be skipped, which included defining the customer and presenting the business case (Rosén, 2011). However, having a business case is a crucial condition for being able to continue the product development process and in the example at hand, this central condition was disregarded in favour of HQ management preferences (*Positive Impact* Portfolio Manager, HQ. Interview 2014b). In addition to checklists being skipped, some managers that usually were involved in product development projects, were not informed about the new products and excluded from the development process (Rosén, 2011). This caused a lot of uncertainty among employees and irritation among subsidiary management (*Positive Impact* Portfolio Manager, HQ. Interview 2014b).

Subsidiary management perceived that they were being overlooked in the product development process and consequently, this caused tension and resistance against the strategy. Resistance went so far that some managers even avoided being part of the strategy. This was a problem not only because it hindered the project team's work since decisions were avoided but also because it interfered with the CEO's intention of shifting ownership and responsibility to subsidiaries. As a result, in 2007 more resources were allocated to sustainability initiatives in the business areas. Yet, the issue of lacking local ownership remained as employees demanded clearer directives while HQ management advocated more actions. How to solve this challenge was a recurrent discussion within the Corporate Sustainability team. Eventually it was decided that employees should form their own comprehension of *Positive Impact* with the intention of increasing sense of ownership among the employees (Rosén, 2011).

### **5.3 Local ownership in the *Positive Impact* portfolio**

Learning from the experiences made when pushing the *Positive Impact* strategy upon the organisation, it became evident that the *Positive Impact* portfolio should be based on local ownership. This central assumption permeated the portfolio formation projects (*Positive Impact* Portfolio Manager, HQ. Interview 2014b; Internal Consultant, *MECH Group*. Interview 2014; Environmental Specialist, Business Development, BA2. Interview 2014a). Hence, central resources to identify new portfolio products and promote the development of products with enhanced environmental performance are limited, only few central staff and no pot of money are available. It was decided that technology development as well as marketing activities should be integrated in existing operations (*Positive Impact* Portfolio Manager, HQ. Interview 2014a).

### 5.3.1 The reasoning behind local ownership

The first argument in favour of local ownership is that people within subsidiaries and within product development teams are the ones who actually know customer needs and come up with different solutions needed on the market (Director Corporate Sustainability, HQ. Interview 2014). Indeed, market requirements are key for the *MECH Group* and for the success of *Positive Impact* (Business Development Manager, BA1. Interview 2014; Global Segment Manager 1, BA1. Interview 2014). Placing the responsibility for developing the right products on subsidiaries, the *MECH Group* can avoid a mismatch between market requirements and the *Positive Impact* portfolio, as explained by the Business Development Manager:

*“I think the individual business units have to look at what the market is needing as the market requirement is key for the MECH Group. If we do not meet the requirement of the market and try to go on our own to do something which is great for [Positive Impact] but the market does not want it. That is not the target. So each business unit has to see what the market requirements are and address those.”* (Business Development Manager, BA1. Interview 2014)

Secondly, another argument for local ownership is related to the organisational structure of the *MECH Group*: Today, the *MECH Group* does not have a central product development division and the same goes for the sales division. As the divisions are local, local driving forces must exist resulting in local initiatives. Hence, the decision to base the portfolio on local ownership was the natural decision from an organisational point of view (Internal Consultant, *MECH Group*. Interview 2014).

Thirdly, there is another significant advantage with having the portfolio owned by subsidiaries: This approach decreases the risk of detachment from the organisation leading to better implementation of *Positive Impact*. The more *Positive Impact* is integrated into daily operations the better the effect of the portfolio becomes, as explained by an environmental specialist:

*“The more these decisions are made centrally and one cannot recognise oneself [in the decisions] out in the organisation [...] the slower the process goes [...].”* (Environmental Specialist, Product Development, BA2. Interview 2014)

Nevertheless, as pointed out by one respondent, to some degree central verification is necessary in order to guarantee that the same parameters are used in all calculations. There must be central validation to ensure that not just any product can be added to the portfolio without a

thorough evaluation process (Segment Marketing and Communication Manager, HQ. Interview 2014).

### **5.3.2 The practical implication of local ownership**

Even though many respondents agree that this local ownership approach is necessary and the natural way to go, some challenges have been encountered in an organisation with limited resources and many priorities. This has led to some inertia, which the organisation continuously struggles with. As a result, in practice the centrally administered *Positive Impact* team has been set up to support subsidiaries in implementing the *Positive Impact* strategy within their operations, as the *Positive Impact* Portfolio Manager describes:

*“Now naturally this has caused quite some difficulties: In an organisation with limited resources and many priorities it is difficult to perform what we plan to do as well and take these products to the Positive Impact board. There has come about some inertia here, which we have struggled with from the beginning and still do.”* (*Positive Impact* Portfolio Manager, HQ. Interview 2014a)

This argumentation is confirmed by the Environmental Specialist who describes the challenge during the initial phase to motivate people to present their products to the portfolio board. One of the main obstacles was that people did not understand the meaning of *Positive Impact*, therefore were not able to see its value. As a result, members of the *Positive Impact* team had to chase product owners and to convince them to present their products (Environmental Specialist, Product Development, BA2. Interview 2014; Segment Marketing and Communication Manager, HQ. Interview 2014). Naturally, some product owners refer to colleagues from the team when reflecting on their first contact with the *Positive Impact* portfolio (Business Engineer, BA2. Interview 2014; Global Segment Manager 1, BA1. Interview 2014). A business engineer takes this reasoning further by stating that it is a matter of consciousness within all areas of the organisation. Therefore, there is a need for a person in each subsidiary working with these type of questions (Business Engineer, BA2. Interview 2014). The Environmental Specialist has recognised this need and put in place an informal network in Business Area Two. The aim of this network is to work on an operative level and support the organisation in for example performing LCA since the managers are often busy with other tasks. Besides, the network functions as a communicator between subsidiaries as well as between the central sustainability staff function and operational units. The ambition is to add more people to this network, preferably from different geographic regions, however due to other engagements

and interests this has proven difficult (Environmental Specialist, Business Development, BA2. Interview 2014b).

In Business Area One, there is no such informal network. Instead, the process of working with the *Positive Impact* portfolio is described by the Manager of Innovation Processes as a combination of top-down and bottom-up approach. From a business area perspective, strategic directions and focus areas where the business area has the ambition to develop products and solutions are communicated down to subsidiary managers close to the market. This leads to interactions and discussions concerning what subsidiary managers perceive the market is demanding and what is expected to be developed on a business area level. It is a matter of giving subsidiary managers the freedom to operate within predefined boundaries as they are the ones with knowledge about market demand, but in the end it is the HQ management that validates the initiatives. The Manager of Innovation Processes describes the relationship between HQ management of Business Area One and subsidiary managers:

*“At the top, they give you play ground. But in the end, action is local, because these are the guys that are in charge of the segment. They know the customers, they know their needs and they know what the market is expecting in the end. So they are the best guys to propose things. But of course they cannot do anything they want. So we have a continuous dialog [...], where all ideas are presented, discussed and in a way validated by the top.”* (Manager Innovation Process, BA1. Interview 2014a)

However, subsidiary managers stated that top-down pressures are not particularly evident in daily operations. The main driver, as previously mentioned, is market needs. Moreover, *Positive Impact* is perceived as something that always has been a part of daily operations in Business Area One. If the product fits into the portfolio it is a welcome accompaniment but products are not developed specifically for the portfolio (Business Development Manager, BA1. Interview 2014; Business Engineer, BA2. Interview 2014). Nevertheless, the Internal Consultant also emphasises the need for more local initiative and competence in communicating and packaging the strategy internally and externally, as it was done when the portfolio was launched. The launch and how it was communicated are perceived by the Internal Consultant as real drivers for the portfolio (Internal Consultant, *MECH Group*. Interview 2014).

