How do ecological, economic and social sustainability influence on employee motivation?

A case study of a German company in the solar energy sector.

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Abstract

This research has generated interesting findings from the inductive approach and the qualitative methods that were used in the inquiry process. Thanks to the literature review, the semi-structure interviews, a focus group and secondary data it was possible to obtain the necessary information to answer the research question: How do ecological, economic and social sustainability influence employee motivation? In order to answer this question, two sub-questions were considered first, namely What constitutes sustainability in the company-specific context of Wagner & Co Solartechnik? and Does sustainability motivate people? The answer to the latter question has to be yes, as the analysis revealed numerous linkages. From the data gathered, it is apparent that economic sustainability constitutes the most basic level of sustainability at Wagner Solar. Although the influence of money has its clear limitations, an increase in material orientation could be observed compared to previous. At the company level, ecological sustainability manifests itself as ‘striving for the energy turnaround’. The majority of employees show, as their most important source of motivation, an interest in solar technology as well as a concern for increased eco-efficiency. The information gathered has permitted an assessment of whether the company hires people that are already committed to the company’s vision and mission, or whether the company makes an effort to socialise employees. While this does not seem to be the case it is apparent that the company cultivates a communication and information policy that perpetuates its values. Wagner Solar also exhibits a strong and consistent corporate culture. In terms of social sustainability, democratic decision-making appears to exert the greater amount of influence on employee motivation, while the influence of employee ownership is comparatively diminished. The company appears to both attract and seek out employees who value the ability to work autonomously, partially explained by the German nationality but not exclusively. Positive work environment and good collaborations between colleagues were deemed another important motivational factor, both by the interviewees and the intra-company survey. However, working at Wagner Solar is not without its perceived negatives. These are mostly related to the company’s unique decision-making structures, the use of the language, and possible “island” mentality that some departments might suffer. The study also aimed to analyse the influence of different motivators on employees. When contemplating which pillars of sustainability motivate the most, the analysis of the main motivators revealed that the most important pillar is the social one, since most of the participants have one or more main motivators connected to it. Overall, the impression is that the social values of Wagner Solar are the most pervasive, affecting attitudes and behaviours such as autonomy and responsibility, and, therefore, constitute the main motivators for its employees. The ecological pillar also noticeably influences employee motivation, while the economic pillar is the least influential.

Key words: sustainability, environmental protection, work motivation, employee ownership, democratic decision-making, solar energy, renewable energies, corporate culture
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1. Introductory Chapter

1.1 Identification of research area

Sustainability is not a new concept – in its current incarnation it might be relatively novel, but its roots are rather ancient, not to mention global in nature. Taoists, Confucians, Hebrews and Native Americans all emphasised the importance of striving for balance and living in respect of and harmony with nature (Bañon Gomis et al., 2011, p. 172-173). However, it seems that these philosophies have not carried over into the contemporary mainstream. In recent years, the concept of sustainability has taken on a never-before-seen sense of urgency as we have witnessed the degradation of the environment at the hands of humans take on unprecedented momentum. In their 1972 publication “The Limits to Growth”, Meadows and Club of Rome (cited in (Bañon Gomis et al., 2011, p. 173) initiated the contemporary sustainability movement by pointing to the dangers inherent to the mass economic consumerism that forms the basis of Western economies. Others have followed suit and the discourse is alive and thriving, whilst the problems associated with sustainability remain and continue to grow more grave and desiring of urgent attention. We argue that it is crucial, now more than ever, to study those organisations that successfully practise sustainability with conviction. We believe that doing so will shed some light on the inner workings of sustainable organisations and, hopefully, generate insight on how such organisations can be established and maintained over time.

While recent developments in the sustainability discourse point to the dangers of consumerism, in free market societies there are still strong concerns about how to maintain productivity. The role of productivity as the engine of capitalist economies is partially responsible for this, which in turn puts pressure on managers to enhance employee motivation levels (Pinder, 2008, p. 22). Motivation, understood as “the contemporary (immediate) influence on direction, vigour, and persistence of action” (Atkinson, 1964, p. 2 cited in Steers et al., 2004, p. 379), has an impact on performance and this can enhance productivity. This renders the study of motivation strategically important for businesses. Further, it is fundamental when managing projects with a designated Human Resources function. A scientific approach is required in order to identify the appropriate elements of work motivation, much like a scientific approach is needed for the study of sustainability.

The present research aims to bridge several gaps in the sustainability discourse using motivational theory. One major gap in the literature is centred on social sustainability. Out of the three so-called pillars of sustainability – economic, ecological, and social sustainability – the latter is the most vague and contested. In terms of implementation the authors disagree as to how much social sustainability is needed, and also how social sustainability can be conceptualised within an organisational context. Littig and Grießler (2005) highlight the role of work in this regard and how it needs to be transformed within society. According to the sustainability map as put forward by Hopwood, Mellor and O’Brien (2005), they fall into the transformist camp. More specifically, they can be classified as ecosocialists because they stress the link between social justice and environmental protection (Hopwood et al., 2005; pg. 46). This perspective is valid because it highlights the interconnectedness of different spheres of sustainability, which necessitates that they be tackled conjointly. However, how it can
be addressed at the microlevel of the individual corporation is not considered by the aforementioned authors. Arguably, this is where Sauser (2008) comes in – he proposes that the employee-owned company (EOC), specifically the cooperative, is a consequential and practical – if somewhat radical (ecosocialist) – embodiment of social sustainability. Essentially, the EOC epitomises a win-win outlook on sustainability that renders redundant the need to consider trade-offs between the pillars (Giddings et al., 2002; pg. 193). The EOC’s democratic nature fits with the stewardship principle of the sustaincentric worldview (Gladwin et al., 1995, p. 899). The sustaincentric paradigm forms a synthesis between technocentrism and ecocentrism, acknowledging that the Earth is a closed system that does not allow for infinite growth. As such, it is both people-centred and conservation-based (Gladwin et al., 1995, p. 894). The concept of the EOC can also be integrated with that of the learning organisation (Jamali, 2006) – the two should be treated as complementary, especially in fast-moving and highly innovative industries such as the solar energy sector. It is further a means of fostering a sustainable organisational culture (Leszczynska, 2011). This is because enhancing employees’ sense of responsibility through ownership and democratic decision-making is a way of ensuring their commitment to organisational values – in this case, sustainability. In that sense, social sustainability as embodied by the EOC is simultaneously the means and an end in itself. Not only does it have the potential to bridge nature and social needs by broadening the scope of meaningful work (Littig and Grießler, 2005), but also economic concerns with environmental ones provided that the latter are part of the company’s strategy. Again, this reinforces the need to address all three pillars of sustainability in unison if one is to make true progress with regard to sustainable development (Littig and Grießler, 2005; p. 75). We propose that a company that integrates environmental, economic and social sustainability in that way is thoroughly sustainable.

Another contribution that the present study aims to make concerns the practical side of sustainability. Essentially, we can distinguish between theoretically and practically oriented publications. The majority of the discussion on sustainability is centred on defining, conceptualising and mapping sustainability on a highly abstract level, especially in the earlier publications, without giving much practical advice with regard to execution. Where practical guidance is given, it tends to originate in the Status quo camp, essentially advising to: firstly, treat sustainability as an add-on to CSR policy because of the potential competitive advantage thus generated; and secondly, use existing structures and systems for implementation. The overall depiction of sustainability thus established is far from holistic. Oftentimes, in these publications, sustainability is still defined entirely in the ecological sense, despite the shift of literature onto social sustainability in recent years. Nidumolu et al. (2009), for instance, follow this pattern, failing to even establish a definition of sustainability prior to sketching a stage/maturity model of sorts. Two articles that specifically aim to integrate both theory and practice are Jamali (2006) and Leszczynska (2011). Interestingly, both highlight the role of organisational culture. Whilst the former posits that in order to survive in the modern world being a learning organisation is indispensable, the latter characterises a pro-sustainability culture according to the following factors: task orientation, an active attitude, a long-term perspective, building up trust by improving relationships and perceiving people as good (Leszczynska, 2011; p. 357). As pointed out by Leszczynska (2011) herself, the underlying assumption here is that there exists a dominant culture within the organisation that is shared by all employees, and also that this is a necessity. How exactly one is to build such a uniform culture is not specifically
addressed. This raises a chicken and egg question of sorts: does the company wishing to embrace sustainability need to align the values of its employees, or should it seek to employ new people who already share the same values? Evidently, this brings employee motivation into the equation. There is certainly no shortage of research on motivation in general, or employee motivation specifically. The contribution of the present study is to link the motivation discourse to the three pillars of sustainability, investigating the relationship of each pillar with individual employee motivation. It further aims to generate insight into the motivational priorities of employees working in a sustainable organisation.

Considering the unique configuration of the company and its longstanding success, the study is further questioning the assumption that it is possible to ‘implement’ sustainability. After all, the company was founded on sustainability principles and still adheres to the exact same vision as it did on the day of its inauguration. There had never been a need for a major change in strategy, need for integrating sustainability with strategy, or the like. Some studies, however, argue that this not only necessary but also feasible. While the authors do not dispute the need for embracing sustainability, they do argue that its implementation is significantly more problematic than suggested by some studies, perhaps even impossible. Part of the reason for this is that sustainability ought to be treated as an ethical code, and as such needs to be thoroughly pervasive – this is something that cannot be simply adopted. As a business ethic, sustainability is not intended to ‘make business sense’; it should not be made to fit into existing structures. On the contrary, it is intended to take precedence over everything else. Sustainability may represent an emergent umbrella, or “hypernorm”, under which several ethical belief systems are allowed to converge. This, in turn, will constitute a boundary to the moral “free space” of organisations (Donaldson & Dunfee, 1994; Taylor, 1989; cited in Gladwin et al., 1995, p. 897). Although it is understandable to ‘advertise’ the concept in terms of competitive advantage in order to ‘sell’ it to businesses, we argue that it is an outdated, if not fundamentally flawed approach. That does not mean that sustainability is contradictory to profitability, quite the opposite. In order to be economically sustainable, a company that operates in a free market economy needs to be profitable. If it is not, it cannot be ecologically or socially sustainable either. While sustainability and profitability are not mutually exclusive, sustainability and the pro-growth agenda are potentially conflicting. Striving for infinite growth may not pose an immediate challenge to economic sustainability; however, in the long run, it is profoundly incompatible with ecological and social sustainability. Perhaps, thus, the sustainability movement needs to be led by those companies that are founded on holistic sustainability principles. In order to achieve global sustainability, then, future companies should be established on those very principles, and build their businesses strategies around them. Consequently, it would be of great interest to academics and practitioners alike to gain insight into the workings of such a company, of which employee motivation is an important component that will become part of the company’s strategy. In the same way that projects need to be aligned with organisational strategy (Haniff & Fernie, 2008, p.6) the entire organisation – its principles, strategy, etc. – must be aligned with sustainability. The insight generated by the present study will ultimately be complex and not necessarily transferable. This is because studying sustainability may lead us beyond the “puzzle-solving exercises” of normal science toward the realm of postnormal science (Gladwin et al., 1995, p. 898).
1.2 Research question

The aim of this piece of research is to contribute to both areas of research, motivation and sustainability, by linking the employee motivation discourse to the three pillars of sustainability, and investigating the interface of each pillar with individual employee motivation. This will be done in the context of a particular case study, a German company in the solar energy sector. The research further aims to determine the motivational influences of employees working in a sustainable organisation.

Therefore, the main question that shall be answered by the present research is as follows:

*How do ecological, economic and social sustainability influence employee motivation?*

In order to answer this overarching question, several sub-questions shall be considered, namely:

- What constitutes economic, ecological and social sustainability in the company-specific context of Wagner & Co Solartechnik?
- Does sustainability motivate employees?
- If so, which pillars of sustainability are most relevant in terms of motivation? Do some influence more than others?
- Are there any significant motivational factors outside the realm of sustainability?

While conducting the present research, the main assumption held by the researchers was that there does in fact exist a relationship between sustainability and motivation. In order to be able to investigate such a relationship, it was essential to first conduct a full study of both areas and later establish the correspondent connections. Both researchers had some basic knowledge of the sustainability topic prior to the present study, which was later revealed to be insufficient and partially even wrong. In terms of motivation, one researcher had a somewhat more profound understanding, owing to her previous academic background (psychology studies). The other could leverage her previous knowledge of Human Resources studies. However, the assumption when approaching both topics was that in order to conduct a full and thorough study, previous assumptions should be disregarded. This was to ensure that all relevant theories would be covered in depth.

This thesis is structured in several chapters. First, a literature review will develop further the two themes already presented in the introduction chapter, sustainability and employee motivation. These topics will be treated separately but linkages, where appropriate, will be made as well. The subsequent Methodology chapter will explain all the important aspects of the research study, from the epistemology and ontology choices on which the research is based, to quality, reliability, validity and replication criteria. The fourth chapter presents the empirical results from the interviews and the focus group, while the analysis of these is undertaken in the fifth chapter. The connection between the theoretical framework and the empirical results is made in this chapter. Finally, the conclusions contain a summary of the main ideas produced by the analysis chapter, the answers to the research question and sub-questions, strengths and weakness of the research, implications for both practitioners and academics and areas for future further research.
2. Literature Review

2.1 Introduction

The research question, *How do ecological, economic and social sustainability influence employee motivation?*, demands the study of both sustainability and employee motivation. These research arenas will first be examined separately, developing the main concepts and terminology that are needed to fully understand the linkages between both areas. Only once this is done can an analysis of commonalities or interaction areas be undertaken. This constitutes the final section of this chapter.

2.2 Sustainability

2.2.1 The problem of definition

In the recent discourse, two documents have put sustainability on the global map: the Brundtland Report (1987), and Agenda 21 (1992). In what is probably the most cited definition on the topic, the Brundtland Report defined sustainable development as development that “meets the needs of the present without compromising the ability of future generations to meet theirs” (World Commission on Environment and Development, 1987, p. 8; cited in Castro, 2004, p. 196). This definition reflects the birth of the concept as a mainstream reaction against the more radical environmental movement of the 1990s. It is therefore hardly surprising that it was kept deliberately vague, most likely in an attempt not to oppose the mainstream pro-growth agenda (Castro, 2004, p. 196). The pro-growth movement embraces the view that “to move towards more sustainable development, we need more growth not less” (Hopwood et al. 2005, p. 42), thereby representing mainstream capitalism. Deliberate conceptual vagueness was initially meant to ensure widespread support for sustainability. This may have been a suitable strategy during the 1990s, when sustainability began to enter public consciousness; however, there is now a dire need to move towards more specificity (Daly, 1996; cited in Fuller, 2010, p. 2). Nowadays, the conceptual ambiguity of sustainability constitutes its most fundamental weakness and a barrier to effective action (Giddings et al., 2002, p. 188). Vague definitions such as given by the Brundtland Report and the World Bank (“development that lasts”, Castro et al., 2004, p. 200) have rendered sustainability a fashionable catchword of sorts that often lacks substance and is, therefore, prone to misinterpretation and misuse (Hopwood et al., 2005, p. 40; Fuller, 2010, p. 1-2). Various popular misconceptions and disagreements have emerged as a result. One of these is the notion that sustainability can be equated with permanence – taken literally, if something is sustainable, this means it can be maintained in the long-term (Jickling, 2001, p. 122). This is still the only way in which some organisations perceive sustainability – working towards sustaining the organisation indefinitely. However, this is perhaps the most narrow way to conceptualise sustainability, and certainly not the one underlying this paper. Beyond this basic definitional debate, there is an on-going disagreement in the literature as to which term is more appropriate, ‘sustainability’ or ‘sustainable development’. Blewitt (2008, p. ix; cited in Bañón Gomis et al., 2011, p. 173) defined sustainable development as “the idea that the future should be a better, healthier place than the present”. In its 1994 strategy document, the UK
government even declared that economic development is absolutely necessary to achieve sustainable development, as it generates the resources required to meet people’s needs (Palmer et al., 1997, p. 88). The pro-growth agenda is clearly reflected here. By contrast, Pearce (1989; cited in Palmer et al., 1997, p. 87) expressed the view that the term sustainable development is a contradiction in itself; that development as currently conceptualised and practised is incompatible with sustainability. Considering that the biosphere is a closed system with limited resources, one could argue that it makes little sense to stress continuous growth and development because it is, quite simply, impossible. According to Castro (2004, p. 216), this is very much in line with the tradition of Marxist thinking: “capital accumulation is the most important feature of the capitalist system, and because it is in contradiction with environmental sustainability, for many people, friend and foe alike, it seems impossible to achieve sustainability and economic growth at the same time.” However, this claim is not uncontested. Oftentimes, ‘sustainability’ and ‘sustainable development’ are actually used interchangeably. To avoid the pro-growth connotations of the term ‘development’, ‘sustainability’ shall be used in the subsequent discussion. The political currents underlying the sustainability discourse will receive further attention in section 3.2.4.

Adding further complexity to the development controversy, Basiago (1995) argued that the meaning of sustainability is inherently context-dependent – within different disciplines, it is bound to have different meanings. Within the realms of biology, sustainability is concerned with the conservation of biodiversity on behalf of future generations, a perspective that has already been discussed above. In the context of economics sustainability is used to argue for the inclusion of environmental resources in accounting, given that traditional accounting methods are unsuitable to serve environmental protection. In sociology, sustainability is centred on the interconnectedness between environmental and social justice, specifically the conflict potential that arises when some groups make decisions on the usage of natural resources that disadvantage other groups. In planning, it is about the integration of urbanisation and environmental conservation with the help of design science. Finally, in environmental ethics sustainability encompasses the maintenance and responsible use of natural resources. It is within this domain that ethics come into play and sustainability transforms into a moral choice. The resulting implications of this perspective will be discussed in a later section. Since Basiago (1995) assumes a holistic definition of sustainability, all the above-mentioned realms are deserving of attention.

2.2.2 The limits to growth – sustainability as the answer?

In the current age, the dominant view of the world is that it is a closed system: quantities of energy and matter on the planet are limited, and everything that is consumed by the system is eventually fed back into it (GSA, 2009; pg. 7). This implies that “we must study the Earth as an integrated physical and biological system” (Levin, 1999, p. 1), maintaining awareness of its limits as a supplier of resources. The advent of industrialisation was accompanied by ever-increasing operational efficiency, up to the point where the positive impact on society turned into negative consequences for the ecosystem. There is widespread consensus that the point has already been reached where the scale of the existing economic system has exceeded nature’s limits. In fact, there is evidence to suggest that by the end of the 1900s human activity was already
exceeding the Earth’s natural capacity by 20% (WWF, 2002; cited in Fuller, 2010, p. 5). This, of course, has consequences for humans and non-human nature alike.

The natural environment, or ecosystem, is a complex adaptive system (CAS) that is closely intertwined with complex adaptive human systems (Levin, 1999, p. 15). CAS have several defining features. Firstly, they display a high degree of diversity which is ensured through continuous recombination. This results in heterogeneous populations. Also, there are interactions of the system’s components at localised levels. These interactions include, but are not limited to, competition and reproduction. Thirdly, the components of the system self-organise into hierarchical structures that are largely based on happenstance (Levin, 1999, p. 12-14). Human society and economy, each of which of course have their own separate subsets, are embodiments of complex adaptive human systems. Using a somewhat oversimplified layer model, the human economy is nested within society, which in turn is nested within the environment (Giddings et al., 2002, p. 192). This has several ramifications: on the one hand, human society is dependent on the environment whilst the environment does not depend on humans for survival (Lovelock, 1988; cited in Giddings et al., 2002, p. 191). Also, the economy as the smallest subset depends on both society and environment, but society can, in theory, go on without the economy (Giddings et al., 2002, p. 192). In this view, the environment, or ecosystem, provides the foundation for all human activity. It is through continuous and delicate balancing efforts that it maintains a degree of stability, or homeostasis (Grinde & Khare, 2008, p. 120). In fact, it is constantly on the edge of chaos, always dangerously close to disruption and turmoil. It is this very fact that emphasises the complex nature of CAS in general and ecosystems in particular.

While ecosystems are more than capable to adapt to environmental strains, the preservation of those services that are of vital importance to humans displays a high degree of frailty (Levin, 1999, p. 15). This circumstance is made worse by ever-increasing demands placed by humans on the environment in the form of overpopulation. The global population has just reached 7 billion and is expected to surpass 9 billion by 2050 (United Nations, 2009). Even though population growth is predicted to recede by the end of the 21st century (Grinde & Khare, 2008, p. 121), it is already putting enormous strains on the biosphere, an effect that is exacerbated by the rapid industrialisation of some developing countries such as China and India. While the extent of pollution is expected to surge, then drop as gross domestic product (GDP) increases (Daly, 2005; cited in Grinde & Khare, 2008, p. 121), it is unclear how much more pressure the biosphere can be put under before its impending collapse. In order to ensure suitable living conditions on Earth for generations to come, humanity must quit its disruption of ecosystems and counteract the adverse effects that its activities are having on the environment. Natural resources need maintaining, protecting, and restoring (GSA, 2009; p. 7). Considering that the Earth’s biosphere is a closed system, failure to do so will ultimately result in the wastes from one process being fed into another. This idea – “waste equals food” – inspired the “Cradle to Cradle” concept formulated by McDonough and Braungart (2002; cited in Grinde & Khare, 2008).

### 2.2.3 Elkington’s pressure waves

The understanding that “waste equals food” was preceded by decades of so-called pressure waves, the first of which was the ‘Limits’ wave of the 1960s to the late 1980s
This era was characterised by a marked public interest in the socio-environmental domain, i.e. the effects of natural resource degradation on the livelihood of past and future generations. The second pressure wave was the ‘Green’ wave (1988-1991) – which saw increasing awareness of the need for more sustainable development processes, new technologies and products. Even more importantly, the ‘Green’ wave saw eroding resistance from industry, which instead began to be replaced by a more competitive and proactive attitude to sustainability. Businesses were starting to see how sustainability could not only serve to reinstate global environmental balance but also create individual competitive advantages, and began to embrace it accordingly. In other words, industry began to acknowledge the eco-efficiency domain, which encompasses an emphasis on the future in terms of generating greater value using fewer natural resources (Gray, 1994; Stone, 1994; cited in Palmer et al., 1997; Tanzil and Bedloff, 2006, p. 42). Another notable point, here, is the integration of ecological and social sustainability with the economic aspect. For one thing, the emphasis is on moving away from a singular focus on economic sustainability towards acknowledging natural resources as part of the company’s value network. Additionally, social sustainability is addressed by means of shifting the focus onto human resources. This three-dimensional understanding of sustainability marked the onset of the third pressure wave, or the ‘Globalization’ wave, which lasted from 1999 to 2002 (Elkington, 2001, p. 7). This wave saw a shift in focus on the socio-economic domain, which incorporates the relationship between the economy and public welfare. It brought the realisation that sustainability cannot be seamlessly integrated into the existing system but instead requires quite fundamental and radical changes in corporate governance and the entire globalisation process.

2.2.4 Pillars of sustainability and the Triple Bottom Line

It is apparent that while each pressure wave has contributed new insights to the sustainability discourse, this has not served to eradicate previous conceptualisations. In fact, most of the previous peaks have persisted to some extent due to vested interests of business and politics (the implications of which shall be discussed in later sections). As a result, there is no consensus on what sustainability actually entails – neither in theoretical nor practical terms. In order to adequately establish the foundation for practical action it is crucial to be as clear as possible conceptually. Any attempt to bring clarity to the concept will need to include an analysis of the different dimensions of sustainability and how they are interrelated. Such an analysis will be the purpose of this section.

One of the common denominators in the sustainability discourse is that sustainability comprises three main dimensions: environmental sustainability, economic sustainability, and social sustainability. All three are concerned with preserving the planet for future generations, and collectively form the foundations of the sustainability. Due to their wide-reaching impact these dimensions have become known as the three pillars of sustainability in the literature (Pope et al., 2004). This conceptualisation evolved from more rudimentary “one pillar” models (Littig & Grießler, 2005, p. 66), which prioritised the environmental dimension whilst treating economic and social issues as peripheral concerns. The emergence of “one pillar” models coincided with the “Green” wave (Elkington, 2004, p. 7), which saw the emergence of increasing environmental concerns in society as well as development of sustainable processes. “Three pillar” or “multipillar”
models, reflecting a more holistic stance, aim to give equal treatment to all pillars (Littig & Grießler, 2005, p. 66). The rationale behind this is that if a society is truly committed to sustainability, economic and social needs are just as deserving of attention as environmental ones. Others have envisioned the dimensions of sustainability as three interlocking components of a triangle, but with the same implications (Crane & Matten, 2010, p. 33). The environmental pillar, herein, constitutes the origin of sustainability whose associated issues – the impact of industrialisation on the biosphere, on-going growth in a world of finite resources etc. – have already been discussed. The economic pillar is based on the ideas of economists such as Kenneth Arrow, Herman Daly, and David Pearce (Crane & Matten, 2010, p. 35) who highlighted the costs incurred for future generations by exceeding the planet’s carrying capacity in the present. On a more narrow level, the economic pillar also concerns the financial maintenance of individual organisations, the implications of which will be discussed in a later section. The social pillar is the latest addition to the three-pillar model and marked a significant shift in the conceptualisation of the sustainability concept. In essence, it is concerned with social justice, in light of 80% of the world’s GDP belonging to the 1 billion people living in the developed world (Crane & Matten, 2010, p. 36). This inequality gap is not limited to developed vs. developing world, and it continues to widen – between rich and poor, urban and rural, north and south, men and women. Many of these issues should be and are being targeted by governments. However, this does not mean that businesses have no role to play in tackling social inequality. Despite attempting to be more inclusive, the three-pillar model has been subject to harsh critique. The various points of criticism include, but are not limited to (Littig & Grießler, 2005): its value being predominantly metaphorical; unequal treatment of the three pillars in reality; failure to define ‘equal treatment’ in the first place; failure to be sufficiently inclusive of cultural-aesthetic, religious-spiritual, and political-institutional dimensions; and, perhaps most importantly vis-à-vis the present study, its failure to sufficiently conceptualise social sustainability (Littig & Grießler, 2005).

The normative cousin of the three-pillar model is the ‘Triple Bottom Line’ (TBL), which figures all three pillars into the – literal – equation. The term rose to prominence in the wake of John Elkington’s Cannibals With Forks: The Triple Bottom Line of 21st Century Business (1997). Its main implication is that businesses ought to have more than just economic goals; the value they add to themselves as well as society should be environmental and social too. Due to it being based on the pillars of sustainability, naturally, the same points of criticism apply. It was so readily adapted by organisations worldwide that concerns have surfaced regarding its substantiality beyond that of jargon. It has therefore been criticised for constituting a mere rhetoric for corporations to hide behind (Norman and MacDonald, 2004). Akin to sustainability, this is chiefly because of definitional vagueness. How to put the TBL into practice is rather ambiguous, in part due to the difficulty of making quantitative assessments of the social bottom line; as such, the term ‘Triple Bottom Line’ can be faulted for being inherently misleading (Norman and MacDonald, 2004, p. 254).

Giddings et al. (2002) criticise the separatist notion of sustainability as embodied by the three pillars and others (e.g. Leszczynska, 2011). They reject it for failing to establish a holistic theory, oversimplifying the multi-layered and multi-faceted nature of reality, giving preference to the actual dominant social and economic relationships, and, perhaps most crucially, separating each sector from another when it is in fact impossible to divide human activity from the environment (Giddings et al., 2002, p. 188). Instead,
Giddings et al. (2002, p. 192) envision the three spheres of society, economy and environment as follows: the economy is nested within society, which in turn is nested within the environment. In this way, the significance of the environment is highlighted: it forms the basis for all human activity, as the economy is a product of its interaction with society, and society in turn interacts with the environment. To recognise the interfaces between all these sectors and eliminate the separations between them is fundamental in order to overcome the barriers to achieving sustainability.

If we reject the pillar models in favour of the multi-layered model proposed by Giddings et al. (2002), social sustainability takes on a newly crucial role. Littig & Grießler (2005, p. 72) define social sustainability as follows: “... a quality of societies. It signifies the nature-society relationships, mediated by work, as well as relationships within the society. Social sustainability is given, if work within a society and the related institutional arrangements: satisfy an extended set of human needs; are shaped in a way that nature and its reproductive capabilities are preserved over a long period of time and the normative claims of social justice, human dignity and participation are fulfilled.” (Littig & Grießler, 2005, p. 72). It is noteworthy that the authors envision work as the transformatory bridge between nature and social needs, thereby interweaving social and ecological sustainability. As a consequence, the nature of work must be reorganised in such a way that the process is socially sustainable and the outcomes ecologically sustainable. ‘Mixed work’ (Littig & Grießler, 2005, p. 74) should replace the already eroding work structures that are currently in place. This conceptualisation includes unpaid work, care work and community work, arguing that this kind of work is equally gainful and rewarding according to sustainability principles. An alternative conceptualisation of how work can bridge environment and society – the employee-owned company – is examined in section 3.2.9. Littig & Grießler (2005) also argue for the necessity of gender equality in a sustainable working society. However, they are uniquely aware that the sustainability discourse is a political one, and that the reconceptualisation of work is not currently an aim of mainstream politics (Littig & Grießler, 2005; p. 75). In fact, they identify the neo-liberal agenda as the main barrier to societal transformation (Littig & Grießler, p. 76). Overall, the argument is that progress in terms of sustainability is characterised by improvement in all three aspects – the ecological, economic, and social – otherwise it is not real improvement. The purpose of the following section is to discuss the interface between sustainability and various political agendas.

2.2.5 Enter politics

Some authors have attributed the definitional debate surrounding sustainability to incompatible value systems. The link to politics here is evident, as different political stances will tend to emphasise different values and, hence, have different views on sustainability. This explains why the sustainability discourse has been infused with political agendas since its initiation. Due to its inherent ambiguity the Brundtland Report has, in fact, been called a “political fudge” (Middleton et al., 1993, p. 16; cited in Giddings et al., 2002, p. 188). Similarly, Agenda 21 – the document that resulted out of the 1992 Earth summit and was responsible for turning sustainability into a well-known term – has been criticised for centring rather patronisingly on developing countries. It has further been faulted for being conservative and failing to question existing capitalistic systems: knowledge transfer from the core to the periphery, technocentrism,
and power imbalance between indigenous communities and industry (Castro, 2004, p. 199-200). The World Bank, too, has been faulted for being excessively conservative. It avoids acknowledging that there is a political component to sustainability and offers “sanitized technical solutions to political problems” instead (Castro, 2004, p. 202). While other authors acknowledge that sustainable development is a rather “fuzzy” concept, they do not blame political agendas for this but speculate instead that a certain vagueness can be attributed to the novelty of the concept: “[…] definitional diversity is to be expected during the emergent phase of any potentially big idea of general usefulness; sustainability is akin to democracy, liberty, equality, or security in that regard” (Gladwin, et al., 1995, p. 876-7). In a similar vein, Palmer et al. (1997) compare sustainability to happiness, stating that even though everyone seeks to find it, individual definitions as to what it actually entails may be quite different, and even change over time (Palmer et al., 1997, p. 88). Unlike Gladwin et al. (1995), however, these authors do assign a political component to the sustainability debate, agreeing with Mitchell (1994; cited in Palmer et al., 1997, p. 91) that political systems ultimately have the power to shape sustainability. The political currents underlying the sustainability discourse have been picked up on by several authors (Hopwood et al., 2005; Littig & Grießler, 2005). Hopwood et al. (2005) have summarised them in a maturity model of sorts that maps sustainability on two axes – socio-economic wellbeing & equality concerns, and environmental concerns. According to this framework, Agenda 21 is a product of the Status quo camp, or the pro-growth movement. Proponents of this view argue that business is fit to be the main sustainability driver, and existing systems can be used to achieve it. Further, the role of technology development is stressed while the part played by government is downplayed (Hopwood et al., 2005, p. 42). Referring specifically to the Brundtland Report, Hopwood et al. (2005, p. 43) state that some of its details adhere to the status quo agenda while it is, overall, reformist in tone. The Reformist camp identify systemic imbalances as the root of the problem, not the nature of society. Similarly to advocates of the status quo they stress the importance of technology, but also see governments as an important driver in terms of pressurising business to embrace sustainability. Leading business thinker Peter Drucker belongs to the Reformist camp because the highlights the need for “effective government […] in this highly competitive and fast changing world of ours” (Homer-Dixon, 2000, p. 293; cited in Grinde and Khare, 2008, p. 136). However, Palmer et al. (1997, p. 89) see a problem with attributing too much responsibility to existing political systems because the horizons of political leaders commonly only reach as far as the next general election. Adopting an even more radical stance, the Transformist camp see the root of the problem in the way that humans relate to the environment, and anticipate future collapse of the system if things stay as they are (Hopwood et al., 2005, p. 45). In order to achieve sustainable development they argue for a profound reform of social and political systems, stressing that they need to become more inclusive of underprivileged groups. Of the various transformist subgroups, only three are in fact concerned with sustainability: ecosocialists, ecoanarchists, and ecofeminists. While the latter see a link between environmental degradation and discrimination of women, the former argue for transformation of the social structure of society. Only through doing so can both environmental problems and social injustice be overcome (Hopwood et al., 2005, p. 46). Hawken (1993; cited in Grinde & Khare, 2008, p. 127-128) also belongs to the Transformist camp, arguing that business in its current incarnation is effectively destroying the world. According to him, the vested interests between business and politics are to blame for the sustainability standstill. Environmental preservation cannot
be effectively addressed before corruption is eliminated. Other authors share in the same view, pronouncing the failure of the Rio Earth Summit and Agenda 21 (Foster, 2003; Castro, 2004). In order to get back on track, Hawken argues that we must accept that the age of industrialism is over and turn our attention towards the economy that follows: “either [industrialism] falls in on us and crushes civilisation, or we reconstruct it and unleash the imagination of a more sustainable future into our daily acts of commerce” (Hawken, 1993, p. 212; cited in Grinde & Khare, 2008, p. 128).

2.2.6 The call for ethics

Perhaps the most popular mainstream perspective on sustainability, currently, focuses on minimising the human impact on the environment – e.g. as embodied by the “carbon footprint” – chiefly through the use of new practices and technologies (Bañon Gomis et al., 2011, p. 174). In this view, environmental conservation through research and technology is the very embodiment of sustainability. Whereas the level of commitment still varies widely, the rhetoric at least has been overwhelmingly embraced by business and its associated publications. The main argument for sustainability, in this view, is that it makes “good business sense” because it enhances efficiency by reducing waste, thereby saving financial resources and protecting the environment at the same time (Fisher, 2010, p. 29). Whilst social and ethical factors are routinely mentioned they tend to linger on the periphery, or are treated as an added bonus. Financial and operational concerns remain on the forefront. Only where resource constraints pose a threat to economy or society does sustainability enter the picture (Palmer et al., 1997, p. 88). In the mainstream business literature, overall, striving to be sustainable is all about generating competitive advantage (Jamali, 2006; Nidumolu et al., 2009). In this context, sustainability is treated as “an essentially amoral engineering or economic concept” (Bañon Gomis et al., 2011, p. 175). While there is widespread agreement that sustainability is “good”, there is little or no underlying rationality or justification; at least, it is not explicitly stated. However, this is not the sole point of criticism. Some have argued that the very stance upon which the ‘Green’ wave is based – the maximisation of financial gains whilst making sure that the exploitation of the environment does not lead to adverse impacts on human society – is inherently questionable on moral grounds. Not only is this viewpoint strictly human-centred but, more importantly, it makes the assumption that “quality of life is inextricably tied to wealth creation and consumption” (Palmer et al., 1997, p. 88).

The different approaches to sustainability can be viewed as falling on a continuum, ranging from singular to holistic, from weak to strong, from Status quo to Transformist. In a way, this reflects the development of the concept over the past decades; over time, the conceptualisation of sustainability has continuously evolved and broadened. Yet, the ‘old’ perspectives have survived and stubbornly persisted as some groups have demonstrated a lack of aptitude or willingness to embrace all aspects of sustainability (Palmer et al., 1997, p. 91-92). In part, this can be attributed to the differing political agendas underlying the sustainability discourse. Sustainability is not simply a haughty philosophical idea; if taken seriously, it becomes normative concept just as well. Since the implications of this are far-reaching and involve business and politics alike – may even pose a threat to the status quo – political agendas are bound to exert strong influence. Although it certainly plays a part, this debate goes beyond the age-old conflict between socialism and mainstream capitalism, even beyond adapting to
changing resource availabilities on the planet. Naturally, an economy driven primarily by growth in a world of finite resources is bound to run into serious difficulties eventually. Economic growth in its current incarnation has taken on a rather self-destructive momentum of its own. The “invisible hand” that was guiding the economy in the 19th century has been replaced by an “invisible elbow” (Grinde and Khare, 2008, p. 128). The public sustainability discourse has been characterised by a series of waves and downwaves (i.e. temporary loss of public interest), or trends and backlashes. Elkington (2001) had anticipated that there would be additional pressure waves following those described by him that would likewise be accompanied by downwaves, but that the latter will become shorter and the former more transformative as time progresses. Most recently, the discourse has taken on a direction (in the literature at least) that can be considered a backlash of sorts against the pro-growth agenda. Perhaps this is a sign that the latter has truly run its course and needs to be succeeded by a new approach. As of now, the sustainability concept can still be most closely described as a “global dialog in session” or a “messy social experiment” (Grinde and Khare, 2008, p. 129). If we adopt a holistic view of sustainability and the Transformist stance that sustainability necessitates societal change, it becomes clear that sustainability is, in fact, a moral concept, or “an ethical code for human survival” (Sharma and Ruud, 2003, p. 205). As such, it comprises a number of principles that ought to be followed.

### 2.2.7 Principles of sustainability

There are four principles of sustainability/sustainable development as identified in the literature (Fuller, 2010, p. 3-6). The first is the Futurity Principle, which is derived from the Brundtland notion that the present should not compromise the needs of the future. These needs, naturally, exist on several levels. At the most basic we find food, water, shelter, and suitable clothing. On the subsequent level there is sufficient energy for lighting/heating/cooling, education, health care, and employment. However, even at the second level we may contest what constitutes a real need. Further beyond, the definition of needs becomes more vague. Things are even further complicated if we accept the notion that needs are extend beyond basic requirements to everything that secures “a reasonably comfortable way of life” (Williamson et al., 2003, p. 5; cited in Fuller, 2010, p. 4). After all, yesterday’s wants have a way of turning into today’s needs (Fuller, 2010, p. 4).