### **5.3.3 The sales target’s missing impact on local ownership**

The matter that local product owners do not experience any particular pressure with regards to *Positive Impact* can be attributed to the fact that the sales target, at the point of this study, is



not broken down further than to business area level. Therefore, according to the *MECH Group's* CEO, goals have to be further broken down to specific segments. In that way, ownership and responsibility are transferred to and strengthened within each subsidiary (CEO. Discussion 2014). Similarly, an environmental specialist stresses that breaking down the goal and making it more concrete for product development may lead to a different technical development as *Positive Impact* becomes a part of people's agendas and has to be prioritised in a different way (Environmental Specialist, Product Development, BA2. Interview 2014). Undeniably, up until now the ambitious multibillion sales target stays on a rather high level, as local product owners and developers do not recognise any more detailed requirements on their subsidiaries. Likewise, a Business Development Manager in Area One states that they do not have any specific *Positive Impact* goals and similarly, a Business Engineer from Business Area Two claims that he does not know about any specific targets:

*“We don't have any specific goals on [Positive Impact]. We have goals on sales from [development] projects, and of course we need to meet the customer requirements. I keep on saying that, but that's what we're trying to do. And that's how we work”* (Business Development Manager, BA1. Interview 2014)

*“I actually don't know. It can be so that those above me know that... hm... or that the sales department has it [...]. Not what I know of, no. [...] But we develop what the customer wants.”* (Business Engineer, BA2. Interview 2014)

A Team Manager from Business Area Two argues that it can be difficult to cascade the target down to respective subsidiaries. When it comes down to reaching the specific subsidiary target the risk is that products and solutions are developed for the *Positive Impact* portfolio that do not reach the high level of environmental performance just to fulfil the target (Team Manager Communication, BA2. Interview 2014). At the same time, there can be *Positive Impact* products with a real environmental benefit, however low customer interest in these product (Manager Innovation Process, BA1. Interview 2014b). Nevertheless, there is a need for more concrete targets within subsidiaries but at the same time hollowing out the *Positive Impact* portfolio must be avoided (Team Manager Communication, BA2. Interview 2014). Another downside to assigning subsidiaries with specific targets is if a product owner perceives that being included in the portfolio will lead to tougher overall sales targets. When already having difficulties in reaching the existing targets the motivation to contribute to the *Positive Impact* portfolio and getting an additional target will be low. Therefore, it is important to consider the procedure of breaking down the target (Environmental Specialist, Business Development,

BA2. Interview 2014b) and to have an open discussion with the subsidiary. In this discussion it is important to concretely address how the subsidiaries can reach its targets and what resources are needed in order to get there (Global Product Manager, BA2. Interview 2014). Another suggestion is that instead of formulating the target in numbers, the target could be expressed in terms of demands on the development process and the number of projects that shall be linked to the *Positive Impact* portfolio (Team Manager Communication, BA2. Interview 2014).

## **5.4 Differences in implementing *Positive Impact* in business areas**

In different industries different challenges have been faced with regards to integrating *Positive Impact* into daily operations and to stimulate customer demand for environmental products. Since the *MECH Group* is a B2B company it takes a long time for consumer concerns and pressure to reach and have an effect on the *MECH Group's* business (CEO. Public Presentation 2014). Instead, it is investor pressure and legislations that have an impact on the *MECH Group's* and its customers, which in turn approach the *MECH Group* and demand environmental friendly solutions. Therefore, environmental legislation such as cap and trade or certain technologies being promoted or removed as well as penalties, is positive for *Positive Impact*. Moreover, environmental issues are more recognised and focused on in some industries than in others (Director Corporate Sustainability, HQ. Interview 2014).

### **5.4.1 Coinciding market and *Positive Impact* requirements in Business Area One**

In Business Area One, EU legislation is setting high requirements on the *MECH Group's* customers (Director Corporate Sustainability, HQ. Interview 2014; Manager Innovation Process, BA1. Interview 2014a; Business Development Manager, BA1. Interview 2014). As expressed by the Manager of Innovation processes, legislation is heavily pushing this industry:

*“Of course, legislation is pushing like hell for CO<sub>2</sub> reductions. So here it is where we potentially have highest possibilities.”* (Manager Innovation Process, BA1. Interview 2014b)

In this industry, the *MECH Group* as well as its competitors have been working with improving environmental performance of products for a long time in order to reduce emissions for their customers, even before the *Positive Impact* portfolio was initiated (Director Corporate Sustainability, HQ. Interview 2014; Manager Innovation Process, BA1. Interview 2014a; Business Development Manager, BA1. Interview 2014). Therefore, in Business Area One customer requirements and *Positive Impact* portfolio requirements coincide and products with enhanced environmental performance are developed in order to meet market demand and cre-

ate a good fit (Business Development Manager, BA1. Interview 2014; Manager Innovation Process, BA1. Interview 2014a). More specifically, the Manager of Innovation processes states that it is an imperative to either offer price reductions or CO<sub>2</sub> reductions in order to sell anything in this market:

*“If we won’t develop such offers the market won’t buy from us. So it is very simple, [this] industry is very simple today: You offer cost reductions or price reductions or you offer CO<sub>2</sub> reductions.”* (Manager Innovation Process, BA1. Interview 2014a)

As a result, Business Area One contributes with a significant amount of products to the portfolio. A Business Development Manager presented three solutions to the *Positive Impact* board, which were included into the portfolio. Yet, these products had been developed due to customer demands a long time before the portfolio was launched. Consequently, the Business Development Manager does not see any direct benefits for driving innovation towards environmental sustainability from the *Positive Impact* portfolio as such, but regards it as a pleasant supplement to what he is working with. According to him, this industry is working in these lines anyhow and reducing environmental impact is not something new (Business Development Manager, BA1. Interview 2014). This is even consistent across different geographical regions, as the USA and Europe have adopted similar legislation and in Asian countries customers look at the newest trends in the USA and Europe (Global Segment Manager 2, BA1. Interview 2014). As a Marketing and Communication Manager perceives, the *Positive Impact* portfolio becomes more of a communication strategy, where focus is on how to package products neatly, as customers demand these products anyhow. Hence, there are only minor benefits on a product level (Segment Marketing and Communication Manager, HQ. Interview 2014): The portfolio is beneficial for increasing internal knowledge about the product and marketing the product by leveraging more on concrete CO<sub>2</sub> reductions as perceived by a global segment manager (Global Segment Manager 3, BA1. Interview 2014). However, the main benefits are reaped on a more general communication level in terms of branding the *MECH Group* as a company that takes environmental sustainability seriously (Segment Marketing and Communication Manager, HQ. Interview 2014).

#### **5.4.2 Conflicting market and *Positive Impact* requirements in Business Area Two**

In those industries where there is a lack of environmental legislation and the potential savings are not evident to the customer, from a customer perspective the incentive to invest in technology with better environmental performance is not strong enough (Business Engineer, BA2. Interview 2014). This is even dependent on the geographical region, for example in Asia envi-

ronmental sustainability has not gained as high priority as in USA or Europe. As a result, in industries where a lot of production takes place in Asia, the *MECH Group* faces different conditions: In these regions, economic growth on a national level is more important than environmental sustainability and hence, the *MECH Group's* value proposition of enhanced environmental performance does not fit the customer interest (Global Product Manager, BA2. Interview 2014; Team Manager Communication, BA2. Interview 2014). In fact, in some segments environmental performance is not a selling argument. Consequently, in Business Area Two targeting these markets, there is a conflict between the corporate requirement to develop products with enhanced environmental performance and at the same time deliver profitable results from the market. Thus, in the current situation resource allocation proves difficult, however, if these requirements were aligned it would be clear to dedicate resources to meet HQ demand (Global Product Manager, BA2. Interview 2014). With conflicting demands it is a constant balancing act between the effort put on developing solutions and their potential return on investment (Team Manager Communication, BA2. Interview 2014).

Still, in some industries in Business Area Two customers have recognised the potential to save money by investing in more energy efficient solutions. More specifically, mature markets and industries where the *MECH Group* directly targets the end user are more prone to care about environmental sustainability (Team Manager Communication, BA2. Interview 2014; Business Engineer, BA2. Interview 2014). The industry matureness in turn, is dependent on legislation and it comes down to internalising externalities such as environmental impact. The *MECH Group* and its customers have to anticipate how legislation and hence, the market will develop. As perceived by the *MECH Group* Director of Corporate Sustainability, legislation is developing and becoming more broad and challenging across industries around the world. These trends are favourable for *Positive Impact* and it is therefore important that the *MECH Group* communicates these trends to customers in a way which is relevant for the customers (Director Corporate Sustainability, HQ. Interview 2014). For example, one product was developed in Business Area Two that lowered the energy costs of the customer by 10 per cent (Business Engineer, BA2. Interview 2014). In addition, the *MECH Group's* products can have other benefits from an environmental and economic perspective, as for example less use of lubricants (Marketing and Sustainability Manager, BA2. Interview 2014). In total, customers have signed off that by using the *MECH Group's* products and solutions they were able to save several billion SEK (CEO. Public Presentation 2014).

### 5.4.3 Salespeople's struggle identifying with *Positive Impact*

Even though there are cost-saving potentials and many companies today have environmental targets, in many industries environmental targets remain poorly integrated. For example, when a *MECH Group* salesperson meets with a purchaser, this person often has limited understanding of his or her company's environmental targets and how he or she through this purchase impacts environmental performance by choosing a *Positive Impact* product. Thus, it is up to the *MECH Group* salesperson to bring up the question about environmental performance, since customers in these industries do not ask about it, as the Environmental Specialist explains:

*"I mean they have, our customers, we know they have environmental targets and requirements are put on them. It is also possible for them to earn money with the environment. If we go and talk to a purchaser or a constructor and so on, they don't even know their own environmental targets. They don't know. Because they are also struggling with integrating [environmental sustainability]. [...] We are, I can say, one of the best. Understand how difficult it gets then. Juggling with smoke [...]. The only thing I can do is to bring up the question [...] 99 out of 100 times the customer doesn't ask you."* (Environmental Specialist, Business Development, BA2. Interview 2014a)

Therefore, it is important to develop more concrete selling arguments based on environmental performance so that salespeople can tell the customer exactly how the *Positive Impact* product affects their operations and costs. This is an area for improvement which is recognised by a marketing and sustainability manager (Marketing and Sustainability Manager, BA2. Interview 2014).

## 5.5 Recent development and changing attitudes

From an internal perspective, since the *Positive Impact* portfolio is a relatively new strategy it takes some time to communicate internally and to reach matureness. After the initial phase when all unambiguous products are included in the portfolio, *Positive Impact* reaches saturation, as it is more challenging to identify which products to include next and how to handle possible trade-offs between different environmental benefits. This challenge can be overcome when individuals start to identify with *Positive Impact*, leading to increased ownership (Team Manager Communication, BA2. Interview 2014). Besides, since its launch the portfolio has become more concrete and processes have become more standardised, which facilitates integration. Therefore, during the last few months product owners have started to take initiative

and approached the *Positive Impact* board with their solutions. This is a great leap forward from chasing after potential portfolio products (Environmental Specialist, Product Development, BA2. Interview 2014), and a big change in attitude has become apparent (Team Manager Communication, BA2. Interview 2014). Moreover, due to the approaching deadline for the 2016 sales target, the *Positive Impact* portfolio has gained weight on managers' agendas. As it becomes of greater importance for managers, it becomes more visible further down in the organisation as well. Hence, the transformation within business development is positive, yet, in the sales organisation the link to the portfolio is still not as evident (Environmental Specialist, Product Development, BA2. Interview 2014). Since the sales organisation is the direct link to the customers and the one who brings products to the market it is crucial that these people feel comfortable in promoting *Positive Impact* products. However, it seems like today, they feel the least comfortable talking about the portfolio and thus, the *MECH Group* has to review working processes with *Positive Impact* in the sales organisation, as explained by a Marketing and Communications Manager:

*"[...] It is within the sales organisation that we probably need to look over how we work with [Positive Impact]. Because, after all, it is they who bring [Positive Impact] out to the customers and I think that, today, they are the ones that feel the least comfortable talking about the [Positive Impact] concept."* (Segment Marketing and Communication Manager, HQ. Interview 2014)

It is important to reach the critical mass in order to achieve a snowball effect and as mentioned, in order to diffuse ownership for the *Positive Impact* many individuals must identify with it (Team Manager Communication, BA2. Interview 2014). One way to create this feeling internally is by communicating about the portfolio externally, like the CEO does. Every time the portfolio is mentioned, the internal identification increases as it is understood that this is something that should be prioritised (Environmental Specialist, Product Development, BA2. Interview 2014).

From an external perspective, as legislation is moving towards decreasing environmental impact, awareness among consumers, customers and competitors will follow thereafter, resulting in an increased market matureness with regards to environmental sustainability (CEO. Public Presentation 2014). Consequently, when customers ask the *MECH Group* after products with better environmental performance and salespeople in turn approach product development it will increase the organisational drive for the portfolio (Team Manager Communication, BA2.

Interview 2014). The CEO of the *MECH Group* compares the process to a ketchup bottle where in the beginning it is hard to get things going but after a while it runs smoothly. By selling more to existing customers rather than finding new ones the *MECH Group* can accelerate its business at a higher rate. Thus, another important aspect is to continually innovate and bring new products and solutions to the *MECH Group's* customers. In addition, the CEO sees three key success factors for environmental sustainability namely (1) creating commitment to the *Positive Impact* strategy, (2) making environmental sustainability relevant to people, and (3) integrating environmental sustainability so when tough times come it will not be cut (CEO. Public Presentation 2014).

## 6 ANALYSIS

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*In the following section the empirical findings are analysed with help of the conceptual framework (Figure 1). Subsidiary embeddedness and the resulting subsidiary management squeeze are analysed, based on findings from the MECH Group. Further, it is discussed that the Positive Impact portfolio does not impact subsidiaries' innovations up until this point. Yet, the deadline for reaching the communicated sales target is approaching and therefore, an examination of increasing HQ pressure, leading to greater need for procedural justice and boundary spanners concludes this chapter.*

### **6.1 The impact of dual embeddedness on subsidiary behaviour**

The *MECH Group's* subsidiaries are embedded in various external environments (cf. Ghoshal & Bartlett, 1990; Forsgren, 1990; Andersson & Forsgren, 1996; Dellestrand, 2011). Subsidiaries work closely together with customers in order to develop products and solutions. Moreover, subsidiaries are impacted by suppliers and with regards to the *Positive Impact* portfolio, cooperation with suppliers and customers is necessary for the life-cycle assessment (LCA). Further, subsidiaries' operations are influenced by local legislation that regulates the customers' industries, for example in terms of environmental impact. Therefore, the empirical data shows that the *MECH Group's* subsidiaries are part of an industrial network and functionally linked to other players in this network via transactions of physical goods and/or knowledge (cf. Forsgren, 1990). Many of the *MECH Group's* subsidiaries were established a long time ago. Since the degree of embeddedness is path dependent and a function of time, adaptation of resources and interdependence of activities (Andersson et al., 2001; Forsgren et al., 2005), one can state that the *MECH Group's* subsidiaries are highly embedded in their external network. This in turn implies that the external environment strongly influences subsidiaries' behaviour, which decreases the perceived level of control by HQ (cf. Andersson & Forsgren, 1996). Furthermore, depending on their network position and resource independence, subsidiaries can gain significant power (Forsgren & Pahlberg, 1992). As a result, one can conclude that it is difficult for the corporate HQ to reach out with the *Positive Impact* strategy, given the high degree of external embeddedness and autonomy of its subsidiaries.

Yet, not only are subsidiaries embedded in an external environment, but also in the corporate network, which can put opposing requirements on the subsidiary (Andersson & Forsgren, 1996; Ciabuschi et al., 2014). In the case at hand, it becomes clear that subsidiaries face this dual embeddedness and the challenges that come along in terms of the *Positive Impact* portfolio. Thus, there are requirements from the market to develop certain types of products and



solutions at the same time as there are requirements from corporate HQ to contribute to the *Positive Impact* portfolio. To some extent, these requirements go hand in hand, for example in Business Area One. In this industry customers demand energy efficient solutions due to specific legislative obligations and therefore, developing solutions that meet customer demand is in line with *Positive Impact*. Thus, there is a win-win situation between environmental sustainability and business performance (cf. Hart & Milstein, 2003). As a result, Business Area One contributes with numerous solutions to the portfolio. Also in Business Area Two there are cases where market and corporate demands go along.