The second principle is the Environment Principle. This is all about striving to live in harmony with the environment rather than exploiting it, and essentially encompasses what has previously been discussed regarding the biosphere. The third principle is the Equity Principle. It concerns human living conditions on Earth, in particular with regard to income and wealth. The World Bank (2009; cited in Fuller, 2010, p. 6) has stated that in 2005, an estimated 1.4 billion people were living below the poverty line, existing on as little as USD1.25 a day. Many developing countries struggle to improve living conditions for their people as a result of unjust terms of trade and strict loan conditions. Matters are made worse by political corruption. As a result, the gap between rich and poor is large and continues to grow. In order to arrive at global sustainability, however, social equity is fundamental.

The Participation Principle is the fourth and final principle. The need for participation was actually explicitly outlined in the Agenda 21 document, with an emphasis on
involving all concerned citizens in decision-making processes (Fuller, 2010, p. 6). Based on the previous discussion it is quite apparent that to achieve sustainability on a global scale fundamental societal changes will have to be implemented. Without the support of the majority of the population this will not be possible. This shows how just how important participation really is.

The futurity principle is widely acknowledged by the Status quo camp (Hopwood et al., 2005); we can call it the lowest common denominator of sustainability. The problem with the notion of sustainability as currently adopted by business at large is that it emphasises the futurity principle, with the environment taking a backseat, and equity and participation not coming into play at all (Palmer et al., 1997, p. 89). This marginalised attitude is unlikely to lead to the achievement of sustainability. However, some adherents of the Transformist camp have also adopted a stance that is lacking in that regard, if in a different way. These groups are, specifically, deep ecologists and eco-fascists. Their attitude is characterised by a deep concern for the environment, accompanied by a relatively low concern for humanity or, in the case of eco-fascists, even an anti-human outlook (Hopwood et al., 2005, p. 45). Certainly, they are not addressing equity or participation in any way, thereby neglecting the social aspect of sustainability entirely. However, for sustainability to be realised all four principles of sustainability need to be addressed.

### 2.2.8 Strong and weak sustainability

The above discussion on the principles of sustainability leads to the distinction between strong and weak sustainability. Daly and Cobb (1989; cited in Palmer et al., 1997, p. 90) were the first to make this distinction. They differentiated between strong and weak sustainability based on the social parameter. The key to strong sustainability, in their view, is not only to avoid over-exploitation of the Earth by human society, but, crucially, also the equal distribution of quality of life amongst all people on the planet. Weak sustainability, on the other hand, is centred solely on the environmental aspect. In this weak ethic, the planet is still viewed chiefly as a resource provider while the equity aspect does not come into play at all. Weak sustainability, then, incorporates the futurity principle and, in part, the environment principle whilst the equity and participation principles are solely embraced by strong sustainability. Considering that equity is the main dividing factor here, we can liken the strong sustainability ethic to Marxism/socialism whereas weak sustainability associates most closely with mainstream capitalism. Again, this illustrates the central role played by politics in the sustainability discourse.

In a similar vein, technology is seen as another dividing factor between weak and strong sustainability. According to Faucheux and O’Conner (1995; cited in Palmer et al., 1997, p. 90), advocates of the weak sustainability ethic have significantly more faith in the role of technology as a propellant of sustainability. They envision future society as essentially similar to today’s, except more technologically advanced. Changed social structures are not part of this vision. Instead, ever-advancing technologies will provide all the necessary means for achieving sustainability – mainly, new resources, cleaner methods of production, and novel sources of energy (Palmer et al., 1997, p. 90). This strong faith in and heavy reliance on technology mirrors the Status quo approach outlined by Hopwood et al. (2005). However, if we adopt a holistic view, technological
advancements alone do not wield sufficient power to bring about sustainability. Whilst technology surely has an important part to play, some argue that its role should be supporting rather than primary. The existing system, or, in other words, the overall societal framework is what needs changing first. Subsequently, technology can be fit into the new structures to work its effects and increase overall efficiency (Faucheux and O’Conner, 1995; cited in Palmer et al., 1997, p. 91). In other words, eco-efficiency can only be a supplement of eco-justice (Gray, 1994; Stone, 1994; cited in Palmer et al., 1997).

2.2.9 The sustainable organisation

The previous discussion has focused primarily on sustainability in a broader societal context. While this global view is important to keep in mind, from a practical perspective it is just as critical to consider the implications at the microlevel. In order to achieve global sustainability, one has to commence at the more narrow level of the individual organisation. Sustainability at the microlevel means meeting the needs of current stakeholders without compromising the needs of future stakeholders. This has many implications. For one thing, the sustainable organisation needs to be economically viable at present whilst protecting and nurturing those human and natural resources that are required to sustain the organisation’s future (Leszczynska, 2011, p. 345-6). The outlook thus expressed is a long-term view of an organisation’s lifecycle, not necessarily opposing but certainly complementing short-term profit orientation.

The desirable and actual properties of sustainable organisations have seen an increase in research interest in recent years. However, much of it has been focused on transforming an unsustainable organisation into a sustainable one. This explains why, for instance, Jamali (2006, p. 816) depicts sustainability as a change process, which necessitates an openness to change on the part of organisations. This in turn highlights the need for organisational learning, or Sustainability-focused organisational learning (SFOL): “SFOL appears to be a promising catalyst of change in the pursuit of sustainability” (Jamali, 2006, p. 819). The concept of sustainability as defined by the author is based on Elkington’s triple bottom line, acknowledging the importance of economic, social, and environmental spheres as well as highlighting their interconnectedness. Jamali (2006) goes on to propose a model that aims to achieve triple bottom line (TBL) integration with the help of a sustainability performance measurement (SPM) framework. The steps within the circular framework are as follows: establishment of a sustainability vision, definition of sustainability strategies, implementation, monitoring, and review/adaptation. The need for strategic integration of sustainability as well as the role of leadership in doing so are both highlighted in this regard: “The role of leadership in this respect is critically important in sketching an appealing and realistic sustainability roadmap and fostering a learning climate” (Jamali, 2006, p. 817). In terms of implementing sustainability through organisational learning the following means are suggested: systems-level thinking and learning, team building, continuous training and development, cultivation of a learning culture, information sharing and collaboration, and formative accounting and control. Based on his suggested implementation process, it appears that Jamali (2006) is a proponent of the Status quo agenda with perhaps slightly Reformist tendencies (Hopwood et al., 2005); certainly, he does not advocate a reconceptualisation of work (Littig & Grießler, 2005), much less fundamental organisational or societal changes. Rather, the potential of sustainability to generate
competitive advantage is emphasised, thereby “selling” the concept – a strategy also adopted by Nidumolu et al. (2009). In addition, the author points out that there may have to be trade-offs between the pillars with regard to practical implementation. The argument is that this is a source of confusion and potential deterrent even for those companies willing to embrace sustainability. However, the company upon which the present research is based embodies social sustainability in a way that shifts the organisational rationale away from trade-offs and towards a win-win outlook on sustainability: employee ownership.

**2.2.10 Employee ownership and motivation**

A substantial body of research is devoted to employee motivation – what, precisely, drives people to work, to what extent, and how that can be manipulated to fulfil a variety of objectives (the majority of which are centred on productivity and profitability). By comparison, there is relatively little research on what motivates owners. To some extent, owners’ motivation is taken for granted; it is routinely assumed that the mere fact of ownership translates directly into commitment and, hence, motivation (Duncan, 2001, p. 1). The concept of employee ownership is not new. Aiming to establish a definition of ownership, Ben-Ner & Jones (1995, p. 532), state that “ownership of an asset consists of the right to control its use and to enjoy its returns”. In an employment context, “control” and “returns” possess various different meanings. Control pertains to the establishment of organisational goals, official job positions and actual job roles, by whom they are occupied, and how those individuals are made to fulfil their roles. Returns are remunerations stemming from the operations of the organisation. These may be financial or physical in nature; their most common incarnations include profits, wages, working conditions, and output quality as well as price (Ben-Ner & Jones, 1995, p. 532-533).

Employee ownership was a popular research area in the 1980s and has seen a renewed surge in interest from both theory and practice in the past few years, owed in part to the recent economic crisis. Sauser (2008, p. 151) has stated that the employee-owned company (EOC) represents the “ideal blend of capitalism and communitarianism that vitalizes the global economy”. Far from being a mere ideological construct, the reasoning behind the EOC is decidedly practical. It is a very real worry that absentee investors may make less-than-informed decisions, simply because they do not know the company as would someone who works in it. If ownership is dominated by absenteeism, decision-making may have adverse effects on business proceedings. Such misinformed decisions may be caused by either or ignorance. Either way, they may pose substantial danger to a company. Even in the absence of such danger, it has been observed that employees are less productive when absentee investors profit from their efforts (Duncan, 2001, p. 3). The obvious way to avoid this is to give the majority of voting rights to those who know the business best and have the greatest influence on firm performance – its employees (Duncan, 2001, p. 2).

There are many different types and subtypes of the employee-owned company (EOC). It is important to distinguish between them, as the manner in which ownership rights are distributed impacts the behaviour of those who hold them (Ben-Ner & Jones, 1995, p. 533). This, in turn, may have significant consequences for the organisation. The possibilities are infinite. A business may be, for instance, 100% owned by 25% of
employees, or 25% owned by all employees, or 100% owned by all employees with a single person holding the majority of stock. Consequently, employee ownership constitutes a continuum, ranging from capitalistic firms that have implemented some form of EO scheme to full worker cooperatives (Kruse & Blasi, 1997, pp. 114-115; cited in Caramelli & Briole, 2007, p. 290). In practice, employees can hold anything from a nominal stake to full collective ownership. As a result, employee ownership generates varying configurations of owner/manager/worker roles, rights, and responsibilities (Rousseau & Shperling, 2003, p. 554). Similarly, a typology of EOCs has been supplied by Ben-Ner & Jones (1995) alongside two dimensions, control and return rights. There are four degrees of control rights, ranging from none at all to participation in control, sharing of control and, finally, dominant control. On the other axis, the degrees of return rights range from none to small, moderate and majority. A firm where both control and return rights are non-existent can be classed as the classic conventional firm. At the other end of the continuum – with dominant control rights and majority return rights – there is the producer cooperative (Ben-Ner & Jones, 1995, p. 534).

The cooperative can be defined as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” (ICA, 2010). The characteristic features of cooperatives are as follows (Jones & Kalmi, 2008, p. 4): firstly, ownership goes beyond investment in shares; in addition, the owners have another transaction relationship with the business, acting as employees, suppliers, or customers. Cooperatives have this aspect in common with most other EOC. Secondly, voting rights are unconnected to capital and split equally between members instead. Hence, equity is one of the fundamental values of any cooperative. Others include self-help, self-responsibility, democracy, equality, solidarity, honesty, openness, and social responsibility (CICOPA, 2011).

These values are put into practice using a number of guidelines, or principles (CICOPA, 2011). The first one is voluntary and open membership, meaning that cooperatives are open to everyone who wishes to join them regardless of gender, social, racial, political or religious background, given that they are willing to adhere to the values and principles. The second one is democratic member control. This implies that cooperatives are governed by their members who actively participate in policy setting and decision-making. Designated representatives are liable to the membership. Primary cooperatives are characterised by equal voting rights of all members. While this may not apply to cooperatives at other levels, they too are organised in a democratic fashion. The third principle is member economic participation. Members of a cooperative contribute evenly, and democratically control, all capital, at least part of which is common property. Surpluses are usually allocated for: development of the cooperative, delivering benefits to members, and supporting other activities that have been democratically approved. The 4th principle states that cooperatives are autonomous and independent organisations that do not compromise their democratic values in exchange for agreements with or capital from external sources, such as governments. The 5th principle – education, training and information – states that cooperatives ought to provide education and training for all their members as well as information about their work to the general public, in order to develop competencies and raise awareness. The 6th principle, cooperation among cooperatives, stresses just that. Cooperatives strive to work together through common structures at several levels, thereby aiming to
strengthen the cooperative movement. In line with the 7th and final principle, concern for community, cooperatives contribute to the sustainable development of their communities through democratically approved policies.

Cooperatives function effectively in various different contexts. Depending on the industry they operate in, there are different subtypes of cooperative. One well-known type of primary cooperative across the globe is the agricultural cooperative, engaging mainly in food production. Cooperatives can also be found in banking and finance – most commonly in the form of credit unions and cooperative banks – in insurance, and in retailing (either retailer- or consumer-owned) (Jones & Kalmi, 2008, p. 2). Perhaps the most exemplary form cooperative is the producer or worker cooperative, a type that is most popular in Europe, particularly Italy and France. The Mondragon cooperatives in the Basque region of Spain are a prime example (Sauser, 2009, p. 152). Worker cooperatives are essentially no different from other companies in the sense that they operate in the same free market system. As a result, they are subject to the same principles of competition and profitability (CICOPA, 2011). According to Jones & Kalmi (2008, p. 5) worker and owner status in a worker cooperative are congruent, and membership is restricted to those who work in the cooperative. Workers control the majority (at least 51%) of shares (CICOPA, 2011). In some cooperatives, control rights are concentrated among a small number of worker-members (Jones & Kalmi, 2008, p. 7). In any case, internal governance is based on the “one man, one vote” principle, irrespective of capital share held by the respective employee (CICOPA, 2011). This democratic governance also means that workers make collective decisions on strategic issues and appoint their own leaders.

According to the International Co-operative Alliance (ICA), global membership of cooperatives is currently more than 800 million people (ICA, 2010). This highlights their significance in the global economy. Besides that, they derive their significance from their democratic governance structures and ability to tackle market failures by offering an alternative to ‘traditional’ capitalism (Jones & Kalmi, 2008, p. 2-3). With their emphasis on information and transparency, they stimulate the individual and collective sense of autonomy and accountability that is required to thrive in an unstable economic environment. Their stated aim is to sustain the company for future generations (CICOPA, 2011).

The impact of ownership on performance has received much attention from research, primarily because high performance is seen as an expression of high motivation, amongst other factors. There is a body of research that implies a positive impact of employee ownership on corporate performance as expressed in financial and econometric terms (Arcimoles (d’) & Trébuq, 2003; Bradley, Estrin, & Taylor, 1990; Jones & Pliskin, 1988; Kruse & Blasi, 1997; cited in Caramelli & Briole, 2007, p. 291). Performance is closely intertwined with productivity, which in turn is affected by the impact of control and return rights on employee motivation (Ben-Ner & Jones, 1995, p. 537). However, in order for this impact to be positive the combination of control and return rights needs to be just right. A study of Employee Share Ownership (ESOP) companies in the US in 1998 revealed that 75% benefited from an increase in sales, profits, and stock price when employee ownership was implemented. Customer satisfaction was also enhanced, with 50% of the sample experiencing significant improvements (Duncan, 2001, p. 3). This clearly shows that the ESOP, where return rights are either moderate or high and control rights may range from none to control
sharing, is conducive to productivity. However, the impact of ownership on employee attitudes and behaviour is much less noticeable if worker ownership is not accompanied by worker participation in decision-making (McCarthy et al., 2010, p. 391). Crucially, participation needs to be substantive – e.g. in the form of self-managing teams – rather than consultative if it is to be effective (Levine & Tyson, 1990; cited in Park, 2011, p. 1). This will be discussed in more detail in the following. Management motivation for implementing employee ownership also matters. The positive effect of worker ownership is strongest when it is management’s genuine aim to promote organisational democracy (McCarthy et al., 2010, p. 391).

Klein (1987, pp. 320–321; cited in Caramelli & Briole, 2007, p. 291) differentiated between three different “models of satisfaction” that serve to explain the positive impact of ownership. The Intrinsic Satisfaction Model suggests that ownership itself is sufficient to explain the positive impact on performance. According to the Extrinsic Satisfaction Model, employee ownership, in conjunction with financial rewards, may exert positive attitudinal effects. Thirdly, the Instrumental Satisfaction Model suggests that ownership may impact positively on employee attitudes provided that it improves employees’ access to information and participation in decision-making. These cognitive effects of employee ownership will be discussed in section 3.2.10.

There are three main motivational theories that account for the attitudinal impact of ownership on performance (Duncan, 2001, p. 4-5). The first one is agency theory, which implies that in the conservative corporation owners and agents are separate. Owners are owners and employees are not owners but agents, and agents and owners commonly seek different goals. When employees are also owners, the agency problem is reduced and they begin to adopt different attitudes and behaviours. 100% employee ownership is the organisational form with the lowest possible agency cost. The resulting impact on performance will, thus, be positive. The second theory is equity theory, which was initially conceived to explain how employees behave in situations in which they are treated less favourably than other employees. When faced with perceived inequity, employees attempt to overcome the resulting tension by either reducing their effort or changing jobs. Employee ownership, especially if it is as much as 100%, is a means of reducing perceived inequity. The third and final motivational theory is reinforcement theory. Essentially, it concerns the link between performance and reward, suggesting that regular financial rewards, when unrelated to performance, are unlikely to inspire optimum performance. By contrast, employees that receive performance-related pay, or rewards at unpredictable intervals, have a higher incentive for excellent performance. This would suggest that incentive stock options are the best type of financial reward sharing because they are contingent on high levels of performance.

2.3 Motivation

2.3.1 Introduction

The word motivation originated from the Latin word movere, meaning “to move” (Steers & Black, 1994, p. 132; Steers et al., 2004, p. 379). The implications of motivation have been a matter of discussion for centuries, starting with the Greek Hedonism, but it was not until the past two centuries that the most interesting theories were developed, thanks to the contributions of the emerging psychology field. Today
there are nearly as many definitions of motivation as there are researchers in the field. Motivation is “that which energizes, directs and sustains human behaviour” (Steers & Black, 1994, p. 132), or “the contemporary (immediate) influence on direction, vigour, and persistence of action” (Atkinson, 1964, p. 2 cited in Steers et al., 2004, p. 379), while Vroom emphasizes the voluntary aspect of motivation, defining it as “a process governing choice made by persons...among alternative forms of voluntary activity” (1964, p. 6). What most definitions have in common is that motivation originates as a result of the interaction of an individual with a situation. Three main aspects are important in this regard: “intensity, direction and persistence of effort toward attaining a goal” (Robbins et al., 2010, p. 140; note 4). For the purpose of the present thesis, the focus is going to be the analysis of work motivation theories.

The importance of motivation in business studies centres especially on the relationship identified by Maier (1955, cited in Latham, 2007, p. 3): Job performance = ability + motivation. In order to improve employee performance, and consequently outputs (Wilson, 2010, p. 123), employers are obliged to learn what motivates their employees, and how to maintain their motivation. In theory, if an employee is highly motivated, he or she will be more productive, “happy”, easier to manage, and more likely to achieve the targeted objectives (Wilson, 2010, p. 124). Or, as Sadri & Bowen (2011, p. 45) put it: “[m]otivated employees work harder, produce higher quality and greater quantities of work, are more likely to engage in organizational citizenship behaviours, and are less likely to leave the organization in search of more fulfilling opportunities”. This retention aspect is another important issue, considering the high levels turnover and associated negatives consequences it may avoid, such as increased labour cost, increased of organisational costs, loss of knowledge and knowledge transfer to competitors, etc.

![Conceptual Model of Motivation](image)

Figure 1. "Conceptual Model of Motivation" (Hälepota, 2005, p.15).