However, there are industries, which Business Area Two operates in, where enhanced environmental performance is not demanded by the *MECH Group*'s customers. This is attributed to the lack of legislative pressure in these industries, the low level of economic development in the host country as well as short-term thinking. Hence, in accordance with the literature, it is important to note that the external environment differs from industry to industry and from country to country, impacting subsidiaries in different ways (Ghoshal & Bartlett, 1990; Ciabuschi et al., 2011a; Ciabuschi et al., 2014; Forsgren, 1990). In those markets where enhanced environmental performance is not demanded, there are clearly opposing requirements put on subsidiaries: On the one hand, subsidiaries have to meet market demands and be profitable. On the other hand, subsidiaries shall contribute with solutions to the *Positive Impact* portfolio. This poses a significant challenge and raises the question of how to balance efforts in product development and return on sales, and whether market or corporate demands are pursued by the subsidiary (cf. Ciabuschi et al., 2014). The empirical data shows that it is the market that steers operations of the *MECH Group* subsidiaries: When asked for the reason behind developing the product, all respondents who have presented a solution to the *Positive Impact* portfolio board answered that it was due to market demands. This is especially highlighted by the following example: In an interview with a business development manager in Business Area One, the word 'market' in association with 'requirement' was used 28 times in a 45 minutes interview. This shows the strong focus on market and customer demands at subsidiary level. Moreover, respondents in this business area repeatedly state that they are just doing what customers expect, which happens to be in line with *Positive Impact*. Even in Business Area Two, a business engineer explained that the reason behind developing the *Positive Impact* portfolio product was the great potential to save energy and thus money at the customer site. This shows that subsidiaries in the *MECH Group* are intensively driven by the external environment (cf. Andersson & Forsgren, 1996; Dellestrand, 2011).

The market's driving force is reinforced by the product development process at the *MECH*

*Group*: When developing a new solution it is compulsory during the development process to present a business case, hence demonstrate that the solution is demanded by the market. Subsequently, the solution is developed with a pilot customer and thus, solutions that are not demanded by the market can normally not proceed through the development process. This was not the case in the initial phase of *Positive Impact* when in 2005, corporate HQ pushed environmental products and solutions through the development process, disregarding the business case requirement. This early centralised process can be perceived as an advantage to get environmental solutions on the market, however excluding subsidiary management from the process and disregarding standard procedures led to subsidiary management resistance (cf. Kim & Mauborgne, 1991). Due to path dependency of decentralised initiative taking and the corporate culture focusing on the importance of measuring, the *MECH Group* quickly returned to the business case requirement.

### **6.1.1 The impact of embeddedness on subsidiary innovation**

Empirical findings indicate that the *MECH Group*'s subsidiaries are highly autonomous and therefore prone to being innovative (cf. Ghoshal & Bartlett, 1988) and taking initiative. However, corporate and external embeddedness impact subsidiary innovation in different ways. External embeddedness is found to be positively related to innovation-related business performance, whereas corporate embeddedness does not show any direct effect (Almeida & Phene, 2004; Ciabuschi et al., 2014). In the case of the *MECH Group* this is accurate due to the close cooperation with customers when developing new products and solutions. This is even manifested in the business case requirement. Hence, the *Positive Impact* portfolio, which is transmitted to subsidiaries as part of their corporate embeddedness, does not determine that more environmental products are developed up until this point. In fact it is the customers that drive innovation and product development within the *MECH Group*.

To promote subsidiary innovation and initiative, Hornsby et al. (2002) and De Clercq et al. (2011) suggest effective reward systems. For example, visibility and recognition in form of championing innovative ideas are informal rewards (Hornsby et al., 2002; De Clercq et al., 2011). In the *MECH Group* there are only few formal rewards linked to *Positive Impact* and informal rewards in form of visibility, recognition and championing are limited. In addition, initiatives at subsidiary level are pushed forward when they are perceived to have a significant impact on MNC performance or be the solution to a problem (De Clercq et al., 2011). In accordance, a business development manager from Business Area One emphasises that products which have been included in the portfolio have been developed due to customer demands (Business Development Manager, BA1. Interview 2014), hence, directly impacting MNC

performance. However, when looking at Business Area Two, initiatives linked to *Positive Impact* are not always perceived as performance enhancing due to lacking customer demand and are therefore not driven forward. Yet, this can be due to the relatively recent launch of the portfolio and the low maturity in some markets in terms of environmental sustainability. Nevertheless, by including the *Positive Impact* reasoning in the innovation process, the portfolio and hence, corporate embeddedness, gain influence over the innovation process.

According to Figueiredo (2011), subsidiaries become more innovative by tapping into knowledge of internal and external counterparts and integrating new knowledge into subsidiaries' internal capabilities (Figueiredo, 2011). Empirical findings show that subsidiaries are torn between external and corporate requirements. Since subsidiaries mostly focus on meeting short-term market requirements, their absorptive capacity, hence ability to recognise the value of future potential portfolio projects and turn them into commercial ends, is limited (cf. Cohen & Levinthal 1990; Andersson et al., 2001).

### **6.1.2 The impact of embeddedness on HQ power**

Alongside subsidiaries, corporate HQ is also embedded in an industrial network (cf. Forsgren, 1990), which impacts HQ's power vis-à-vis subsidiaries. In the case of the *MECH Group* this is exemplified by the importance of cooperation with a third-party auditor and an environmental NGO. Internally, these are a means of HQ to seize power and gain legitimacy to take actions over its subsidiaries. Firstly, by having third-party audits, HQ directly dictates through central validation how the work by subsidiaries shall be performed. Secondly, cooperating with an environmental NGO increases visibility and cost of failure, which puts pressure on the entire organisation. This in turn gives HQ legitimacy to put pressure on subsidiaries as well as shows that HQ is in charge (cf. Forsgren, 1990; Forsgren et al., 2005).

Externally, these cooperations increase credibility and avoid greenwashing. This shows that HQ does not act independently, but is impacted by other players in the industrial network. The auditing company impacted the *MECH Group* in the sense that the discussions led to more precise criteria and more exact internal working procedures. The environmental NGO in turn was involved in confirming the high ambition of the multibillion *Positive Impact* sales target, however it is clear that the target was formulated by the *MECH Group's* HQ. Thus, even though HQ is influenced by external players, one can state that it maintains a high level of discretion with regards to the portfolio.

## 6.2 Conflicting interests and subsidiary management squeeze

In recent years, MNC subsidiaries have gained a more active role (Cantwell & Mudambi, 2005; Birkinshaw et al., 2005; Bouquet & Birkinshaw, 2008), which implies that subsidiaries have greater responsibility for their operations. As subsidiaries are also part of the group, subsidiary managers face trade-offs on a daily basis, especially with regards to long-term values such as environmental sustainability (cf. Birkinshaw et al., 2000; Forsgren et al., 2005; Schotter & Beamish, 2011). As stated by a Business Development Manager “[...] *if we do not meet the requirements of the market [...] the market does not want [the product]*” (Business Development Manager, BA1. Interview 2014). Opposing requirements from corporate HQ on the one hand and the market on the other hand as a result of dual embeddedness lead to daily bargaining situations and a so-called subsidiary management squeeze (cf. Esty & Winston, 2006; Schotter & Beamish, 2011). Here, once again it becomes apparent that subsidiaries are highly driven by market demands and in subsidiaries working towards industries and geographical markets where the environment is not a main concern subsidiary management squeeze is substantial. This issue has only been identified in Business Area Two and a reasonable explanation is that this business area focuses on a wide range of industries with more or less concerns for the environment. However, it is reasonable to assume that when the sales target becomes tougher, subsidiary management squeeze will also become apparent in Business Area One. Therefore, in accordance with Schotter and Beamish (2011) conflicts arise about for example market and customer preferences, regulatory requirements and strategic misalignments (Schotter & Beamish, 2011).