Motivation theory has been a subject of extensive psychological study, although it has also been considered from a sociological point of view (Wilson, 2010, p. 124). Work motivation, specifically, is studied within three different fields that are strongly interrelated: Human Resources Management (HRM), Industrial and Organisation (I/O), and Organisation Behaviour (Latham, 2007, p. 4).
In order to get a thorough grasp of motivation and the development of the concept, a review of earlier theories is needed. This can be a cumbersome process, since the sheer amount of definitions of motivation is considerable (more than 90 before 1981), (P. R. Kleinginna & Kleinginna, 1981, p. 345). One of the reasons why it is a difficult subject to study is that it is positioned at the interface of several disciplines. As a result, only the most relevant work motivation theories that may be linked to sustainability will be fully explained, since the field of work motivation alone is vast (e.g. Pinder, 2008; Latham, 2007; Vroom, 1964; Atkinson, 1964, cited in Pinder, 2008, p. 10).

Introduction - Brief evolution of the concept of motivation

The concept of motivation has evolved throughout history. One of the first theories, **Hedonism**, was formulated by the Greeks who understood that individuals will seek pleasure and avoid pain (Steers & Black, 1994, p. 135; Steers et al., 2004, p. 380). The theory posits that individuals are motivated to do things that bring gratification and avoid pain, and has been criticised for being simplistic and unable to explain the actions made by people in spite of pain (Steers & Black, 1994, p. 135; Steers et al., 2004, p. 380). The question is, can hedonism serve to explain why individuals pursue any form of sustainability – is it to avoid pain in the long run? Commonly, work is a means of implementing sustainability, and, as a daily occurrence, tends to be a much more immediate concern for people. For the majority of individuals, however, work is more of nuisance than a pleasurable experience, and perhaps even painful, even where management attempts to make the work environment as pleasant as possible. Perhaps, then, hedonism is not a sufficient explanation for the pursuit of sustainability.

Around 1890, Freud developed the **instinct theory** (Steers & Black, 1994, p. 135). He believed that an individual’s motivation is a product of the unconscious and based on biology (Freud, 1913, cited in Latham, 2007, p. 7). Therefore, behaviour is influenced by instincts, which can be defined as “an inherited biological tendency toward certain objects or actions” (Steers & Black, 1994, p. 135). In the same vein, Williams James “argued the importance of biological/physiological variables on behavior” (James, 1890, cited in Latham, 2007, p. 7). Instead of explaining the inheritance of instincts, he focused on the importance of learning as a way to create pathways in the nerve centres. These manifested as habits, and, once formed in early life, were “set like plaster” (James, 1892, p. 375, cited in Latham, 2007, p. 8). It was Hugo Munsterberg who injected the employee motivation aspect into the discourse led by the likes of Freud and James. In fact, his systematic observations and interviews of factory workers collected in his work *Psychology and industrial efficiency* (Munsterberg, 1913, cited in Latham, 2007, p. 8) made this study a seminal precursor on employee motivation. Munsterberg made a point of highlighting the need of overcome the “dreadful monotony” and “mental starvation” of work (p. 196, cited in Latham, 2007, p. 8). Naturally, this has to be seen in historical context. At the beginning of the 20th century, the majority of work was manual labour, which was indeed monotonous, not to mention physically demanding. From the instinct theory perspective, human nature tends towards consumption, which is exploited by the capitalist systems. However, herein lies an apparent contradiction to the human survival instinct, which ought to serve the economic and ecological aspects of sustainability, but seemingly does not. Work environment and culture might be the means to enhance those instincts that are conducive to sustainability and dampen those that are not.
Although instinct theory was enormously influential and inspired many followers, it lacks a proper framework, which is why it has failed to develop a coherent explanation of human behaviour, especially when the list of instincts grew to over 6,000 (Steers & Black, 1994, p. 135). This affected its propensity to predict behaviour, something that was criticised by behavioural scientists, and also implied difficulties regarding treatment of patients using psychoanalysis (Bandura, 2004, p. 614).

Other theories were formulated as a reaction to the instinct theory; particularly significant are the theories based on behaviour. For example, John B. Watson’s *Philosophy of behaviourism* (1913, cited in Latham, 2007, p. 9) disagrees with James on the grounds of casual efficacy in relation to consciousness, that is, that behaviour is an automatic or reflexive reaction to a stimulus that can be systematically measured (Latham, 2007, p. 9). Therefore, motivation, an internal psychological process, is of no interest for behaviourists as they are focused on prediction, or influencing particulars, and on learning (Latham, 2007, p. 9). Another important advancement in the field was Thorndike’s law of effect, which states that the frequency of a targeted behaviour increases if rewards are presented immediately after the behaviour occurs (Latham, 2007, p. 10). He also conducted a study on satisfaction, and found that it was rest (or lack of it) which affected a person’s interest, willingness, or tolerance instead of quality or the quantity of the product produced (Latham, 2007, p. 10). This realisation became the foundation of reinforcement theory, which was developed in the early 1920s (by Wodwork, Hull & Thorndike, among others (Steers & Black, 1994, p. 135). Reinforcement theory posits that individuals make decisions based on past experiences, avoiding the behaviours that have led to negative consequences or punishment in the past, and repeating behaviours that lead positive consequences or rewards (Steers & Black, 1994, p. 135). However, the most important contribution of behaviourist studies turned out to be one of the most controversial issues of the 20th century: the relationship between job satisfaction and performance (Latham, 2007, p. 10). This area will be developed further in the next section. Behaviourism as a work motivation theory has an key connection with sustainability, because it may serve to explain why some employees will work for certain organisations but not for others that is, considering wages, retirement plans, and other incentives that companies use to keep employees motivated. Incentives ought to respect sustainability values in order to also sustain the reward; for example, they should not be so excessive as to compromise the futurity principle (Hopwood et al., 2005; Fuller, 2010).

Cognitive theory, put forward in the early 1940s, emphasises future expectations: “Individuals are viewed as rational beings who make conscious decisions about their present and future behaviour on the basis of what they believe will happen” (Steers & Black, 1994, p. 136). Past behaviour influences these decisions only because past cause-effect relationships affect future events. Behaviour is seen as rational – purposeful, goal-directed, and based on the conscious behavioural intentions of individuals. In this sense, sustainability is based on cognitive theory since it is built on conscious and rational decisions. Herein, sustainability is connected to work motivation through the acknowledgment that current decisions affect the future of the employee, for instance, in terms of work conditions, or financial possibilities.

All the theories that have been discussed so far belong to the early stages of motivation theory development. There is an additional set of motivational theories, or “managerial
Theories” (Steers & Black, 1994, p. 136), that focuses more on employee/work motivation and the relationship with the organisation.

The traditional model stresses concern for production. It was developed in the late 1800s (Steers & Black, 1994, p. 136). The most important principle, here, is that money is the main motivational factor for the average worker (Steers & Black, 1994, p. 136). By the same token, Frederick Winslow Taylor (1911) developed scientific management. This movement focuses on job simplification and fractionation, advocating to distribute wages using a piece-rate system to maximise the output (Steers & Black, 1994, p. 136), and offer monetary incentives (Latham, 2007, p. 12). Taylor was convinced that employees were, by nature, lazy, and that money was the only reward that could retain them through ensuring their satisfaction. (Latham, 2007, p. 12). “This notion will later be promulgated by Lawler and Porter” (Latham, 2007, p. 12). Also, Gilbreth and his wife (1914, 1923 cited in Latham, 2007, p. 11) proclaimed that optimum speed and least effort and fatigue in learning could be achieved if One Best Sequence was identified, since learning would then become automatic (Latham, 2007, p. 11). The traditional model is only relevant to economic sustainability and even there it is of limited relevance, with its overreliance on monetary rewards.

The human relations model is centred on concern for people. Around 1930, Hawthorne, Roethlisberger and Dickson’s works showed that there are other factors than money that can motivate (Steers & Black, 1994, p. 138). The Human relations movement understood that at work recognition is very important for individuals who also want to feel important and useful (Steers & Black, 1994, p. 138). Thanks to this theory other aspects and their impact on motivation began to be studied, such as the nature of the job, or group and interpersonal relations. While the traditional model only dealt with the economic sustainability in a very limited way, the human relations model developed the social sustainability to the full extent, but perhaps neglecting the long-term somewhat in the process.

The human resources model has a concern for both people and productivity (Steers & Black, 1994, p. 138). The Human relations model proved to be incomplete, since different employees might want different rewards from their jobs. Some will want to contribute substantially and others not, and some will have the capacity of self-control and self-direction but others might not (Steers & Black, 1994, p. 138). Contemporary models view motivation in more complex terms, assuming that many factors are capable of influencing behaviour: the nature of the “incentive system, nature of job, supervisory style, employee needs, values, perceptions of work environment”, amongst others (Steers & Black, 1994, p. 138). Within the human resources model, motivation is focused on employees as potential human resources. Managers have the opportunity as well as the responsibility to manage these resources in order to ensure that employees’ goals and needs are tended to (Steers & Black, 1994, p. 139). Several ways to do so are identified, such as to fit the person to the job so employees can use their talents to the fullest; to integrate personal goals with those of the organisation, satisfying the employee’s needs while fulfilling organisational goals; and decision-making participation to improve the use of the talents, ideas and suggestions of employees in solving organisational problems (Steers & Black, 1994, p. 139). The human resources model is another step towards combining the economic and social pillars of sustainability; since there is genuine concern for people, social sustainability is being addressed. However, it is debatable whether ecological sustainability can be achieved.
using this model or not. In fact, productivity is not necessarily conducive to ecological and economic sustainability, only if productivity targets fulfil the goals and objectives of the organisation, and these are strategically sound.

**Work motivation theories**

In order to fully understand the concept of work motivation, it is possible to follow a conceptual approach (Steers and Black, 1994, p. 141). There are two basic ways to categorise the theories: one can differentiate between *content theories*, which attempt to identify the factors that explain an individual’s behaviour, and *process theories*, which attempt to explain the psychological processes behind an individual’s behaviour; alternatively, one can distinguish between *cognitive theories*, which rely on observable behaviour, and *cognitive theories*, which focus on understanding the feelings and thought processes that individuals go through when making decisions (Steers and Black, 1994, p. 140; Hertel & Wittchen, 2008, p. 39).

Following these approaches, the theories are organised in the following table.

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<tr>
<th><strong>CONTENT THEORIES</strong> (What factors influence motivation?)</th>
<th><strong>NEED THEORIES</strong></th>
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<td>Need hierarchy theory</td>
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<td>Manifest need theory</td>
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<tr>
<th><strong>ACOGNITIVE THEORIES</strong></th>
<th><strong>PROCESS THEORIES</strong> (What are the underlying processes that cause motivation? How do they work?)</th>
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<tr>
<td>Reinforcement theory</td>
<td><strong>COGNITIVE THEORIES</strong></td>
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<td>Goal- setting theory</td>
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<td>Expectancy /valence theory</td>
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2.3.2 Need theories

There are two main sub-theories within the field of need motivation theories, namely the needs hierarchy theory created by Maslow and the Existence, Relatedness and Growth (ERG) theory.

**a) Need hierarchy theory**

Out of all the need theories the most relevant to the present research is Maslow’s “hierarchy of needs”. It was developed by Abraham Maslow in the 1940s, and was further developed by Douglas McGregor in the 1960s (Steers & Black, 1994, p. 141).

The basic premise of the theory is that people are motivated by a desire to satisfy several different types of need. These needs are arranged in hierarchical form and once the needs of one level are satisfied, people attend to satisfying those needs on the next level up (Steers & Black, 1994, p. 141).
There are two basic kinds of needs, deficiency needs and growth needs (Steers & Black, 1994, p. 142). Deficiency needs are needs that must be satisfied if the individual is to be healthy and secure (Steers & Black, 1994, p. 142). If they are not met, the person will fail to develop a healthy personality (Steers & Black, 1994, p. 142). Growth needs relate to the development and achievement of one’s potential as a person (e.g. self-actualisation, self-development, productiveness, self-realisation) (Steers & Black, 1994, p. 142).

Maslow developed further these needs and concluded that people are motivated by five general needs (Steers & Black, 1994, p. 142). These are innate, i.e. universal and unchanging (Wilson, 2010, p. 124). In order of ascendance, these are:

- **Deficiency needs:**
  - Physiological needs
  - Safety needs
  - Belongingness needs

- **Growth needs:**
  - Esteems needs
  - Self-actualization needs

Implicitly individuals are supposed to move from one to another, starting from deficiency needs, by deprivation and gratification. The definition of these needs can be complicated, especially growth needs that by nature cannot be defined precisely (Steers & Black, 1994, p. 143). There is a particularity regarding the need for self-actualisation: gratification tends to cause and increase the potency of this need instead of decline it; therefore it is in a constant process of becoming (Steers & Black, 1994, p. 143).

Although this is one of the most relevant theories, it has also received important criticism. The main drawback of Maslow’s theory is the lack of sufficient empirical support (Steers & Black, 1994, p. 143; Wilson, 2010, p. 125), somewhat paradoxical given the acceptance level (Wahba and Bridwell, 1976, cited in Steers & Black, 1994, p. 143). Other researchers criticise the methodology (Cullen, 1994, cited in Wilson, 2010, p. 125), accusing of it being biased – culturally biased (Nevis, 1983, cited in Wilson, 2010, p. 125), male biased (Cullen 1994; Cullen and Gotell, 2002, both cited in Wilson, 2010, p. 125), and occupationally biased (Friedlander, 1965, cited in Wilson, 2010, p. 125). The theory has also been criticised as an elitist “mythical quest for the meaning of life” (Shaw and Colimore, 1988, cited in Wilson, 2010, p. 125) and for legitimising and perpetuating existing exploitation systems (Knights and Wilmott, 1974-75, p. 219; Buss, 1979, both cited in Wilson, 2010, p. 125). On the other hand, it permits a more positive view than the scientific movement (Wilson, 2010, p. 125) and makes an honest attempt to find creativity, imagination and ingenuity in the “average person” (McGregor, 1960, cited in Wilson, 2010, p. 125).

Therefore, Maslow’s theory presents a contradiction between the “democratic” premises (Wilson, 2010, p. 125) by which a person can achieve authentic self-fulfilment and make the required choices, and the “aristocratic” premises (Wilson, 2010, p. 125) that would sustain the permanence of the status quo by defending the “self-actualizing elite’s” preferences, choices and values (Aaron, 1977; Cullen, 1997 both cited in Wilson, 2010, p. 125). Maslow believed that biology determines ability, and therefore, some select individuals, if allowed, will be able to develop a “good society” (Hoffman, 1996,
p. 71, cited in Wilson, 2010, p. 125). In fact, this sustains the superiority of some individuals over other and also of some societies over others (Cullen, 1997, cited in Wilson, 2010, p. 125). This is certainly not in line with the principles of social sustainability.

Maslow’s theory has implications for managers who must create the appropriate organisational environment in which employees may satisfy their needs; once the employee’s deficiency needs are satisfied, they are able to focus on the growth needs (Steers & Black, 1994, p. 144). The strength of this theory relies on the support that it gives to the management to encourage employee autonomy and personal growth, since these will enable employees to satisfy esteem and self-actualisation needs (Maslow, 1965, p. 15-233 cited in Wilson, 2010, p. 125). On the other hand, the manager will need to know on which level on the hierarchy the employee is situated in order to support him or her accordingly (Landy & Conte, 2004, p. 347). Also, this implies that the organisation will need an individually adapted ‘motivation plan’ (Landy & Conte, 2004, p. 347).

b) ERG theory

Clayton P. Alderfer’s modification of Maslow’s needs hierarchy distilled Maslow’s five levels into three levels of needs (Steers & Black, 1994, p. 144):
1. Existence needs: needs required to sustain human existence, including physiological and safety needs.
2. Relatedness needs: needs concerning how people relate to their surrounding social environment, including the need for meaningful social and interpersonal relationships.
3. Growth needs: needs relating to the development of human potential, including needs for self-esteem and self-actualisation.

Individuals move up one step at a time, although more than one motivation can be active at a time. However, in addition to satisfaction-progression process, there may also be frustration-regression process (Steers & Black, 1994, p. 144). This model is less rigid than Maslow’s theory. However, it can be said that the critiques that apply to Maslow’s theories can also be applied to Alderfer’s theories (e.g. lack of empirical support).

Both needs theories are connected to all pillars of sustainability. Economic sustainability is reflected in the satisfaction of the physiological needs and safety needs: long-term employment permits individuals to have a stable source of income, which satisfies these needs. In the same vein, ecological sustainability principles help to satisfy safety needs (especially health), while providing building blocks for self-actualisation needs such as values and morality. Finally, the needs of love, belonging and esteem can be satisfied by addressing social sustainability, and self-actualisation needs can also be met if morality and personal values are aligned with those of the company. In the analysis section, particular attention is devoted to assessing which pillars of sustainability influence motivation the most, if any. If this is the case, the criticism levelled against Maslow’s theory would be confirmed, since not all the needs would have to be satisfied in the same way in order to move from one level to another.
2.3.3 Acognitive theories

The acognitive theories deal with the external, and therefore typically observable, manifestations of behaviour.

Reinforcement theory

As mentioned earlier, the reinforcement theory is based on Thorndike’s law of effect and states that a conduct that is reinforced will tend to be repeated (or inhibited if that is the action targeted) (Steers & Black, 1994, p. 108; Harris & Kleiner, 1993, p. 1). However, the difference to motivation is that while motivation is internal, the reinforcement is an external action, and typically observable (Steers and Black, 1994, p. 108-110). There are four main types of reinforcement depending on the action/reaction desired: positive, negative (or avoidance learning), extinction, and punishment (Steers & Black, 1994, p. 108; Harris & Kleiner, 1993, p. 1). Positive reinforcement is achieved through stimuli that encourage the possibility of a certain conduct to occur. These include such rewards as praise, recognition or a paid bonus (Steers & Black, 1994, p. 109; Harris & Kleiner, 1993, p. 1). Negative reinforcement or avoidance learning focuses on following conducts that would avoid some negative consequence (Steers & Black, 1994, p. 110; Harris & Kleiner, 1993, p. 1). The extinction principle assumes that the lack of some positive reinforcement will result in the ending of an undesired behaviour (Steers & Black, 1994, p. 110; Harris & Kleiner, 1993, p. 1). Punishment reinforcements are outcomes of an undesired behaviour, and their use one of the most controversial issues in behavioural change strategies (Steers & Black, 1994, p. 110). Though a very interesting work motivation theory, it is difficult to envision a connection with sustainability. The main consequence derived from this theory would be the discussion of whether to contract people with the same values, or to try to modify the values held by current employees (akin to “socialization of employees”, which will be discussed further in the next section). In a company based on sustainability principles this is a critical issue, since to change an employee’s mindset would go against social sustainability.

2.3.4 Cognitive theories

Cognitive, or process, theories go beyond the relationship between the satisfaction of needs and productivity (Wilson, 2010, p. 131). They acknowledge the existence of other factors, for example, that individuals have feelings which impact on their work, and perceive how fairly they are being treated by others (Steers & Black, 1994, p. 167).

a) Social learning theory

Bandura’s theory defines the process of social learning as shaping behaviour through the reciprocal interaction of an individual’s behaviour, cognition and environment (Steers & Black, 1994, p. 105). This implies the individuals “control over environment as the environment controls over the individual” (Steers & Black, 1994, p. 105). In the same way, the individual has some control over learning, making it an interactive process (Steers & Black, 1994, p. 105). Social learning comprises four pillars: attention, retention, reproduction and incentives, by which learning is made possible (Steers & Black, 1994, p. 105). The more attention and retention, the better the reproduction;
incentives may serve to enhance the overall process (Steers & Black, 1994, p. 105). Social learning theory reinforces again the idea of an organisation’s ability to influence its employees’ skills, abilities, but not also value systems. This can be beneficial to constructing the necessary value system in order to ‘push’ the sustainability concept represented by the company. Also, as a theory, it is closely related to the social sustainability pillar.

b) Equity theory

This is one of most popular cognitive theories. (Steers & Black, 1994, p. 167; Wilson, 2010, p. 131). Stacey Adams and Weick’s theory has two premises: a) that individuals are able to see social relationships as exchange process and would evaluate these economically; b) that perceptions of the assessment of the exchange are not always accurate and are affected by other factors (Steers & Black, 1994, p. 167; Wilson, 2010, p. 131). Individuals will evaluate the “inputs” that they introduce into the social relationship, such as work (skill, ability, education, age, training, effort, etc.) and will compare them with the “outcomes” (monetary rewards, status, career development opportunities, etc.). These outcomes will also be compared with those obtained by other individuals. If there is perceived inequality, without reason, between the inputs of one individual and the rewards obtained in comparison with others, the individual will experience feelings of deprivation (Wilson, 2010, p. 131). The individual will need to perform a “cognitive adjustment” to deal with the inequality: either the inputs or outputs will be corrected, or he or she will choose other individuals for purposes of comparison (Wilson, 2010, p. 131). Although this theory normally explains negative cognitive adjustments, such as theft to compensate for underpayment, it is possible to also envision a positive relationship, in which other aspects are more valued by employees to justify the inequality (Wilson, 2010, p. 131). In the same way that this explains why certain individuals will work for non-profit organisations – they will consider more important the objectives of non-profit organisations than monetary rewards – this could also explain the reason why employees might want to work for sustainable companies, even if there is a certain inequality concerning some aspects of their job compared to others in the same industry.

The main criticism levelled against this theory is that it cannot fully explain the reasons behind the reactions to inequality and their interrelationship (Cook and Parcel, 1977, cited in Wilson, 2010, p. 131; Greenberg, 1993, p. 99-100). However, it is still fundamental to understanding employee values and belief systems. For the organisation it can be of great importance to “exploit” them or at least to avoid the negative consequences that might result from failing to acknowledge them.

c) Goal-setting theory

Locke and Latham’s theory is based on the assumption that individuals are driven to reach goals (Greenberg & Baron, 2000, p. 138). There is a cognitive process by which the individual will compare his or her present capacity with the perceived one needed to attain goals. If there is a gap but the individual still thinks that is possible to reach the goal, he/she will be motivated to work hard and, once the goal is achieved, will feel satisfied and content (Greenberg & Baron, 2000, p. 139).
The suggestions made to enhance motivation include: to assign specific goals (preferable to “do your best”), to assign difficult but acceptable performance goals, and to give feedback on the process of goal completion (Greenberg & Baron, 2000, p. 140-141). Doing so not only improves self-efficacy, but also makes the individual more goal-committed (Greenberg & Baron, 2000, p. 139). As discussed in the next section, this theory has important consequences for participation decision-making and commitment. Goal-setting theory is relevant to sustainability only if it is also a goal of the employee, and therefore a source of motivation. However, there are limitations to what an employee will consider a sustainability goal; for example, an employee might not have the means to influence the management of a company and therefore will have limited influence on the economic sustainability of the company; but sustainability will be able to motivate his or her choices on how to conduct a work project, respecting environmental principles, for example.

d) Expectancy/valence theory

The Expectancy or Valence Theory was put forward by Victor Vroom, Porter and Edward Lawler. The theory states that when individuals expect to achieve preferred rewards they will be motivated to work (Greenberg & Baron, 2000, p. 149; Harris & Kleiner, 1993, p. 1; Halepota, 2005, p. 14). The theory assumes the rationality of the individuals, and their ability to know their own capabilities and to identify the rewards associated to the job. The theory does not focus on what individuals think, but acknowledges that they can be affected by other organisational environmental factors (Greenberg & Baron, 2000, p. 149).

Although there are different versions, the basic elements of the theory are expectancy, instrumentality and valence (Greenberg & Baron, 2000, p. 149). Expectancy refers to the individual’s belief that the effort invested in doing something will achieve some kind of reward (Greenberg & Baron, 2000, p. 149; Harris & Kleiner, 1993, p. 1; Halepota, 2005, p. 14). Expectation of reward differs from individual to individual (Halepota, 2005, p. 14). Instrumentality highlights how performance is viewed as instrumental by the individual in order to obtain the desired reward (Greenberg & Baron, 2000, p. 149; Halepota, 2005, p. 14). Finally, valence is the perceived value of the rewards in relation to the effort invested in obtaining it (Greenberg & Baron, 2000, p. 149). It is possible to input these three elements into a mathematical operation that calculates job performance (Steers & Black, 1994, p. 181). Naturally, results will vary from individual to individual, since there will be different perceptions and associated expectations of reward. The theory can also explain promotions, changes in job characteristics or environment, training, rewarding, pay changes, and other similar changes (Halepota, 2005, p. 14). The major drawback of this theory is that individuals would only make these careful considerations and complicated calculations when taking an important decision, meaning that expectancy theory can only account for those key decisions Wilson, 2010, p. 134).

This theory connects to sustainability in the sense that the expected reward might be the achievement of economic, ecological and social sustainability objectives. For example, preserving the environment is the reward that some employees might expect from their job, and if this is a higher priority than money it will motivate them regardless of the economic exchange from that job.
2.3.5 Important issues related with motivation

This section covers some of the linkages between motivation and sustainability. Since these can be analysed from the perspective of different motivation theories, it was considered more appropriate to study them separately from the theories and once these were presented.

a) Motivation and Economic Sustainability

Having already discussed the hierarchy of needs and the satisfaction of Physiological needs and Safety needs, perhaps the most important point that connects to economic sustainability is how money/pay and extrinsic rewards affect motivation. This linkage is also mediated by commitment (this will be discussed in greater depth in Motivation and Social Sustainability).

When thinking about motivation and sustainability, in particular economic sustainability, the first aspect to consider is money, one of the most important and researched 20th century controversies (Latham, 2007, p. 99). With the scientific movement, pay was used to achieve efficiency and effectiveness (Taylor, 1911, p. 33; Latham, 2007, p. 99), and only when surveys were introduced, other factors were taken into consideration (Viteles, 1932; cited in Latham, 2007 p. 99). When the effect of pay on job satisfaction, was studied Herzberg (1966, cited in Latham, 2007, p. 99) discovered that money may not have a positive effect on job satisfaction but a negative impact on job dissatisfaction. It was established that pay is one of the most important factors when searching for and accepting a job (Barber & Bretz, 2000; cited in Latham, 2007, p. 99), but not how much it affects the decision. Edward Lawler’s model (1971, cited in Latham, 2007, p. 100) stated that pay would be important to an individual while satisfying needs and only as important as these needs are. This is especially true when pay is perceived by employees as fundamental to satisfying the employees’ needs for autonomy and security, and not so much for the self-esteem and affiliation, as the empirical results showed (Lawler, 1971, cited in Latham, 2007, p. 100). The importance of pay to an individual as a motivator is tied to the perception of its performance: The employees’ motivation can be affected by the company’s job evaluation system that establishes the rewards. If it does not work correctly, e.g. both good and poor performers are paid the same, the job satisfaction and performance relationship will be negative or zero (Lawler 1971, cited in Latham, 2007, p. 100). Edward Deci argued that money could kill a person’s intrinsic motivation, since extrinsic rewards intrinsically valued could be perceived as controlling, especially if excessive (Deci, 1975, cited in Latham, 2007, p. 101). The Deci’s self-determination theory states that people need to feel that they have freedom in choosing their actions (Deci, 1975, cited in Latham, 2007, p. 101). Receiving a monetary reward for doing something that one would have done anyway, because of its intrinsic appeal, causes one to make an attributional shift regarding the cause of one’s behaviour from self to others. This, in turn, would reduce an individual’s intrinsic motivation in this instance.

However, Locke and Latham’s (1984, 1990 cited in Latham, 2007, p. 101) approach to goal-setting theory has established that money has no effect unless it leads to setting of and commitment to specific high goals. Bandura (1989, cited in Latham, 2007, p. 101) highlighted the need to understand other aspects regarding motivation, since the focus on pay neglects effective self-evaluative rewards of goal attainment. For example, an
individual’s effort and performance can be affected by forethought regarding outcomes, in the same way that the surveys conducted in the 1930s were affected by the fear of job loss (Latham, 2007, p. 101).

The High Performance Cycle (Latham, Locke & Fassina, 2002; Locke & Latham 1990a, cited in Latham, 2007, p. 101) explains the relationship between the increase of an individual’s performance and the rewards; this relationship only exists if there is an increase in satisfaction together with job commitment to the organisation and the acceptance of future challenges (Latham, 2007, p. 101).

Furthermore, it is necessary to take into account that what individuals say is not always what they believe. A study highlighted the gap between these two as well as the risk of underestimating the importance of money as a motivational factor (Rynes, Gerhart, & Minette, 2004). It is not the only important one, and it is not always the main factor, but its impact cannot be denied (Rynes, Gerhart, & Minette, 2004, p. 385). This is especially relevant when considering type of employees and the relationship between performance and pay (Rynes, Gerhart, & Minette, 2004, p. 386). Again, this reinforces the argument that some individuals will be motivated to work in an economically sustainable company, provided that it is also committed to support their wages in the long term. Also, when considering some economic aspects such as salaries, is also important to take into account the age of the employee. Money is generally more important when starting a family but not so much at the end of the career (Hertel & Wittchen, 2008, p. 49).

b) Motivation and Ecological Sustainability

Ecological sustainability is expressed in existing ecological values on the employee side and ecological principles defended by the company. Although the discussion on the values and their importance to work motivation, herein, is specifically connected to ecological sustainability, these values are just as relevant to social sustainability. In order to prepare the discussion for the latter, the values theme will be developed here in general terms, not only referring to ecological values.

A distinction between needs, values and attitudes is needed since they are closely related. There are several definitions of values, with one of the most popular ones credited to Rokeach (1969, p. 170, cited in Pinder, 2008, p. 92): “an enduring belief that a special mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states”. This definition highlights both the means and the ends (Pinder, 2008, p. 92). Values are the basic principles of an individual, rooted in his/her needs (Latham, 2007, p. 149) and can be considered as trans-situational goals (Schwartz & Sagie, 2000, p. 467) or the “cognitive representation of the underlying needs” (Pinder, 2008, p. 92). However, whilst needs are instinctive, values stem from experience and cognition (Latham, 2007, p. 149) and while the latter may be subconscious, they tend to be more easily verbalised than needs (Latham, 2007, p. 149; Pinder, 2008, p. 92). Researchers agree that individuals are moved more by their values than their needs, even though most theories assume that individuals have “basic, underlying needs” (Pinder, 2008, p. 93). Attitudes are “cognitive and affective orientations toward specific objects and situations” (Pinder, 2008, p. 93). Under value theory, an individual behaviour is the manifestation of his/her values and attitudes (Pinder, 2008, p. 93).
According to Pinder (2008, p. 92), “values have a key role in human behaviour and work in particular”. The consideration of values in the workplace is about the reasons people work and why they behave the way they do (Posner & Munson, 1979; Sikula, 1971 both cited in Pinder, 2008, p. 91). Values affect job satisfaction by defining it, plus the affective relationship that individuals have with their jobs (Locke, 1969, cited in Pinder, 2008, p. 523), and also their career decisions (Judge & Bretz, 1992, cited in Pinder, 2008, p. 523). Blood (1969, p. 458) agrees that “subscribing certain values in the course of a career contributes to satisfaction”. Also Feather (1990, 1992, 1995; Feather et al., 1998, cited in Verplanken & Holland, 2002, p. 435) considers that the perceived likelihood of an outcome may influence a decision depending on the values that the individual has. In connection to sustainability, this implies that an individual will make decisions based on what she/he considers more important, and if sustainability is part of the value system, then it would influence her/his decision. Researchers make an important distinction between values and work values; the first would be values in the general use of the word, while the latter are the reasons behind the behaviour of an employee (Pinder, 2008, p. 93). The distinction attempts to highlight that through work an individual will pursue what work can bring and he/she values, that is, activities, conditions, status, outcomes and things (Pinder, 2008, p. 94). In the same way it could be possible to distinguish between work values and sustainability values, or sustainability values that can be achieved through work, e.g. as environmental protection.

It is possible to study how values affect choices, and how these motivate decisions. In the 6th study conducted by Verplanken & Holland (2002, p. 443) it was shown that those individuals with environmental values were likely to vote for a green party. However, this study also contributes two less obvious conclusions: it seems that sometimes individuals do not live according to their elaborate value systems; and that given a situation that affects a value, individuals react to it in a spontaneous manner since they have the motivational and cognitive structures in place (Verplanken & Holland, 2002, p. 445). Also, values change over time, as several empirical studies have found (Nord, et al., 1988, Weber, 1930; England, 1991; cited in Pinder, 2008, p. 94; Inglehart, 1981, cited in Pinder, 2008, p. 95). Nonetheless, it is difficult to show how they change. Some researchers have been able to prove that attitudes changed in accordance with changes in jobs and job roles (Lieberman, 1956, cited in Pinder, 2008, p. 95); also, a positive relationship between education and worldly values has been detected (Armon, 1993, cited in Pinder, 2008, p. 95). On a more long-term note, it is also possible to consider changes in values as “the content-related changes of work motivation” that take place over a lifespan (Hertel & Wittchen, 2008, p. 48). There are several studies that have established a relationship between age and work-related interests, needs, and values. For example, it is more likely that aspects such as a challenging environment and possible feedback are valued less over time, though other aspects could increase in value, such as security and safety (Warr, 1987, cited in Latham, 2007, 100). As mentioned earlier, economic aspects such as salaries could be more important when starting a family than at an older age (Hertel & Wittchen, 2008, p. 49).

Values are also the very essence of organisational culture. In fact, organisational culture is defined as the “shared beliefs, norms, values, knowledge, and tacit understandings held by members of an organization or organizational subunit (Pinder, 2008, p. 56). Although there is an ample body of research on organisational culture, little empirical
attention has been devoted to link with work motivation. Pinder (2008, p. 57) points out that the connection is expected, but researchers have predominantly focused on performance, as opposed to work motivation, when studying the empirical consequences of organisational culture. Only Weiner and Vardi (1980, cited in Pinder, 2008, p. 57) have adapted a theoretical framework, by which “commitment results from the shared norms and values that characterize the organization’s culture”. It is assumed that behaviour will follow the intentions as soon as these are established, but there is no empirical background to support it. Also, an important distinction has been made between climate and culture. For Pinder (2008, p. 58) climate would be the individual perception of rules and other formal structures as procedures, while culture is the shared language, values, traditions and beliefs of a group.

Somewhat different, but still related, to organisational culture is societal culture. Hofstede conducted his most seminal study on the effect of society on the values of employees (1980, 1984; cited in Latham, 2007, p. 151). After studying 50 countries, he identified four broad values: power distance, individualism, masculinity and uncertainty avoidance (Hofstede, 1980, 1984 cited in Latham, 2007, p. 151). Power distance refers to the level of acceptance of inequality on the part of the less powerful person in any given society (Latham, 2007, p. 151). Individualism refers to self-interest as opposed to collectivism (Latham, 2007, p. 152). Masculinity refers to personality traits that are predominant in some societies, such as “assertiveness, ambitiousness and competitiveness” whereas “quality of life, interpersonal relationships, and value for the weak” are traits attributed to feminine societies (Latham, 2007, p. 152). Uncertainty avoidance is a “cultural characteristic” that explains the level to which individuals are made anxious by situations perceived as unclear, unpredictable or unstructured (Latham, 2007, p. 152). This is something to take into account when considering different cultures: Brockner et al. (2001, cited in Latham, 2007, p. 152) found that people responded less favourably to low levels of voice in countries low on power distance (USA and Germany) than their counterparts in high power distance countries (People's Republic of China, Mexico and Hong Kong). This would have important implications for the research process when conducting interviews with people from different countries, as it can potentially affect the quality of the data.

For Pinder (2008, p. 96) the link between work motivation, satisfaction, and other aspects is through homogeneity and strength of values within a culture, specifically an organisational culture. In order to achieve it, organisations have two options: either select people that already possess the qualities (values) that they are looking for, or once hired, “socialize employees”, thereby standardising the values that management is looking for (Pinder, 2008, p. 96). McDonald and Gandz (1992) state that the best strategy would be a mix of both, and that is what companies commonly do. However, there is an on-going discussion on whether this constitutes managerial control and whether alteration of employee values is ethical on behalf of the company (Pinder, 2008, p. 96-97). Also, in the same way that it is considered unethical or illegal to select employees on the basis of their gender, race, or other personal traits, would it not also be considered unethical to select them on the basis of their values? Regardless, employees assume that companies have the right to do so and, when hiring, to modify those values also (Pinder, 2008, p. 97).

This person-environment fit is clearly important, as the Hawthorne studies have already shown that employees value something other than money (Pinder, 2008, p. 99). There
are differences between genders (Pinder, 2008, p. 99) as well as personality. One interesting approach is the one that Torbert (1994; cited in Pinder, 2008, p. 99) cites as his personal assessment of “good work”, which is characterised by: good money, good friends, good ideas, with the latter carrying the highest value, since it represents a combination of the former two. Good money, herein, refers not so much to the sheer quantity as to having enough money to live comfortably and blend the remainder of the values. This is how Torbert (1994; cited in Pinder, 2008, p. 99) would go about obtaining a good life. This shows that what motivates different people is also dependent on personality. Barrick, Stewart & Piotrowski (2002, cited in Furnham, 2005, p. 285) conducted a study that investigated the impact of personality on motivation amongst a sales force in the US. They agreed that personality qualities were “distal variables” while motivation arrays were “proximal variables” (Barrick, Stewart & Piotrowski, 2002, cited in Furnham, 2005, p. 285). Furthermore, Kanfer and Ackerman (2000, cited in Furnham, 2005, p. 285) revealed a correlation between personality and work motivation (and age and gender, but most importantly, personality). However, the most interesting studies in this regard are the ones undertaken by Judge and Ilies (2002, cited in Furnham, 2005, p. 285) and Judge, Heller & Mount (2002 Furnham, 2005, p. 285). Judge and Ilies concluded that stable, “agreeable and conscientious individuals set themselves higher goals”, while “conscientious individuals had higher expectancy motivation” and “stable extraverts had higher self-efficacy motivation” (Judge and Ilies (2002, cited in Furnham, 2005, p. 285). The second study was focused on the Big Five personality traits and their relationship with job satisfaction. The authors confirmed that stable extraverts tend to be happier at work (Judge, Heller & Mount, 2002; cited in Furnham, 2005, p. 286). Other important findings were how the Big Five may influence an individual: cognitively, they may influence how an individual interprets job characteristics; affectively, they may impact on mood and, thus, job satisfaction; and behaviourally they can modify the achievement of goals and therefore, result in happier employees that display certain traits such as emotionally stability, extraversion and conscientiousness (Judge et al., 2002, p. 536, cited in Furnham, 2005, p. 286).

c) Motivation and Social Sustainability

The discourse surrounding motivation and social sustainability is a complex one. It spans several areas, some of which have already been discussed including values. One of the most relevant discussions centres on job-related attitudes and their impact on work motivation. The job attitudes that will be discussed in connection to social-sustainability are commitment (or attachment to the organisation), job involvement (or the degree of devotion of an individual to a job) and job satisfaction (or level of satisfaction obtained from an organisation in relation to needs) (Caramelli & Briole, 2007, p. 294; Pinder, 2008, p. 269).