As an example of subsidiary management squeeze, when discussing breaking down the sales target to specific subsidiaries, one respondent showed frustration about having to correspond to various concerns simultaneously. The respondent stressed that when facing competing short-term and long-term objectives, resources are mostly allocated to reaching short-term objectives. This reasoning is supported by Esty & Winston (2006) who state that in the end it is often the company’s core concerns, such as sales and profit margins that are focused on in performance evaluations instead of long-term objectives.

In the case at hand, it is apparent that in Business Area Two the *Positive Impact* portfolio leads to trade-offs with more acute short-term objectives such as meeting customer demands. To resolve the consequent subsidiary management squeeze, Esty and Winston (2006) suggest to train management and align incentives (Esty and Winston, 2006). Training management is a tool to make the portfolio relevant for subsidiaries in both business areas, which respondents from corporate HQ and subsidiaries imply there is a need for. Moreover, by training manage-

ment subsidiaries can be supported in identifying opportunities for developing and selling *Positive Impact* products. Further, aligning incentives entails integrating *Positive Impact* into performance evaluations. In this way, people within the organisation can identify with and develop a sense of ownership for the portfolio, which is currently lacking.

### **6.3 Limited impact of *Positive Impact* on subsidiaries**

Empirical findings show that despite constant focus on local ownership for the *Positive Impact* portfolio, up until this point the portfolio's reach is incomplete and its impact on daily operations at subsidiary level is limited. Theoretically, there are two options for the portfolio's impact on subsidiaries: Either the portfolio makes subsidiaries develop environmental products they would not otherwise develop, or the portfolio increases the amount of activities performed by subsidiaries within the development of environmental products. Yet, empirical findings demonstrate neither of these options.

Firstly, as stated, due to the high degree of external embeddedness of subsidiaries, the *MECH Group* HQ has limited leverage over its subsidiaries in terms of integrating the *Positive Impact* portfolio (cf. Andersson & Forsgren, 1996). The autonomous subsidiaries' (cf. Forsgren & Pahlberg, 1992) aim to fulfil market requirements is identified as key focus area and interviewees confirmed its importance. As a result, empirical findings indicate that the *Positive Impact* portfolio has not reached out to those units closest to the market. Especially in Business Area One, one can conclude that as of today the *Positive Impact* portfolio is a communication strategy instead of an innovation strategy, focusing on packaging products in a neat way. Yet, on a single product level the portfolio's benefits are not evident (Segment Marketing and Communication Manager, HQ. Interview 2014). This perception is confirmed by a global segment manager in Business Area One who states that the only benefit from including a product in the portfolio is that by performing all calculations for inclusion, product owners gain greater knowledge about the product's CO<sub>2</sub> reductions and have better selling arguments (Global Segment Manager 3, BA1. Interview 2014). Yet, even this benefit is linked to communication instead of innovation. Further, on a corporate level, *Positive Impact* leads to benefits in terms of branding and positioning the *MECH Group* as a sustainable company. However, these are benefits that concern HQ instead of subsidiaries and as a result, ownership for the portfolio only reaches down to divisional HQ.

Secondly, at the point of this study, the communicated sales target has only been broken down to business area level. Each business area has been given the mandate to take decisions on how to reach its assigned target. However, empirical findings reveal that these targets only

reach the divisional HQ, as a business engineer at subsidiary level comments on the existence of specific targets: “*I actually don’t know. [...] Not what I know of, no.*” (Business Engineer, BA2. Interview 2014). Therefore, empirical findings show that local product owners do not feel any pressure coming from the *Positive Impact* sales target, which in turn implies that the portfolio has not reached subsidiary level. Instead, subsidiaries continue to be highly focused on market demands and their industrial network. As suggested by the literature, subsidiaries can become powerful depending on the degree of involvement in a network, interdependencies with local units and resource interdependence (Forsgren & Pahlberg, 1992). In accordance, the *MECH Group* subsidiaries are powerful vis-à-vis HQ due to their high degree of involvement with local actors and their interdependencies in terms of product development. This is further in line with Andersson and Forsgren (1996) and Forsgren et al. (2005) who state that the more subsidiaries are embedded in their external environments, the more the external environment competes with HQ control, bearing in mind that these interests may not be in accord (Andersson & Forsgren, 1996; Forsgren et al., 2005). In order to seize power over subsidiaries and to steer them towards *Positive Impact*, the sales target must be broken down to a more detailed level, as a means to get *Positive Impact* on subsidiary managers’ and product owners’ agendas. This is attributed to the fact that measurable targets put the spotlight on subsidiaries’ actions and make it difficult to hide, hence, targets function as a formal control mechanism (cf. Andersson & Forsgren, 1996). As identified by the CEO, sense of ownership and responsibility are transferred to subsidiaries by assigning specific targets (CEO. Discussion 2014). Moreover, by doing so, the *Positive Impact* portfolio’s reach is expanded to subsidiary level. After all, the corporate culture has been described as “*if you can’t measure it, it doesn’t exist*” (Rosén, 2011:59).

Lastly, in the sales organisation it becomes especially evident that the *Positive Impact* portfolio lacks in implementation. Due to the fact that the sales organisation is closest to customers and highly embedded in the industrial network (cf. Forsgren, 1990) it is important that salespeople have the ability and drive to identify customer needs and opportunities with regards to environmental products and solutions (cf. Esty & Winston, 2006). From interviews with environmental specialists it has been implied that salespeople lack the ability to make *Positive Impact* relevant for their customers when there is no explicit market demand (Marketing and Sustainability Manager, BA2. Interview 2014; Environmental Specialist, Business Development, BA2. Interview 2014a). Therefore, there is a need for more concrete selling arguments based on environmental performance and training on how to use the available tools so that salespeople feel comfortable promoting *Positive Impact* products (Marketing and Sustainabil-

ity Manager, BA2. Interview 2014; Segment Marketing and Communication Manager, HQ. Interview 2014). By providing salespeople with tools and selling arguments that are concrete to them, the *Positive Impact* portfolio becomes relevant for them, which in turn increases salespeople's identification with *Positive Impact*. However, the relevance of *Positive Impact* for the sales organisation is also dependent upon the matureness of the market in terms of environmental sustainability. When customers become more aware of and demand environmental solutions, the *Positive Impact* portfolio will come on *MECH Group* salespeople's agendas. Still, in many industries the market has not reached this level of matureness yet, leading to conflicting requirements on salespeople: On the one hand they shall increase sales and on the other hand they shall sell *Positive Impact* products that may not be demanded by the market. Consequently, it is natural for salespeople to aim for easier deals, so-called 'low-hanging fruits', instead of tackling the challenge of selling environmental solutions.

Therefore, it is all the more important to increase identification with the portfolio at subsidiary level, and in particular within the sales organisation, when basing it on local ownership. By doing so, subsidiaries are in a better position to identify and anticipate market potential for developing and selling *Positive Impact* solutions.

#### **6.4 Increasing HQ pressure and importance of procedural justice**

As the date for reaching the externally communicated sales target is coming closer, pressure from HQ on subsidiaries is continuously increasing. Looking back, during the initial stage of *Positive Impact*, it was implemented in a top-down approach, which implied great HQ pressure on the organisation. During this process the traditional role of corporate HQ being the brain which controls the organisation is evident (cf. Ciabuschi et al., 2012b) and the *Positive Impact* was market driving through the technology push that created demand for environmental solutions. When the *MECH Group* attempted to move ownership for the *Positive Impact* portfolio from corporate HQ to subsidiaries, empirical findings show that corporate HQ has become a puppet on a string with limited ability to put pressure on its subsidiaries (cf. Ciabuschi et al., 2012b). This has resulted in a market-driven portfolio, as products with environmental benefits are not pushed onto the market. Yet, as HQ pressure increases, the corporate HQ is once again becomes a brain that pushes the portfolio onto the organisation. This demonstrates that the role of HQ oscillates like a pendulum between being brain and puppet on a string (cf. Ciabuschi et al., 2012b) when HQ pushes the organisation in recurrent phases and then again gives subsidiaries more freedom.