The first attitude to be discussed is job satisfaction. Job satisfaction is an emotional reaction for Locke (1976, p. 1307). Individuals react emotionally to the perception that their jobs fulfil their job values (nor not), “providing and to the degree that those values are congruent [with their] needs”. The relationship between performance and job satisfaction (satisfied employee equals more productivity) has proven to be a difficult subject to study, with many, often contradictory, views (Wilson, 2010, p. 134). Although the majority of non-researchers believe in the relationship (Fisher, 2003 cited in Wilson, 2010, p. 135), researchers do not necessarily agree. Lawler argued that satisfaction could be cause and consequence of performance at the same time. The relation of job
performance and job satisfaction is an on-going process that occurs continuously (Latham, 2007, p. 100). However, Thorndike’s (1917, cited in Latham, 2007, p. 105) research showed that speed and quality remained the same regardless of satisfaction. While for Latham, positive attitudes towards the job increase productivity (Latham, 2007, p. 105), for Brayfield and Crockett (1955, cited in Latham, 2007, p. 105) there is little or no relationship. Vroom (1964, cited in Latham, 2007, p. 105) too found a median correlation of merely 0.64, but he does agree that satisfied people “have greater opportunity to influence decisions that have effects on them” (Vroom, 1964, p. 118).

Based on expectancy theory, Lawler and Porter (1967, cited in Latham, 2007, p. 105) stated that the relationship between performance and satisfaction is as follows: performance leads to satisfaction because individuals will like what they do well, rather than vice versa. However, Bandura (1989, cited in Latham, 2007, p. 106) argued that based on social cognitive theory, individuals will experience sense of satisfaction when they value levels of performance. This self-satisfaction will lead to them setting higher-level goals once valued goals are achieved, rather than reducing performance (Bandura, 1997; Cervone, Jiwani and Wood, 1991, both cited in Latham, 2007, p. 106). In this way, self-satisfaction predicts more performance motivation than past performance, conditioning future levels of performance (Bandura & Cervone, 1983, cited in Latham, 2007, p. 106). In the tradition of goal-setting theory, too, satisfaction is the result of achieving valued goals (Locke and Latham, 1990a, cited in Latham, 2007, p. 106). In Judge et al. (2001, cited in Latham, 2007, p. 106) the relationship between satisfaction and performance proved to be stronger when considering the overall performance, rather than the measure of an individual's productivity. The relationship was also stronger in enriched/complex jobs versus simplified jobs. Finally, dissatisfaction can occur if the goal achievement does not coincide with an increase in competence, real or perceived (Latham & Yukl, 1976; Parker, 2003, both cited in Latham, 2007, p. 106). This explains the findings of Vroom (1964), and Brayfield and Crokett (1955) since the literature that they reviewed was predominantly about simplified jobs (Latham, 2007, p. 106).

Other researchers have focussed their attention on the impact of job satisfaction/dissatisfaction. For example, Organ (1977, 1990 cited in Latham, 2007, p. 106) established how job satisfaction leads to organisational citizenship behaviours (meaning helping co-workers, customers, etc.). Ostroff (1992, cited in Latham, 2007, p. 106) studied the individual level of satisfaction and organisational performance, and established a correlation: high productivity occurs when morale is also high. Similarly, Schneider (1985, cited in Latham, 2007, p. 106) discovered a causal relationship between satisfaction and performance. Argyris and McGregor concur instead with Ostroff’s findings (Latham, 2007, p. 106) that the reality is somewhat more complex: individual level attitudes and behaviours become shared and produce an emergent collective structure of attitudes, norms, and behaviours that affect organisational outcomes (Latham, 2007, p. 107).

Job autonomy has been shown to be a key determinant of job satisfaction, organisational commitment, and intrinsic motivation, amongst other things (Dysvik & Kuvaas, 2011, p. 368). Vroom and Viteles were among of the first to display awareness of the dangers of control over work methods, stating that to deprive employees of control over work methods will have negative affective consequences (Vroom, 1964, p. 130). Control, while increasing productivity, reduces satisfaction. Latham (2007, p. 160) confirms this
view with his finding that routine unenriched jobs can be a cause of job dissatisfaction. That is why there is a special need to design jobs that allow a certain degree of autonomy. Alpander & Carter (1991) show that Germans have a special relation with the need of control, in the sense that – unlike Italians, Belgians, Spanish and others – if they are given more autonomy, their need for belongingness increases. The best way to facilitate this is to encourage group work (Alpander & Carter, 1991, p. 29. Given the context of the studied company, this is highly relevant to the present research. In fact, 90% of the companies that appear in the Fortune 1000 (Lawler, et al., 1995, cited in Latham, 2007, p. 160) follow task autonomy policies in order to increase satisfaction while encouraging work responsibility.

Job autonomy is also a component of Hackman & Oldham’s (1975) Job Diagnostic Survey. They proposed four positive personal and work outcomes, namely high internal motivation, high work satisfaction, high quality performance, and low absenteeism and turnover. According to the authors’ theory, there are several prerequisites, or ‘critical psychological states’ for these ideal outcomes to be attained: experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of the results of the work activities. If all the outcomes are to be realised, all three of the psychological states must be fulfilled. They, in turn, are made up of five core job dimensions, with certain dimensions pertaining more or less directly to the critical psychological states. Experienced meaningfulness of the work is increased chiefly by skill variety, task identity, and task significance. Experienced responsibility for work outcomes is directly related to job autonomy. Knowledge of results increases as job feedback increases. The theory has since been developed further, and additional dimensions have been found to impact on motivation (Morgeson & Humphrey, 2006).

The next job attitude to be discussed is organisational commitment: “an extreme form of loyalty to one’s organization” (Pinder, 2008, p. 291). It is important to highlight that the object of commitment is the organisation not the profession, occupation, career, job, work group or department (Pinder, 2008, 2008, p. 292). Researchers have made attempts to differentiate three different approaches: affective commitment, normative commitment and continuance commitment. Affective commitment is characterised by three interrelated intentions and attitudes: “(a) a strong belief in and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; (c) a definite desire to maintain organizational membership” (Porter et al., 1974, p. 604). Normative commitment is defined by Wiener (1982, p. 418) as “totality of internalized normative pressures to act in a way that meets organizational interests.” Continuance commitment (Meyer & Allen, 1997 cited in Pinder, 2008, p. 292; Meyer et al. 1989, p. 152) or calculative commitment (Morrow, 1993 cited in Pinder, 2008, p. 292) refers to the perceived costs linked with departing the company (Meyer et al. 1989, p. 152). While they are separate concepts, it is highly challenging to conceptualise and differentiate all three commitments, especially the last two.

When considering organisational commitment, researchers disagree on whether it constitutes a trait, a propensity or a value (Pinder, 2008, p. 293). Commitment, or a portion of it, can be part of an individual’s personal values or personality traits (Angle & Lawson, 1993, cited in Pinder, 2008, p. 293). It can also be a propensity, that is, “personal characteristics and experiences that individuals bring to the organization” (Lee et al., 1992, p. 15). O’Reilly and Chatman (1986, p. 493) identify three different psychological reasons that account for employee commitment to organisations: “(a)
compliance or instrumental involvement for specific, extrinsic rewards; (b) identification or involvement based on a desire for affiliation; and (c) internalization or involvement predicated on congruence between individual and organizational values”.

Unsurprisingly, commitment can produce benefits for both the employee and the organisation. To employees, it can bring a sense of prestige, status and identity (Pinder, 2008, p. 294 based on Romzek, 1989, p. 656): the higher the commitment, the higher the satisfaction. Further, commitment can be a source of identity, comfort and security (Mowday et al. 1982, cited in Pinder, 2008, p. 294). It is because of this emotional attachment, or commitment, that losing a job may have traumatic consequences for the employee. Landy & Conte, 2004, p. 402). Landy & Conte (2004, p. 402) argue that for some individuals the sense of losing one’s job is comparable to the event of quitting one’s job. However, the major difference lies in the concept of commitment. The modern configuration of employment has made work much more unsecured that it was a few decades ago. This insecurity affects all employees, but especially those who have the least reason to worry thanks to their high levels of performance and motivation (Landy & Conte, 2004, p. 404). There are different reasons that explain why commitment is beneficial for organisations (Randall, 1987, p. 461). The main reason is that high levels of commitment enhance productivity, since employees perform better, are less prone to absenteeism, to be late or leave, and more likely to do more and engage in good citizen behaviours (Katz & Kahn, 1978; Mowday et al., 1982; Organ, 1990; Organ & Knovosky, 1989, all cited in Pinder 2008 p. 295).

Job commitment is similar to job involvement (Pinder, 2008, p. 224). Influenced by personality traits and environmental factors (Brown, 1996, p. 235), job involvement is characterised by different aspects: a motivating and challenging job; work commitment with no thoughts of quitting; and interaction with co-workers that generates feedback (Brown, 1996, cited in Pinder, 2008, p. 303). Some empirical research suggests that job involvement translates into satisfaction and intrinsic motivation (Lawler & Hall, 1970, cited in Pinder, 2008, p. 3003), but some researchers argue this involvement would be towards the job a not the employer (Stevens et al., 1978; Weiner & Vardi, 1980, both cited in Pinder, 2008, p. 303). This constitutes the main difference between job commitment and job involvement.

In order to counteract the possible effect of excessive job involvement, companies tend to enhance work-life balance (Nohria, et al., 2008, p. 83). Although new technologies, such as telecommuting, have created opportunities to balance the work-family equation, they also interfere with non-work time. It is often considered desirable to be reachable 24/7, so as to demonstrate work commitment (Landy & Conte, 2004, p. 406), and that work takes precedence over non-work (Morgan, David, 1988, p. 20). As of now, I-O psychologists know little about emotional or attitudinal experiences associated with telecommuting (Landy & Conte, 2004, p. 404). However, the fact that this type of work might not be perceived as such by family and friends may have emotional (my work is not important) or practical impacts (being constantly interrupted) (Landy & Conte, 2004, p. 405). This increasing difficulty to distinguish between work and nonwork needs to be addressed by an organisation that endorses work-life balance and family values (Landy & Conte, 2004, p. 40).

Job commitment may exert significant effects on image and identity, too. Employees do identify with organisations, and as Ashforth and Mael (1989) indicate, identification is
different from commitment. Individuals may extract their social identity from a union, department or work group, and this act can bring benefits to the person (Asforth and Mael, 1989, cited in Pinder, 2008, p. 294), but also to the organisation. A study undertaken by Dutton and Dukerich (1991) highlighted the relationship between the individual’s sense of identity and the organisational image and identity, implying a strong mediating role of organisational actions (Dutton & Dukerich, 1991, p. 550). As a result, is not difficult to imagine why employees would be committed to and identify themselves with an organisation that pursues ecological sustainability, and even more so if it is the core business objective. However, organisational image and as projected on the exterior is as important to employees as the actual action, something that must be consider by the communication management.

Where pay is lower than the industry average, as is often the case, for instance, in non-profit organisations, achieving commitment may pose a challenge as suggested by Alatrista & Arrowsmith’s (2004). If pay is low, associated status also tends to be low (Alatrista & Arrowsmith, 2004, p. 545). Therefore, it is of crucial importance to effectively communicate the “psychological contract”.

It has been acknowledged that organisational performance may not be equal to the sum of individual performance; however, collective employee attitudes are strongly related to organisational performance (Ostroff, 1992; Koys, 2001; Fulmer, Gerhart, & Scott, 2003; cited in Park, 2011). There are two different types of theories that account for the impact of participation on performance. One is the affective approach, and it is concerned with affective factors such as commitment, morale, and satisfaction. The other is the cognitive approach and is concerned mainly with the impact of knowledge and information sharing. These two approaches can be considered complementary rather than contradictory (Park, 2011, p. 2).

According to the affective approach, employees may obtain either intrinsic or extrinsic rewards from participation schemes. Intrinsic rewards include psychological benefits such as a sense of achievement and satisfaction, whereas extrinsic rewards are of a financial and material nature (e.g. wages and benefits) (Kinicki & Kreitner, 2008; cited in Park, 2011, p. 2). Both intrinsic and extrinsic rewards are intended to motivate employees to work and contribute to the organisation’s success. This is in line with exchange theory, which posits that employees make contributions to the company in exchange for rewards that they receive from the former (Park, 2011, p. 2). Specifically, this will impact different relationship tangents between the organisation and its employees. Decision-making participation may strengthen social-exchange relationships between the company and its employees, while financial participation may boost economic-exchange relationships.

When employees are given the opportunity to partake in decision-making they obtain intrinsic rewards in the form satisfaction and a sense of achievement. These intrinsic rewards may make employees feel appreciated and supported by their company (Rhoades, Eisenberger, & Armeli, 2001; Rhoades & Eisenberger, 2002; cited in Park, 2011, p. 2). In the long run, this will foster organisational commitment on the employee side. Bakan, Suseno, Pinnington, and Money (2004; cited in Park, 2011, p. 2) confirmed this theory when they found that participation in decision-making was conducive to organisational commitment.
The cognitive approach may also account for organisational commitment. Herein, the argument is that employees are more knowledgeable about their jobs and, therefore, capable of making better decisions than their managers (Wagner et al., 1997; cited in Park, 2011, p. 2). This effect may increase as the size and complexity of the organisation increases. One theory that accounts for the link between employee participation and motivation is expectancy theory. It predicts that employees are significantly more motivated when the perceived relationship between goal accomplishment and expected outcomes is strong (Florkowski, 1987; Kinicki & Kreitner, 2008; Vroom, 1964; cited in Park, 2011, p. 2). Participation in decision-making may allow employees to obtain information about which behaviours will be rewarded. This, in turn, creates pressure on management to share potentially confidential information with their employees (Hammer, 1988; cited in Park, 2011, p. 3). If management fails to do so, employees will become frustrated and demotivated (Riordan et al., 2005; cited in Park, 2011, p. 7).

If it is to be effective, it is crucial that participation is substantial. Kirkman and Rosen (1999; cited in Park, 2011, p. 7) established that more empowered teams achieved higher levels of performance than less empowered teams. One might anticipate collectivist HR practices, such as self-managing teams and group incentives, to be better received in more collectivist cultures, such as Asian countries, than in more individualistic countries such as the UK and U.S. However, Park (2011, p. 7), found these collectivist HR practices to work well in a relatively individualistic nation, the UK (Park, 2011, p. 7).

In relation to the present research, it is interesting to consider the motivation that stems from working in groups, as argued by Hertel & Wittchen (2008, p. 49). In this regard, the authors emphasise the role of the company as a social entity as well as current team working preferences. Research in this area shows that there are “motivation losses”, that is, reductions of motivation when comparing group work with individual work (Hertel & Wittchen, 2008, p. 49). Furthermore, there is a risk that the individual contribution will not be recognised, i.e. “social loafing” (Hertel & Wittchen, 2008, p. 49). Other behavioural patterns that have been observed are “free riding”, when individuals reduce efforts once their contribution is perceived dispensable or “sucker effects”, when individuals reduce efforts to avoid exploitation from other members (Hertel & Wittchen, 2008, p. 49). Despite all these potential negative effects on work motivation, is still possible to extract “motivation gains” from working in teams. These range from compensation of poor performance of other team members to an increase in efforts when realising that their contribution is indispensable (Hertel & Wittchen, 2008, p. 50). However, whether the effects are positive or negative depends a lot on the way the group is managed (Hertel & Wittchen, 2008, p. 49).

Although the fundamental needs of power, love and sex are motivators that may explain the behaviour of individuals at work (Pinder, 2008, p. 170), when considered in the context of social sustainability do not play crucial role. Therefore, while it is important to acknowledge the existence of these motivators, and other emotions, their relevance to the present research is minimal.
3. Method Chapter

3.1 Introduction

In the present study, the researchers applied themselves to the advancement of knowledge in the areas of motivation and sustainability. Although both fields of study naïve curiosity have been discussed at length individually, direct connections between the two are somewhat lacking. The goal was to find answers to some naïve curiosity, i.e. curiosity lacking assumptions (Matthews & Ross, 2010, p. 231), that developed from immersion in the subject of the present case study. The contact with Wagner Solar was established through the professional network of one of the researchers who had been made aware of the company’s unique ownership structures. The access to this company facilitated data collection and, therefore, the research process.

The researchers were not tempted by the appeal of pragmatism; that is, considering the research question as most significant and decisive for the research process (Saunders et al., 2009, p. 109), thereby eliminating the need for discussion on the researchers’ worldviews. On the contrary, the researchers were acutely aware of the assumptions underpinning the current research strategy.

Firstly, the aspect of **ontology** that was considered was **subjectivism** as opposed to objectivism, as the view used in this thesis is that social occurrences are generated “from the perceptions and consequent actions of social actors” (Saunders et al, 2009, p. 111). As Morgan (2006) discusses in his seminal work “Images of Organizations”, a business organisation can be considered an environment, and, therefore, is made up of other organisms (Morgan, 2006, p. 62-63). Moreover, organisations are political systems (Morgan, 2006, p. 149). Using these metaphors, Morgan implies that organisations have the characteristics of social entities, which themselves are small representations of particular societies. Any given company interacts with other entities, either other private or public institutions, or individuals, such as consumers and clients. An open system interacts with the environment, as seen in nature where environments interact with each other. Then again, organisations are formed by people and, therefore, act how the people (managers especially) that form them want them to act (Morgan, 2006, p. 145). Employees interact with each other as well as the external world and in doing so, they engage in a process of co-creation, changing the world around them as well as themselves. Like journalists, social researchers must write about social life, based on valid facts (Ragin & Amoroso, 2011, p. 21). Business research is part of the social sciences, and therefore shares with journalism and social research the need for representing the social life in a way that is true and valid. Therefore, although objectivism considers that is possible to study the organisation’s real processes from an external position, subjectivists and constructionists consider that an organisation can only be studied from the point of view of its individuals. This includes the activities they partake in, given that organisations are a socially constructed product made by individuals (Bryman & Bell, 2011, p. 24).

For the purpose of the current thesis, the first question that arose was whether a business is capable of tending to the three pillars of sustainability. One of the assumptions was that the conceptual vagueness of the term sustainability has rendered the concept difficult to grasp properly and put into practice in a holistic manner. If this is the case,
can a business – normally an entity predominantly interested in day-to-day work – be at all able to get to grips with the “proper” concept of sustainability? The second question that follows, given that the answer to the first is yes, is it possible to communicate this concept to the employees in such a way that it will have a considerable influence on their behaviour, consequently turning into a motivational factor? As currently understood, in order to achieve this, sustainability had to become the culture of the company, thereby becoming deeply embedded rather than superficially “practised”.

Regarding epistemology, the main field of study to take into account was employee motivation, that is, an aspect of (a) social actor/s. Therefore, it was clear to the researchers that the most appropriate approach was interpretivism; the other options, positivism, realism and pragmatism (Saunders et al, 2009, p. 108), were not in line with either the ontological considerations or the research topic. By assuming interpretivism, the researchers had to understand the differences of the employees as individuals and as part of the organisation, and associated implications. For instance, while conducting interviews, special attention was devoted to gathering information about how the participant valued work as part as his or her life as well as the interaction of work life and non-work life in terms of motivation. While the focus of the current research is to analyse a very specific and determinant aspect of their lives, it was nonetheless interesting to establish an “overview” of the person that was taking part in the process so as to understand the implications of his/her different experiences, values, aspirations, etc. A consequence of assuming the interpretation of the social context was the possible subjectivism derived from the main data collection formats – interview and focus group – since the researcher was present and active. With her presence, the research was on one hand influencing the data collection technique itself, on the other, was influencing the participants, creating a disruptive situation if objectivism was considered instead of subjectivism. As Matthews and Ross (2010, p. 28) say, the interpretivism approach not only means “to uncover subjective meanings” and the “interpretation of meaning in a specific context” but is the “empathetic understanding, ‘standing in the other’s shoes'”.

Concerning the research strategy, social research has a very defined nature, and so does business research as part of the social sciences (Matthews & Ross, 2010, p. 9). The main feature of this type of research is that it has a definite goal, and in order to fulfil that goal it has to be structured (Matthews & Ross, 2010, p. 9). In order to resist criticism from the research community the research has to be “robust and defensible” (Matthews & Ross, 2010, p. 9). Hence, it has to be conducted in a systematic way, and exactlying and rigorously carried out in all its steps (Matthews & Ross, 2010, p. 9). Research is always more than a mere gathering of facts and data without practical purpose (Matthews & Ross, 2010, p. 9), especially in business research.

The research strategy that was developed for the present study follows an inductive approach with the aim to create theory, specifically a “theory of the middle range” (Merton, 1967 cited in Bryman and Bell, 2001, p. 8). Pinder (2008, p. 27-28) corroborates that the development of theories in the motivation research field is done following this very approach: the observation of a problem or phenomenon – in this case, employees being motivated and committed to a particular company – originates in the “behaviorial scientists”’ need of gathering observations to formulate theory (Pinder, 2008, p. 28). The research process started with the observation of the problem and the literature review, in which the most relevant aspects of the two fields of study, sustainability and motivation, were discussed. The results of the study, data analysis are
all contained in the subsequent chapters. With these in mind, the data collection took place. Once the data collection was complete, the data was analysed and from it some conclusions were drawn. This process was considered the most appropriate given the area of research, but also the flexibility that the inductive process permits as opposed to the deductive approach (e.g. to modify the question guide from the first interview to the following ones, since it was considered more appropriate given the differences between the interviewees).

This chapter explains the research strategy in detail, also covering other aspects such as limitations of the design and ethics issues. Special attention is given to the data collection methods, and some issues that arose while developing the planned research strategy.

3.2 Research strategy

The proposed research strategy includes a literature review whose main objective is to summarise the main issues discussed in the thesis (Hair et. al, 2007, p. 102). The critical review included a variety of sources such as books, journals, conference papers and other theses. During the process of developing the literature review the context of the research became more clear, and other areas that previously were not taken into consideration were included. This chapter includes the key concepts and theories (Eriksson & Kovalainen, p. 47) and the most significant areas of discussion from the most relevant authorities on both fields of study (Hair et. al, 2007, p. 98). In doing so, the need for the present research question is made evident. The literature search included all the relevant databases such as EBCHOST, ScienceDirect, Web of Knowledge, etc. with access to hundreds of journals, among them the most relevant in the fields of study. Also, the access to books was provided by the Library of Umeå University and the network of Swedish libraries that this library has access to and which includes a considerable amount of digital references. A variety of concepts were discussed in an attempt to cover all relevant aspects of both fields.

3.3 Single case study

The qualitative research method that was selected in order to address the research question is a single case study research. Authors agree that the case study is a common way to do qualitative research (Stake, 2008, p. 119; Eriksoon, & Kovalainen, 2008, p. 115). It is not new or in essence qualitative (Stake, 2008, p. 119), and has been a popular choice for business research given its capacity to reduce “complex and difficult hard-to-grasp business issues in an accessible, vivid, personal, and down-to-earth format” (Eriksson & Kovalainen, 2008, p. 116). The issue is not what methodology to choose but rather what to study. This will determine the methods used (Stake, 2008, p. 119). The case study is used to achieve in-depth study of a situation, and qualitative methods of inquiry will reveal key features and their relationships (Ragin & Amoroso, 2011, p. 134), suitable for an exploratory case such as this research. This thesis studies a singular case study that aims to shed light on if and how the three pillars of sustainability motivate the employees of a particular company to which access was granted. This company operates in the German solar sector and has very specific characteristics that are deserving of in-depth study. Single case study does not equate
simplicity; quite the opposite, it can result in complexity (Stake, 2008, p. 120). This is what happened in this particular case, due to the complexity of both fields of study and the even greater complexity stemming from their interactions. Moreover, the present research seeks to study the particular more than the ordinary (Stake, 2008, p. 125), even though this may present limitations from a reliability point of view. If the pillars of sustainability were considered individually, the case could be presented in different mini cases within the main case (Stake, 2008, p. 130). However, this approach is hardly feasible considering the strong interrelatedness between the pillars.

On a different note, the reasons that led to the selection of the company were numerous. Not only does it present a unique opportunity to study all three pillars of sustainability in unison, its management and regular employees were also eager to cooperate.

### 3.4 Time horizon

Although independent from the research strategy chosen, the time horizon was also considered (Saunders et al, 2009, p. 155). Given the time constraints and the type of singular case study, it was decided to follow a cross-sectional approach, even though this is not typically used in qualitative inquiry (Saunders et al, 2009, p. 155; Bryman & Bell, 2011, p. 57). Commonly, in a cross-sectional study the collection of data occurs at one point in time (Saunders et al, 2009, p. 155; Bryman & Bell, 2011, p. 53); however, in the present study data collection took place over the course of several months, a characteristic of longitudinal studies. Saunders et al. (2009, p. 155) indicate that even if the collection over a short period of time does not make a research a longitudinal study; sometimes, cross-sectional studies take place over a short period of time, even months, in order facilitate data collection and to better obtain a snapshot of the situation object of the study. This is the case of the present research; interviewees needed to be scheduled at the convenience of the participants, and some of the internal information was not available at the start of the research process.

### 3.5 Data collection techniques

The main data collection techniques were interviews – face-to-face as well as telephone – and a focus group. Although originally the researchers had also designed a survey to be answered by a sample made up of the interviewees and other employees at Wagner Solar, in the end they had to respect the company’s wishes to not go through with it. However, in addition to the interviews and focus group access to secondary data sources was provided, including a survey conducted by management that included information regarding the satisfaction and motivation of the company’s employees.
3.5.1 Data

The main data collected was in the form of verbal communication. This kind of communication has some special characteristics that were taken into account. Spoken language is a form of communication that is more natural and less prepared than written communication, and it is unlikely that it will be shaped and corrected in the way that written communication commonly is (Matthews & Ross, 2010, p. 43). On the other hand, spoken language was chosen also due to the format of data collection – focus groups – that, unlike the written word, permits the inclusion of more than one person, and also permits the physical presence of additional persons to be recipient of the words (Matthews & Ross, 2010, p. 44), in this case one of the researchers as well as the other participants. In addition, the spoken word allows for the observation some non-verbal communication (particularly in the case of the focus group and some of the semi-structured interviews), which influenced the responses of the people participating. Owing to the interactive dynamics of the focus group, the participants shared and exchanged their views and discovered common ground, which was interesting to both the researcher and themselves. Various hand gestures were used to emphasise important points, and nodding was frequently observed when one participant said something that another agreed with. Although telephone conversations eliminate the visual part of these non-verbal communications, it is still possible to distinguish pauses and silences, changes in the “tone of the voice” (Matthews & Ross, 2010, p. 44) as well as the speed of the conversation. This was considered preferable to the possibility of eliciting responses that already anticipated future questions, as is the case with the written word (Matthews & Ross, 2010, p. 44). The resulting answers were, thus, more spontaneous and more authentic than they would have been had the interviewees been given a written question catalogue. Another advantage of telephone interviews is the possibility of asking sensitive questions, whilst granting the interviewees a certain “sense of anonymity” (Bryman & Bell, 2011, p. 489). Overall, the researchers were aware that there were differences between those data collection techniques that required the researcher’s physical presence and those that were made via telephone call; the main difference was the lack of non-verbal communication (Bryman & Bell, 2011, p. 489).
mainly body language, in telephone conversations. This can affect both the respondent’s answers and the researcher’s participation in the interview, e.g. body language can indicate uneasiness or confusion about certain questions. The researchers were also aware that telephone conversations are not recommended for long interviews (Bryman & Bell, 2011, p. 489) since with this data collection method it is easier for the interviewee to terminate the conversation compared to one-on-one conversations. In addition to regular data collection, a mixed form between written and verbal communication was employed in order to arrange interviews etc., that is, electronic messaging and emails (Matthews & Ross, 2010, p. 44).

One particular characteristic of the data gathered thought the semi-structured interviews and focus group was that they were conducted in German. Hence, all the transcripts had to be translated from German into English, and was done only by the same researcher responsible for conducting the interviews and focus groups. This had significant impacts on the research process. As Xian (2008, p. 233) indicates, the process of translation is a process that serves to construct the social reality of a culture in a different language. Therefore, translators, as researchers, are actively participating in the construction, or the interpretation, of data, even if they try to do it in the most objective way. The researchers were aware of this, and the linguistic, sociocultural and methodological problems that Xian (2008, p. 234) identified. There is no simple solution to the linguistic problem, since the participants used some expressions that do not have exact English equivalents, or are difficult to translate into English. The sociocultural problem, on the other hand, was largely avoided thanks to the education and experience of the researcher in translating documents from German into English and vice versa. The methodological problem (Xian, 2008, p. 236), which constitutes the translator’s influence on the translation in imposing his/her authority on the foreign culture (Bryman & Bell, 2011, p. 488), was addressed by using a sense-making approach. In this, the researcher’s experience and background were deployed, in particular the point of view of a foreigner looking into the German culture. The researcher herself is German, but having spent several years abroad in different countries she was able to approach the translation from several different perspectives. In general, all effort was made to ensure that the translation and transcripts were as true to the original as possible using her background and experience in concordance with the subjectivism and interpretivism philosophies upon which this research is based.

For the purpose of the present thesis, the purpose of the research design was to gather data through a combination of mixed tools: first, through semi-structured interviews and focus group interviews, where a researcher had to be present and actively take part in the process of gathering the data; and in a second phase, by a using a structured tool, that is, a questionnaire, with merely the final question being open (unstructured) (Matthews & Ross, 2010, p. 183-185). It was decided to be present in the process of gathering the data (interviews and focus groups) in order to assure that the respondents have all the needed information to produce the required data, and to be in greater control of the whole process. Researcher involvement in the process took place in the form of explaining the purpose of the interviews, clarifying any questions on the participant side, following up on interesting developments in the discussion, etc. This might have had an influence on the respondents’ participation, willingness to answer, or even on the truth content of the answers (Matthews & Ross, 2010, p. 184). However, the researcher tried to avoid these situations wherever possible in order to avoid the introduction of bias.
The questionnaire was intended to enhance reliability. However, the original data collection plan had to be modified to exclude the survey, since at that point in time management did not deem it feasible to have it administered. The main reason given was the adverse situation in the solar energy sector at the end of 2011, and associated forced lay-offs. It was, thus, not considered appropriate to undertake a questionnaire that inquired about employee motivation. The survey, which was designed to be administered via the Internet, was intended to validate the original data, thereby transforming the present research into a longitudinal study of sorts. Furthermore, the questionnaire was meant to be administered to additional employees, so as to gather more information and attain a more holistic picture of the workforce.

In qualitative research the investigator serves as a kind of “instrument” in the collection of data (Cassel, 1977, p. 414 cited in McCracken, 1988, p. 18). He/she needs to employ a broad set of skills, such as imagination, experience, etc. The ability to do so is partially affected by his/her cognitive condition, which in turn affects the researcher’s ability to conduct the interview (McCracken, 1988, p. 18-19). In qualitative inquiry, the “self as instrument” aspect may appear difficult to achieve, but is in fact a skill that everybody can master (McCracken, 1988, p.19). In this respect, the interviewer’s previous experience in conducting one-on-one interviews as well as focus groups and radio interviews was highly beneficial. For purposes of designing the survey, the following skills were needed: the ability to phrase the questions in an appropriate and scientific manner, and skills in researching, comparing and selecting different internet platforms for its distribution and easier management/handling (Matthews & Ross, 2010, p. 183). The required resources included computer and Internet access throughout all stages of the research, and a recording device for the interviews.

### 3.5.2 Semi-structured interviews

Following Bryman and Bell (2011, p. 111), for the five semi-structured interviews the researcher prepared a set of questions as guide on relatively specific topics that were to be covered. The guide that was used for the first interview was subsequently modified. In this data collection method, the interviewee is very flexible in how he or she wishes to reply. The interviewer, too, may wish to alter his or her proposed path and explore an area of interest that has been unexpectedly brought up by the interviewee. A qualitative research method like the semi-structured interview is appropriate for the proposed research project given the subjective nature of motivation. The interest centres not only on the interviewees’ experiences, but also the way they are recounted (Matthews & Ross, 2010, p. 221-222).

The first interview (as well as the focus group) took place in the company headquarters, while the remaining interviews were undertaken via Skype phone conversation. All interviews were scheduled to fit participants’ requirements, in order to guarantee that they were provided with sufficient time to generate appropriate data. The interviews that were conducted at the headquarters allowed the interviewees to talk freely from the comfortable surroundings of their offices, as suggested by Matthews & Ross (2010, p. 196). In addition, neutral probes were employed to ensure an increased rate of response and facilitate discussion on all topics, including the “difficult” ones. The researcher approached the interviews with “naïve curiosity”, without assumptions and facilitating the interviewees’ answers instead of imposing her/his answers (Matthews & Ross, 2010,
p. 231). Although some of the conversations were interrupted, the researcher was able to resume the interview without any problems (Matthews & Ross, 2010, p. 231).

3.5.3 Focus group

The focus group interview was conducted face-to-face in the company’s headquarters with three employees of the organisation. The employees had all worked somewhere else before joining the company. Therefore, comparisons with regard to motivation between their current and past workplaces were possible. Moreover, employees were able to exchange views, thereby encouraging reflection and information synthesis. Compared to other quantitative or qualitative methods, the focus group is relatively easy to conduct (Morgan, David, 1988, p. 20). With little input from the researcher it produced a lot of data; however, at the same time, the researcher had less control over the process (Morgan, David, 1988, p. 21). Regarding validity, the unique and artificial configuration of the focus group implies that the data thus collected would not have been generated otherwise, as it might not reflect the natural behaviour of the group (Morgan, David, 1988, p. 21). Nonetheless, the process was empowering to participants as it allowed them to collaborate closely with the researcher (Eriksson & Kovalainen, 2008, p. 177), thereby increasing their eagerness to partake. Potential drawbacks include a risk of not eliciting spontaneous answers, or even intimidating some participants (Eriksson & Kovalainen, 2008, p. 177), although this did not happen to the best knowledge of the researchers.

3.5.4 Other

In order to complement both the semi-structured interviews and the focus group, follow-up contact was made with selected participants via email and telephone. This had the purpose of corroborating and clarifying some points and issues that came up throughout the research process.

3.5.5 Secondary data

Two different types of secondary data were used in the research: information about the sector (generated externally) and the results from a survey conducted by the company (generated internally). The former came in the form of two written reports, intended to provide a comprehensive overview of the sector (Hair et al., 2007, p. 119). The latter was a PDF document of a presentation delivered by management to the company shareholders. The sectorial information was gathered from institutional sources, while the other was provided by the company. All secondary data sources were considered trustworthy due to their robust research design and data collection methods.

3.6 Analysis and conclusions

All the data gathered by the interviews was subsequently organised and the content transcribed and translated from German into English, which resulted in the empirical chapter. Once this was done, it was easier to identify the most important information (“data reduction”) and organise it in a table in order to better handle the qualitative data and facilitate its analysis (“data display”) (Hair et al., 2007, p. 292). This table can be
found in Appendix 6. The purpose of the analysis is to highlight the main findings resulting from the research strategy, while the conclusions identify the most important themes that help to answer the research question (Hair et al., 2007, p. 294). For purposes of analysis and drawing conclusions, clarity, coherence and transparency were the main factors that were taken into account, in order to clarify the fit between theory and observation. This, together with the deployment of suitable data collection methods and the resulting influence of the thesis on the research fields of sustainability and motivation, was intended to validate the thesis as a “good” qualitative research (Yardley, 2000, p. 219).

3.7 Ethics

A strict commitment to ethical conduct was ensured throughout the research process. Special attention was devoted to requesting permission from the interviewees at all stages of data collection, such as recording and the use of the data thus generated for purpose of the present thesis. The codification of the information protects the interviewees' personal details. No harm to any participant, lack of informed consent, invasion of privacy or deception occurred at any point, and strict protocols were, are and will be followed regarding data management. This control over ethical issues is crucial to fulfilling Yardley’s sensitivity to context criteria (2000, p. 219).

3.8 Reliability, replication and validity

Although the fact that it is difficult to replicate is inherent to the nature of the case study, it is not contradictory to its validity. The validity of the research strategy and data collection methods relies on the efforts made by the researchers to pursue suitable data and ensure that it is not biased in any way. According to Yardley’s criteria for good research (2000, p. 219), the research was rigorous and committed, since the extensive engagement with the theme was supported by methodological competences as well as the use of the necessary skills during data collection. However, it is true that motivation, by nature, is a highly subjective and qualitative research area. Therefore, the analysis of the results will ultimately be subjective too, as it has to be context-sensitive according to Yardley’s criteria (2000, p. 2019). In addition, the truth content of employees’ accounts can be questioned to some extent. First and foremost, the researchers did not have access to what can be considered the raw data (thoughts), only the words expressed by the respondents. Secondly, even if done unintentionally, some interviewees might have felt obliged to present their company in a favourable light, or, given that they are content with their current jobs, might have judged their previous work experience excessively harshly in retrospect.

Following the definitions given by LeCompte and Goetz (1982, cited in Bryman and Bell, 2011, p. 395) “external reliability” which explains the degree “to which a study can be replicated” (Bryman and Bell, 2011, p. 395) is difficult, if not impossible, to meet. This problem is exacerbated by the nature of qualitative research, in particular single case study research. However, it is possible to duplicate the researchers’ role to some extent, since the data collection techniques were semi-structured. Due to the language barrier, the “internal reliability” (LeCompte and Goetz, 1982, cited in Bryman and Bell, 2011, p. 395) was not properly addressed, since it was not possible to have
both researchers in the data collection process. However, this does not mean that the “internal validity” is necessarily compromised, as long as the thesis presents solid theories that match the observations, (LeCompte and Goetz, 1982, cited in Bryman and Bell, 2011, p. 395). Preceding data analysis, a thorough literature review had been conducted, which in turn ensured proper handling of the inductive method. The “prolonged contact” over several months with the company also helped in this respect because it generated ample opportunity to clarify any ideas, questions and concepts the data collection process may have brought up. The “external validity”, referring to generalisation of the findings, (LeCompte and Goetz, 1982, cited in Bryman and Bell, 2011, p. 395) presents another inherent challenge to the current research, given the small sample of the data collected as well as the unique source, relatively small company in a very specific industrial sector in a national market. However, it was considered appropriate and in accordance with the requirements of Umeå University, established by the Thesis Writing in Business Administration manual (version from 29-08-2011) and as well as by the Umea Ethics Guide “Academic Ethics Guide for Master’s Program Students”, and also given that the purpose of the present research is not to produce generalizable findings. Rather, it is intended to be an initial and novel exploratory study.