However, HQ's oscillating role is a result of the fact that there is limited central staff to manage the portfolio, hence, it has to be based on local ownership with a facilitating HQ role (*Positive Impact* Portfolio Manager, HQ. Interview 2014a). When the communicated target approaches and cost of failure increases, HQ once again takes an active role to steer subsidiaries to take ownership and responsibility for the portfolio. Thus, the HQ role is not a purely strategic decision but driven by organisational and external conditions.

In order to succeed with transfer of ownership and sense of responsibility further down in the organisation, it is crucial that subsidiary managers at the *MECH Group* perceive that there is procedural justice. As procedural justice affects commitment, trust and harmony, it can decrease the perceived degree to which the portfolio is pushed upon subsidiaries (cf. Kim & Mauborgne, 1993a). As emphasised by a global product manager at the *MECH Group* there is commitment towards the portfolio, however subsidiaries lack concrete guidance and tools to implement and identify with *Positive Impact* (Global Product Manager, BA2. Interview 2014). Therefore, it is important to have an open discussion between corporate HQ and the subsidiary responsible for fulfilling the target and to identify how corporate HQ can support the subsidiary and vice versa. This is supported by Kim & Mauborgne (1991; 1993b), who stress the importance of two-way communication, the possibility for subsidiaries to challenge HQ reasoning and HQ knowledge about the local situation of subsidiaries (Kim & Mauborgne, 1991; Kim & Mauborgne, 1993b). It is further emphasised that in order to be able to influence subsidiaries' activities, HQ must understand subsidiaries' external environment and identify important actors participating and influencing subsidiaries (Forsgren et al., 2005; Ciabuschi et al., 2012a). Consequently, as emphasised by Dellestrand (2011) and Mahnke et al. (2012) regional HQ or divisional HQ are gaining importance when corporate HQ compensates for its knowledge disadvantage (cf. Dellestrand, 2011; Mahnke et al. 2012). In the case at hand, the *MECH Group* operates in a large number of industries, hence, corporate HQ cannot be knowledgeable to a high degree about the local environment of each industry. Therefore, corporate HQ's knowledge can be increased by open two-way communication with subsidiaries and divisional HQ.

Further, in the case of the *MECH Group* subsidiaries have a high degree of autonomy, which increases the need for procedural justice even more (cf. Kim & Mauborgne, 1993b). Empirical data about the development of the first *Positive Impact* products shows that disregarding procedural justice raises resistance within the organisation at the same time as HQ legitimacy decreases. As discussed in the previous section, when breaking down the sales target, HQ in fact restricts subsidiaries' autonomy and therefore, resistance at subsidiary level is expected.



Consequently, it is all the more important to find a way to have subsidiary management on board. As suggested by Kim & Mauborgne (1993b), procedural justice can be a countervailing measure that motivates subsidiary managers to implement and execute HQ strategic decisions (Kim & Mauborgne, 1993b). Thus, procedural justice impacts the success of integrating *Positive Impact* into strategy at subsidiary level.

Due to the fact that the *MECH Group* is a network MNC in a dynamic environment, it is important to be aware that HQ can potentially harm and demotivate subsidiaries by intervening (cf. Foss et al., 2012). When and how HQ interventions at subsidiary level add to or destroy value creation of the MNC is important to determine (Ciabuschi et al., 2011a; Ciabuschi et al., 2012a). When breaking down the sales target to subsidiary level, the risk is that motivation to contribute to the portfolio decreases as inclusion implies an additional target. However, it is not always easy to anticipate the effect of HQ intervention, as for example HQ pushing for the development of the first *Positive Impact* products created resistance at first, but added value in the long-term. Again, procedural justice including two-way communication and HQ knowledge about the subsidiary's local environment mitigates the risk for harmful HQ intervention (Foss et al., 2012).

## **6.5 The role of boundary spanners to increase identification**

As a means to facilitate and promote two-way communication, the *Positive Impact* board and team have been put in place. Their function can be compared to what Schotter & Beamish (2011) refer to as 'boundary spanners'. It is suggested that boundary spanners are an effective means for handling the complex dynamics of integration and responsiveness and for minimising the risk of conflict (Schotter & Beamish, 2011). Firstly, in the *Positive Impact* board, people from different group functions as well as business areas are represented with the aim to contribute with expertise to the board and at the same time spread knowledge about *Positive Impact* to the functional groups. Secondly, the *Positive Impact* team has been established to create an additional and more practical link between the board and operational functions. The reasoning behind the board and the team is in accordance with Harvey et al. (2001) who state that boundary spanners are able to improve the relationship between HQ and subsidiaries and open up for exchange of different insights (Harvey et al., 2001). However, all members of either board or team are located at corporate or divisional HQ and this empirical study shows that since the portfolio has not reached out to subsidiaries, it is reasonable to conclude that the boundary spanners are located too high up in the organisation and that an additional level of boundary spanners is needed further down in the organisation.

In Business Area Two, an environmental specialist recognised the need for a network for exchanging ideas and experiences at an operative level (Environmental Specialist, Business Development, BA2. Interview 2014b). Members of this informal network also function as boundary spanners (cf. Harvey et al., 2001; Schotter & Beamish, 2011). As put forward by the literature, it is important to create an environment where boundary spanners can thrive as well as become embedded in local and corporate contexts (Schotter & Beamish, 2011). As a result of becoming embedded in both contexts, boundary spanners increase identification with *Positive Impact* as well as become legitimate ambassadors to diffuse this attitude to subsidiaries. Boundary spanners' legitimacy is grounded in their role as bi-cultural interpreters, national advocates and defenders, and front-line implementers (cf. Vora et al., 2007) and thus, it is crucial that they are located at subsidiary level (Schotter & Beamish, 2011).

However, this informal network has not reached its full potential yet. There is a desire to increase the number of members as well as the network's diversity as today, it is limited with regards to the number of people included, the time dedicated and the geographical spread (Environmental Specialist, Business Development, BA2. Interview 2014b). Therefore, managers have to become aware of the network's importance, and to assign time to work with *Positive Impact*. When doing so the network increases local ownership within the organisation and acts as a platform for exchanging experiences within and between subsidiaries and business areas (cf. Harvey et al., 2001). In addition, increased local ownership and an exchange of ideas enable a transition from a market-driven portfolio to an innovation-driven portfolio. As the *MECH Group* as a whole becomes more knowledgeable and engaged with *Positive Impact*, the ability to identify hidden needs and work beyond 'low-hanging fruits' increases. As a result, the *MECH Group* once again can shape the market for environmental solutions and move the industry towards environmental sustainability.

# 7 CONCLUSION

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*In this final chapter the main findings about how HQ-subsidary dynamics shape the integration of environmental sustainability into strategy are presented. Further, the study's contribution to research is discussed. The discussion is followed by a presentation of managerial implications, more specifically three suggestions for how to perform this integration across dispersed and locally embedded units. Lastly, suggestions for future research are outlined.*

## 7.1 Integrating sustainability across dispersed subsidiaries

There is a need for more empirical studies of both integration of environmental sustainability into strategy and environmental portfolios. Thus, the purpose of this study was to analyse how MNCs integrate environmental sustainability into strategy across dispersed subsidiaries with an environmental portfolio approach, to answer the question “*How do HQ-subsidary dynamics shape the integration of environmental sustainability into strategy?*”. This study shows that contrary to what has been claimed by Savitz and Weber (2007) and Crittenden et al. (2011) environmental portfolios do not impact subsidiaries' daily operations when subsidiaries are highly embedded in their local environments. In such situations HQ has difficulties overcoming subsidiaries' local embeddedness and integrating environmental sustainability into strategy. Hence, environmental portfolios are no fast means to integrate environmental sustainability into strategy across dispersed subsidiaries. Instead, environmental portfolios and environmental sustainability in general are a HQ priority due to the long-term focus and potential conflict with market demands. When integrating environmental sustainability into strategy, the role of HQ oscillates between brain and puppet on a string (cf. Ciabuschi et al., 2012b) as a result of organisational and external conditions. With these main findings this study contributes to the discussion about environmental portfolios and links the literature fields of *Sustainability* and *International Business*.

*Sustainability* literature addresses the issue of ‘middle management squeeze’ and trade-off between short-term and long-term priorities. In a similar manner, *International Business* literature frames the issue of trade-off in terms of subsidiaries facing conflicting interests between external and corporate environments as a result of dual embeddedness. By combining the two literature streams, this study contributes to academia by reframing the discussion about sustainability in terms of HQ-subsidary dynamics. Furthermore, this empirical study shows that the relationship between HQ and subsidiaries is a highly complex one as the decisive influence on subsidiaries oscillates between HQ pressures and external demands, depending on perceived cost of failure from a HQ perspective.

## 7.2 Managerial implications

This empirical study arrives at several implications for management: Communicating a multi-billion portfolio sales target in cooperation with an environmental NGO as well as having third-party review puts substantial pressure on the organisation by increasing visibility and cost of failure. This is especially important from a HQ perspective, as the environmental portfolio is linked to branding and positioning the company as sustainable. Nevertheless, this empirical study finds that the portfolio has little meaning for dispersed subsidiaries when it does not impact their daily operations. Instead, it becomes clear that the market is the main driver for product development as subsidiaries are highly embedded in their local environments (cf. Ghoshal & Bartlett, 1990; Forsgren, 1990; Almeida & Phene, 2004; Ciabuschi et al., 2011a; Ciabuschi et al., 2014). This can lead to ‘business as usual’ and a win-win situation when the market demands environmental solutions or trade-offs when market and corporate demands differ, which in turn leads to subsidiary management squeeze (cf. Esty & Winston, 2006). This conflict can lead to subsidiaries targeting ‘low-hanging fruits’ which are in line with subsidiaries’ short-term objectives instead of investing in long-term environmental sustainability. Therefore, this empirical study shows that the portfolio has to become a natural part of working procedures for subsidiaries. Especially when conflicting requirements exist, subsidiary management squeeze (cf. Esty & Winston, 2006) needs to be reduced and identification with the portfolio increased. Hence, HQ must make environmental sustainability meaningful for its dispersed subsidiaries, resulting in an MNC that leads the market towards environmental sustainability.

First of all, one way of achieving this is by having so-called boundary spanners (cf. Schotter & Beamish, 2011), who function as a bridge between subsidiaries and corporate and divisional HQ. The advantage of a network of boundary spanners is that it increases and spreads knowledge about the portfolio at the same time as it involves people to actively engage in it. The network also provides a platform for making visible and recognising the work of portfolio product owners, which are informal rewards that promote subsidiary initiatives (cf. Hornsby et al., 2002; De Clercq et al., 2011). This leads to increased sense of local ownership and responsibility. To augment the network’s impact, it is recommended to include a variety of operational levels and geographical areas, as well as product development and sales. Members of the network act as ambassadors within their segment and the network’s success is dependent on people’s personal engagement. Therefore, it is important to identify people that are passionate about the environment and that the organisation shows attention and appreciation for their work.

Secondly, empirical findings show that only when a communicated sales target is broken down to subsidiary level, the sales target and thus, the portfolio reach a high level of relevance at subsidiary level and get on subsidiary managers' agendas. Thus, it is important that the portfolio is included in performance reviews. Nevertheless, when breaking down the target there is a risk for compromising with portfolio requirements when at subsidiary level one aims at increasing the sales volume just to reach the assigned target, leading to a hollowing out of the environmental portfolio. In addition, a tougher sales target at subsidiary level may negatively impact motivation to contribute to the portfolio. When assigning specific targets it is therefore crucial to have an open discussion with subsidiaries. This highlights the importance of procedural justice. As procedural justice impacts trust, commitment and harmony (Kim & Mauborgne, 1993a) being procedural just increases the sense of local ownership and engagement as well as motivation. Furthermore, it mitigates the risk of HQ interventions being harmful (Foss et al., 2012) and HQ losing legitimacy.

Thirdly, in order to make the portfolio relevant and concrete for subsidiaries there is a need for tangible tools and selling arguments, which increase the absorptive capacity of the organisation (cf. Cohen & Levinthal, 1990; Andersson et al., 2001). When environmental performance becomes an inherent parameter for customers it becomes a natural part of subsidiaries' focus. Yet, in industries where the market has not reached this level of maturity, subsidiaries have to have tools to identify hidden needs to be able to push a greater range of environmental products onto the market. Tangible tools can be developed by compiling reference cases, guidelines and calculation models to be able to illustrate the benefits customers gain from environmental products. This also requires training salespeople so that they grow comfortable promoting environmental solutions (cf. Esty & Winston, 2006). Training opportunities can also function as a forum for exchanging knowledge and experiences, as well as championing innovative ideas (cf. Hornsby et al., 2002).

To conclude, one can state that when market demands and environmental sustainability converge, environmental sustainability becomes a natural part of every-day business. However, in order to drive this development, the sustainable company has to create market demand for environmental products. Hence, to fully integrate environmental sustainability into strategy, it has to overcome the resistance by existing structures that often exists in well-established and large corporations.

### 7.3 Recommendations for future research

This empirical study shows that there is a need for further research investigating environmental portfolios. As this study focuses on a single case and finds inconsistencies with previous theory about environmental portfolios, expanding the scope to other MNCs with this strategic approach will give a broader understanding of environmental portfolios and further test existing theories. Moreover, as this study has demonstrated, future research within *Sustainability* can make use of concepts within *International Business*, such as HQ-subsubsidiary dynamics, power relations, subsidiary embeddedness and procedural justice. Besides, it is important that future research looks into the issue of path dependency, as the success of implementing sustainability into strategy is foremost dependent on the ability of the MNC to adopt new organisational practices. By doing so and by developing best practice studies about environmental portfolios, research can help practitioners. Moreover, since this study has been conducted at a single point in time during a critical phase approaching the first communicated sales target's deadline, conducting the study at the *MECH Group* again will result in different findings. When expanding the scope to respondents that presented products, which were developed after the portfolio was implemented, one may find that the portfolio has a greater impact on the innovation process. One year from now, one will most likely find that the environmental portfolio as well as some industries have become more mature and that HQ pressure on subsidiaries is further increasing as the sales target of 2016 is approaching.

# LIST OF INTERVIEWS

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*All interviews were conducted by both authors.*

Business Development Manager, BA1. Interview 2014. Gothenburg, Sweden, March 19, 2014.

Business Engineer, BA2. Interview 2014. Gothenburg, Sweden, March 20, 2014.

CEO. Public Presentation 2014. Gothenburg, Sweden, March 25, 2014.

CEO. Discussion 2014. Gothenburg, Sweden, March 25, 2014.

Director Corporate Sustainability, HQ. Interview 2014. Gothenburg, Sweden, March 7, 2014.

Environmental Specialist, Business Development, BA2. Interview 2014a. Gothenburg, Sweden, February 28, 2014.

Environmental Specialist, Business Development, BA2. Interview 2014b. Gothenburg, Sweden, April 9, 2014.

Environmental Specialist, Product Development, BA2. Interview 2014. Gothenburg, Sweden, February 25, 2014.

Global Product Manager, BA2. Interview 2014. Gothenburg, Sweden, April 11, 2014.

Global Segment Manager 1, BA1. Interview 2014. Gothenburg, Sweden, March 27, 2014.

Global Segment Manager 2, BA1. Interview 2014. Gothenburg, Sweden, April 11, 2014.

Global Segment Manager 3, BA1. Interview 2014. Gothenburg, Sweden, April 15, 2014.

Internal Consultant, *MECH Group*. Interview 2014. Gothenburg, Sweden, March 3, 2014.

Manager Innovation Process, BA1. Interview 2014a. Gothenburg, Sweden, March 6, 2014.

Manager Innovation Process, BA1. Interview 2014b. Gothenburg, Sweden, April 9, 2014.

Marketing and Sustainability Manager, BA2. Interview 2014. Gothenburg, Sweden, April 8, 2014.

*Positive Impact* Board Member, HQ. Discussion 2014. Gothenburg, Sweden, March 25, 2014.

*Positive Impact* Portfolio Manager, HQ. Interview 2014a. Gothenburg, Sweden, February 6, 2014.

*Positive Impact* Portfolio Manager, HQ. Interview 2014b. Gothenburg, Sweden, February 17, 2014.

*Positive Impact* Portfolio Manager, HQ. Interview 2014c. Gothenburg, Sweden, March 20, 2014.

Segment Marketing and Communication Manager, HQ. Interview 2014. Gothenburg, Sweden, April 23, 2014.

Team Manager Communication, BA2. Interview 2014. Gothenburg, Sweden, April 11, 2014.

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# APPENDIX

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## Appendix 1.

### Background to the definition of ‘environmental portfolio’

Products with enhanced environmental performance are sometimes grouped in an environmental portfolio. Today, there is no clear definition of ‘environmental portfolio’ but companies that use the concept describe environmental portfolios as portfolios of products that fulfil a range of criteria with regards to reducing the negative impact on the environment. Below, the definitions given by companies with an environmental portfolio are presented:

#### *The MECH Group*

The definition of the company’s *Positive Impact* portfolio is that products, services and solutions included “must deliver significant environmental benefits [and] satisfy specific performance criteria when compared to a defined baseline, established and demonstrated by using credible methods such as life cycle assessments.” (MECH Group, 2012a:1).

#### *Company A*

The company states that in order to qualify for the environmental portfolio the offering must improve customers’ operating performance or value proposition and environmental performance. Moreover, this improvement must be significant as well as measurable (*Company A*, 2010).

#### *Company B*

The company’s environmental portfolio “consists of products, systems, solutions and services [...] that meet one of our selection criteria which are energy efficiency, renewable energy or environmental technologies. These elements reduce impacts on the environment and emissions of carbon dioxide and other greenhouse gases responsible for climate change. The reduction of impact is measured by comparison with reference solutions (baselines).” (*Company B*, 2013:2).

## Appendix 2.

### List of respondents at the *MECH Group*

Respondents (18)	Organisa-tional belonging	Placement	Interview method	Date(s)	Duration (total)
Business Development Manager	Business Area 1	Germany	Phone Recorder used	19 March 2014	45 min
Business Engineer	Business Area 2	Sweden	Face-to-face Recorder used	20 March 2014	1h
CEO	Corporate HQ	Sweden	Public presentation Face-to-face discussion	25 March 2014	1h 10 min
Director Corporate Sustainability	Corporate Sustainability	Sweden	Phone Recorder used	7 March 2014	30 min
Environmental Specialist – Business Development	Business Area 2	Sweden	Skype and Phone Recorder Used	28 Feb and 9 April 2014	1h 15 min
Environmental Specialist – Product Development	Business Area 2	Sweden	Phone Recorder Used	25 Feb	30 min
Global Business Development	Business Area 2	Sweden	Face-to-face Mingle	25 March 2014	10 min
Global Product Manager	Business Area 2	Sweden	Face-to-face Recorder used	11 April 2014	30 min
Global Segment Manager 1	Business Area 1	France	Skype Recorder used	27 March 2014	45 min
Global Segment Manager 2	Business Area 1	Germany	Face-to-face Recorder used	11 April 2014	30 min
Global Segment Manager 3	Business Area 1	Italy	Phone Recorder used	15 April 2014	25 min
Internal Consultant at the <i>MECH Group</i>	Internal Consultancy	Sweden	Face-to-Face Recorder used	3 March 2014	50 min
Manager Innovation Processes	Business Area 1	France	Phone Recorder used	6 March 2014, 9 April 2014	1h 15 min
Marketing and Sustainability Manager	Business Area 2	Sweden	Phone Recorder used	8 April 2014	45 min

<b>Respondents (18)</b>	<b>Organisa- tional belonging</b>	<b>Placement</b>	<b>Interview method</b>	<b>Date(s)</b>	<b>Duration (total)</b>
<i>Positive Impact</i> board member Finance	Finance	Sweden	Face-to-face Mingle	25 March 2014	10 min
<i>Positive Impact</i> portfolio Manager	Corporate Sustainability	Sweden	Face-to-face Recorder Used	6, 17, 25 Feb 2014 and 20 March 2014	7 h 55 min
Segment Marketing and Communication Manager	Communi- cation	Sweden	Face-to-face Recorder used	23 April 2014	40 min
Team Manager Communication	Business Area 2	Sweden	Face-to-face Recorder used	11 April 2014	40 min

## Appendix 3.

### Interview guide - HQ

*Respondent:*

*Date:*

#### Part 1: Chronology

1. When did you get involved in the *Positive Impact* strategy/project group?
2. What challenges did you experience regarding the new strategy?
3. Can you describe the development of *Positive Impact*?
  - a. During 2010 the project you focused a lot on how to define, measure and verify the compiling of environmental products.
    - i. How did the interaction between the project group and the rest of the organisation work?
    - ii. Were there opportunities for local product developers to contribute with ideas and reflections? In what way?
  - b. What challenges did you face during the project?
  - c. In 2011, you developed the organisational structure for *Positive Impact* as well as the process for including new products, where you reached the conclusion that local product owners should put forward and present their products.
    - i. How did the discussions go regarding this?
    - ii. What were the motives behind conducting the process in that way?
  - d. In 2012, you launched the *Positive Impact* portfolio and filled it with content.
    - i. In what way was there an exchange between the project group and project owners?
    - ii. What challenges were there?
  - e. How did the launch and the externally communicated target setting affect ownership and initiative taking within the organisation?
4. How did you work, during the process, with involving the rest of the organisation in order to create ownership and initiative taking?



5. Did the relationship between product owners and the steering committee (which later became the *Positive Impact* board) change?

## **Part 2: Local ownership**

6. Can you describe the process when ownership was moved from Senior Management out to the organisation (product developers/product owners) in 2008? What challenges arose?
7. When did you take the decision to base *Positive Impact* on local ownership? What was the reasoning behind this logic?
8. Why is it so important to have local ownership? What are the advantages or disadvantages with local ownership?
9. How do you perceive that local ownership emerges?
10. Do you think that you do or have done something actively (centrally) to support the emergence of local ownership?
11. What do you think that the organisation can do centrally to support the emergence of local ownership and to increase motivation?
12. Due to the fact that the target setting has been communicated externally, there is pressure on the business areas.
  - a. How do you think that affects the motivation among product developers to develop new products for the *Positive Impact* portfolio?

## Appendix 4.

### Interview guide – Local product owners

*Respondent: Product owners*

*Date:*

1. Can you describe what you are working with now and what type of position you have in the organisation?
2. How did you come in contact with the *Positive Impact*, did you present a product to the board?
3. Why did you choose to present your product for the *Positive Impact* board?
4. How did you experience the process up until the board meeting? Can you describe the process?
  - a. What challenges did arise and how did you resolve them?
  - b. What obstacles were there?
5. Do you think that you benefit from having your product in the *Positive Impact* portfolio?
  - a. How does this affect your impression of the *Positive Impact* portfolio?
  - b. Do you think that you are an important part of the strategy and can affect the strategy's success?
6. Why is it of such importance that local product owners take initiative and present their products to the board?
  - a. What advantages/disadvantages do you see regarding local initiative taking?
7. How do you perceive that local initiatives emerge?
8. In what way do others' initiatives inspire you?
9. Is there any exchange between different product owners? What kind of exchange could that be?
10. In what way does the central organisation affect initiative taking on a local level?
11. Which underlying factors do you consider important for bringing about local initiatives? Which do you consider more important than others?

12. Due to the fact that the target setting has been communicated externally, there is pressure on the business units. Has this affected the motivation and thrust among product developers to develop new products for the *Positive Impact* portfolio?
13. What can you and your colleagues do to increase local initiative taking within your division?
14. What do you consider key factors for reaching the *Positive Impact* portfolio goals?
  - a. In what way do you think that you and your colleagues can contribute?