However, when taking into account Lincoln and Guba (1985) and Guba and Lincoln (1994, both cited in Bryman and Bell, 2011, p. 395), other criteria should also be considered: credibility, transferability, dependability, confirmability and authenticity. The criterion “credibility” refers to trustworthiness, and how to ensure it. The main technique whose deployment had been originally intended to verify the respondent validation (when the researcher gives feedback on the findings to the individuals that have taken part in the research, Bryman and Bell, 2011, p. 396), was the intra-company survey. During the interviews, the researcher provided some feedback to the participants in order to corroborate and clarify points. However, it was not the intention to regurgitate a complete account of the findings to participants, in part due to time constrains and also to avoid reactions on the participants’ behalf that might have altered the results, such as defensive or veto reactions (Bryman and Bell, 2011, p. 396-397). A triangulation approach of sorts was attempted, complementing the interviews with the survey and the secondary data. The triangulation technique – using more than one method or source of data (Bryman and Bell, 2011, p. 397) – is intended to validate the results (Saunders et al, 2009, p. 154) by cross-checking the data, and permits the combination of both types of research strategies, quantitative and qualitative (Bryman and Bell, 2011, p. 397). “Transferability, which is akin to external validity (Bryman and Bell, 2011, p. 395), has been ensured to the best of the researchers’ ability by giving as many details as possible. However, the qualitative nature of the inquiry and the particularity of the case study make the transfer of results rather difficult (Bryman and Bell, 2011, p. 398). To ensure “dependability”, or the “auditing approach” (Bryman and Bell, 2011, p. 398), records were kept throughout the research process. This included written minutes of the meetings that took place between the researchers and their supervisor; recordings of all the interviews; transcripts; emails, and other communications and documents that were exchanged between the company and the researchers, amongst the researchers, and between the researchers and their supervisor. To ensure objectivity, that is, “confirmability” (Bryman and Bell, 2011, p. 398), all the steps and theories within the research process were thoroughly discussed by the researchers, who made their best attempts to eliminate subjective bias in their accounts. The final criterion, “authenticity” (Bryman and Bell, 2011, p. 398), was addressed from
multiple perspectives: fairness – whether the research represents the different viewpoints on the company – was tackled by including individuals from different departments, of different ages, and from different educational backgrounds, but it was nonetheless limited by access and participation of employees; the ontological authenticity – whether the research provides a better understanding of the social situation –, and educative authenticity – whether the research helps to understand the social setting – were addressed in the conclusions drawn from the present study. Given the time frame and scope of the present study, it is not entirely sure if there has been or will be any consequences from the research, and, therefore, it cannot be said with absolute certainty that the thesis complies with catalytic authenticity – whether the research influences participants to take action (Bryman and Bell, 2011, p. 399) – or with tactical authenticity – whether the research has empowered the participants to take action (Bryman and Bell, 2011, p. 399).
4. Empirical chapter

4.1 Research context

The company that will be explored for the purposes of this research is Wagner & Co Solartechnik (engl. Solar Technology) based in Marburg, Germany. Founded in 1979 they offer solutions for solar heating applications with complementary pellet heaters and solar power systems for private and industrial use. The company is highly future-oriented – the aim is to think and act sustainably in all aspects of business. This applies to products as well as corporate buildings and the company as a whole. As well as designing and offering products that are engineered to fulfill sustainable development needs, ecological practice and sustainability are part of corporate philosophy. The first passive solar building was constructed for office use in 1998, and recycled paper has been used consistently for years. On their website the company describes itself as mature with a focus on economic sustainability rather than short-term maximisation of shareholder value. Apart from ecological and economical sustainability social sustainability is generated through staff-owned ownership structures which help ensure staff commitment and participation, as well as democracy-based decision-making. Six of the nine founding members are still part of the company, and managers are elected by their subordinates on a bi-annual basis.

Wagner & Co Solartechnik was selected as the basis for research for two main reasons. For one thing, it was a pioneer in the renewable energy market in Germany, remaining at the forefront of innovation to the present day. Having been founded based on a sustainable ideology it aims to fulfil a purpose that goes beyond profit maximisation. Corporate culture in its entirety is geared towards sustainable development, following a 'practice what you preach' approach. Secondly, governance structures are democratic and decision-making highly decentralised. The company is owned 100% by its employees – a business model that gained popularity in the 1980s and became newly relevant in the wake of the recession, but has not been widely adopted so far (Hansmann, 1990; Mowday & Shapiro, 2004; Wheeler, 2008). Wagner & Co Solartechnik are a pioneer company in both aforementioned regards. Therefore, the proposed study is designed to generate insight not only into the complex mechanisms of human motivation but also into the future of effective management and CSR practice. In addition, comparisons can be made between two different European branches of the same company, generating insight into the similarities and differences within European management.

4.2 Interviews & focus group (in chronological order)

On August 25, 2011, two interview sessions were conducted at the company's headquarters in Cölbe, Germany. One of these sessions was a one-on-one interview with one of the current CEOs, Interviewee Nº1. The other was a focus group session with three regular employees, Interviewees Nº2a, Nº2b, and Nº2c. Further interviews were conducted via Skype with three additional employees (Interviewees Nº3, Nº4, and Nº5) in the following months. The one-on-one interviews were all between 15 and 30
minutes in duration, whereas the focus group interview was significantly longer (40 minutes).

Table 2: Interviewees' overview

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<tr>
<th>Interview Nº1</th>
<th>Date</th>
<th>Type</th>
<th>Duration</th>
<th>Department/Function</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
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<th>Years in company</th>
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<th>Gender</th>
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4.2.1 Interviewee Nº1 (25.08.2011)

Interviewee Nº1 was first asked to introduce herself and talk about her background. She has a degree in environmental engineering which she obtained in Berlin, and then began working immediately for her current employer. She has now been working for the company since 1993, having worked her way up through different departments. Starting out in the rainwater department, she moved on to chairing the claims and quality management department, has also worked in environmental management, and then obtained her current management role 3-4 years ago. Within the company, she is currently responsible specifically for Human Resources and organisation. She says she
has wanted to work in the solar energy sector since completing a placement in the area before her studies, which she greatly enjoyed. About the company in particular she says she was particularly intrigued by the governance structures. She comes across as determined, efficient and confident and gets straight to the point, not wasting much time with small talk, pleasantries, or even expletives. Nonetheless, she is as good a listener as she is a talker and keeps eye contact throughout the interview. Her enthusiasm and dedication to the cause are evident in every sentence.

Concerning the company, Interviewee Nº1 considers the following two features uniqueness drivers: firstly, the fact that the company, having been founded in 1979, is a pioneer in the German solar energy sector and has been working towards the energy turnaround ever since then. Secondly, the fact that the company is a “Mitarbeiterunternehmen” [employee-owned company], as she calls it, with 120 shareholders, and possessing a democratic governance structure which has been in place since the early days. As a direct result of this structure, the organisational culture is based on participation. Decisions are routinely made in teams, and there is a common democratic understanding which also encourages criticism, meaning that employees would object to non-democratic decision-making. Management is elected during shareholder meetings, which act as a board of directors of sorts. There is a strong sense of ownership within the company: “The company is ours, we are independent of investors, and make our own decisions.” This belief in common ownership is actually explicitly stated in a collection of company principles that are on display in her office (as well as on the company website). Currently, six out of the eight founding members of the company are still a part of it. However, they’re all over sixty now and most of them will be leaving the company in a few years time.

In terms of employee motivation, Interviewee Nº1 sees a strong sense of identification with the company and its goals on the employee side. This, in her view, leads to intrinsic motivation, the activation of which is prioritised over extrinsic motivation in the form of financial incentives (the latter of which are not used very much). She states that where highly qualified employees are concerned, the company actually pays less than the market average, and yet employees are still very motivated to contribute to the welfare of the company. Employees are encouraged to be proactive, which Interviewee Nº1 considers to be the main motivational factor overall. In terms of other incentives, amongst others, the company has flexible working times – a system that operates on the basis of trust, since employees keep track of their own working times. Whether and/or when employees have to be physically present on the company premises can be negotiated with their respective departments (always, of course, prioritising client demands). Interviewee Nº1 stresses that the company is very child-friendly and family-oriented. Many employees work part-time in order to partake in child-rearing, and the company is supportive of that. When recruiting new employees, autonomy and a sense of responsibility are key characteristics for Interviewee Nº1 New employees need to be proactive and possess a certain intrinsic interest in his or her field of work, in order to keep improving themselves, their work, and ultimately the company.

When asked about her own sources of motivation, she cites again the two characteristic features of the company, which are seemingly synonymous with her own: working towards the energy turnaround, and employee ownership. “I’m working towards the energy turnaround, daily, bit by bit.” It is part of her own vision that nuclear energy and fossil fuels will become redundant in the future, claiming that in theory they already are
but that ultimately it all comes down to money and what it is spent on. “Democracy is very important to me, very close to my own heart. For me personally, it is all about working with people who conduct themselves as ‘mündige Bürger’ [responsible/mature citizens].” Outside of work, too, Interviewee Nº1 is involved in environmental initiatives. There is an anti-nuclear energy initiative in Marburg that receives active support from herself as well as other employees. Furthermore, an employee initiative called “Energy for Africa” has recently been founded. Its goal is to support Africa with regard to solar energy as well as humanitarian issues. Clearly, employee support for the cause goes beyond the primary work context. Interviewee Nº1 goes on to state that she has three children and is also active in various initiatives surrounding them, such as their school’s booster club.

The company is a leading business in the German solar heat sector. They were one of the first to manufacture collectors and still do, with great success. In photovoltaics they act as a distributor only, not producing solar modules themselves but practising co-branding with renowned manufacturers. Assumingly, both can leverage each other’s reputation and expertise. As a result, clients consciously buy solar modules from Wagner Solar. The company is active internationally: the first branch outside Germany was opened in Spain, followed by France, Italy, the US, and the UK. Routinely, employees from the German branch go to other branches to help establish them in their respective markets. Interviewee Nº1 considers both the “vision of the energy turnaround” and the democratic structures success factors of the company, as they are closely intertwined with employee motivation. Employee motivation is something you cannot force, she says, it has to come from within. Maintaining motivation has been especially important in the past few years, given the dynamics of the solar energy sector, which is characterised by enormous ups and downs. Changes can take place within weeks at times, which makes it crucially important to act quickly when required.

When it comes to defining success, Interviewee Nº1 explicitly takes all three aspects of sustainability into account: economic sustainability, social sustainability, and environmental sustainability (she mentions them in that order). She finds that most companies prioritise the former aspect over the others, if at all. Many, especially listed companies, do not even do that but think very much in the short term instead. In her company, overall, Interviewee Nº1 believes that all three parts have approximately equal weight. The purpose of the company’s existance is sustainability in the social and environmental sense, while economic sustainability is required to fulfil the aforementioned goals. In other words, social and environmental sustainability are the goals, and economic sustainability is the means of getting there. However, she also acknowledges that employees are bound to have differing individual weightings. Interviewee Nº1 does not really know herself how the company managed to their business model for so long, and attributes at least partial responsibility for the company’s success to chance or luck. The company was founded at a time when employee ownership was “all the rage” and part of the common mindset of the anti-nuclear movement, which the founding fathers were a part of. Therefore, it is obvious why the company was founded the way it was. The structures and the culture have persevered, while other companies that were founded out of the same movement and with the same structures have ceased to be employee owned. Therefore, Interviewee Nº1 thinks that luck does have a part to play in the company’s on-going success. She does think that the business model is transferable but would argue that it is difficult to change a company with already established structures. The best way to establish
employee ownership is to have it in place from the beginning. When it comes to building up corporate culture, she stresses the importance of culture, structure and strategy – culture needs to be supported by structure and if that is not in place, then culture will be lost in the long-term. “Democratic structures are needed in order to uphold a democratic culture.”

Management is elected every two years and there is no limit to how long someone can serve in office. The next election will take place in early 2012. During each election cycle, a board of directors is elected first, consisting of 8 shareholders and 4 employees, that decides how top management should look like. At the moment, there are 7 people in top management, serving different functions. The company has a 5-year plan, and that forecast is updated annually. At the moment, the solar energy sector is experiencing some difficulties because financial support for photovoltaics has been cut back in Germany, Italy, France and Spain in recent years. “We are always talking about fat and meagre years, and I believe we stand at the beginning of some meagre years.” Interviewee Nº1 anticipates a consolidation in the market in the near future and hopes that the company will be among the “victors” of the crisis.

4.2.2 Interviewees Nº2a-c (25.08.2011)

Focus group

The focus group was comprised of three participants – a middle-aged woman, a young woman, and a youngish man – two of whom knew each other beforehand because they work together. The middle-aged woman works in frame manufacturing, the young woman in sales, and the man in optimisation of production. All three are dressed casually; Interviewee Nº2a even wears a nose ring.

Interviewee Nº2a

She has been working for the company since March 2009, currently in the Sales Department, after having previously completed her training as an office administrator. Her former job was with TTM, an organisation that exports medical technology to Third World countries, in the same city as her current employer. She completed her training there and subsequently went on to work for TTM for four years. She changed jobs not because she did not enjoy working for TTM but because she “wanted to see something else”, and also because the company was facing difficulties and her job would have been the first to get cut (in her view). She was not directly threatened in any way, but the thought of getting fired was constantly on her mind. So she quit and went to Australia for a year and a half on a working holiday visa. When she came back to Germany, “with 150 Euros in my pocket”, she had an accident which rendered her unable to work for the next year and a half. Following her recovery she sent a speculative application to Wagner Solar and got a job with them three months later. She comes across as opinionated and a ‘free spirit’.

Interviewee Nº2a believes that her previous employer is in no way comparable to her current one because with 40 employees, it was much smaller and everyone knew each other. She prefers working with more people, and more different people, on a wider range of projects. “I wanted to work for something I could support 100%.” She even got into trouble with the employment agency because of her convictions. They were the
very reason why she applied to Wagner; she felt that she could get behind the company and its vision, the energy turnaround. By contrast, the governance structure was not a primary motivational factor for her. Regarding the governance structure, she says flat hierarchies have good and bad sides. One of the downsides is that “everyone does what s/he wants and not what was originally planned”. She finds it very motivating to work in a company like Wagner Solar, but thinks that the size the company has grown to is counterproductive to its governance structure, because there are too many different people with different opinions around, which leads to chaos. She sees problems with how employees handle agreements in the absence of an authority figure (they refuse to adhere to them all too often).

Compared to her previous company, Wagner is more anonymous – she has regular phone and email contact with colleagues that she only speaks to in person maybe once a year. She prefers to know all her colleagues personally. She also prefers a less formal atmosphere (saying “du” instead of “Sie”) – this is the case at Wagner. However, she also thinks that there is a downside to that, namely the fact that it makes criticism sound more personal. Saying “Sie” generates Some clients even insist on saying “du”, which was something that took some getting used to when she first started out in the company. When she was with her former employer, her boss used to say “du” to the office employees most of whom he had known for years. The employers in the metal workshop, on the other hand, were addressed with “Sie”. When she herself had finished her training and went on to be a full-time employee, her boss was suddenly unsure how to address her properly. He ended up calling her by her first name but still saying “Sie”, which she compares to the way high-school teachers address their senior students. Where clear hierarchies are present, she prefers to address her equal-level colleagues in an informal way, while she would rather say “Sie” to her superiors because it keeps them at a distance. Generally speaking, she prefers consistency in this matter. When a superior and a lower-level colleague address each other with “du”, crucially, it makes her wonder “why do they say du to each other? Does he earn more than me too?” She comments positively on her experience in Australia where those differences do not exist; she likes this best. When she started out at Wagner she was at a meeting and got chatting to the woman next to her whom she did not know at the time. So she asked her, “so who are you and which department do you work for?” As it turned out, the woman was one of the CEOs [Interviewee Nº1], which came as a bit of a shock. Interviewee Nº2c had a similar experience upon first meeting Interviewee Nº1.

**Interviewee Nº2b**

He works in production development, providing a supporting role to manufacturing, mostly in the form of problem solving. He has been working for Wagner since January 2010. Prior to that, he was commuting to Fulda every day for 7 and a half years, for a total of 2 hours a day. He has a small son and felt like he was missing out on seeing him. Therefore, when the opportunity came along to work for Wagner in pretty much exactly the same job, he took it. He makes a point of saying that his job is about improving operational efficiency, or productivity, but not about replacing people with machines. Making jokes throughout the interview session, he comes across as jovial, kind and good-natured, if somewhat mischievous. Having trained as an industrial mechanic and technician for machine tools, he enjoys the hands-on nature of his work, as opposed to sitting at a desk all day. Being closer to home was his main motivation for changing jobs, although he knew about Wagner’s special governance structure from hearsay. He
likes working for the company, but would have taken a job with any other employer in the vicinity. Overall, he says he has always cared about environmental protection but has never been particularly active in the field. “I never took the empty can of cola that I found in my car and happily threw it out the window.” “I was never environmentally active to the extent that I was throwing stones at a nuclear power plant. Not that I would do that now. Well, of course I could, since there clearly exists a link. Or antipathy, whatever.” He feels comfortable working somewhere he can actually change things and make an impact. He even refers directly to his son, who is four years old, saying that he does not want him to reach the age of 40 or 50 and not be able to know what foods he can still safely eat/grow in his own garden. By the same token, he says that he does stand behind the company’s vision but it’s not a must for him, having previously worked for a company that did not share the same values (and having enjoyed the job). To him, there are many positives about the company. He enjoys the work and is able to effect changes on a larger scale.

Considering flat hierarchies/employee ownership, he too sees both positives and negatives. When it comes to decision-making, he likes that the employees are granted a certain degree of autonomy. Instead of seeking approval by their superiors, employees are free to make decisions in smaller groups. On the other hand, he laments that sometimes those decisions are not followed through. There will always be that one dissenter who decides he disagrees. Also, being consistent is a problem – since management is not appointed but elected they are sometimes afraid to take drastic measures where necessary. It can be a problem to hold people responsible for their mistakes. At that point: Interviewee Nº2a cuts in and points out that “a colleague today may be your superior tomorrow.” (Interviewee Nº2a) Under those circumstances, it is difficult to do for some employees to exercise their legitimate power once they become part of management. In general, managers do not flaunt their power. Their main role, as a point of reference for the other employees, is to make sure that decisions are followed through. At that point of the conversation, Interviewee Nº2b points out that they have been focusing on the negatives – a certain “aftertaste”, as he calls it. On the whole, those cases are not too common though. Normally, he considers the system – democratic decision-making in small groups – relatively effective and a time-saver. In his previous job, it was often the case that decision-making took much longer because the system was more hierarchical. His previous employer was roughly the same size as Wagner, but mainly a manufacturer and not as profitable (mostly because Wagner also acts as a distributor). However, he really enjoyed his previous work, stating that he had “super awesome colleagues” there, whereas his boss was an “asshole”. In fact, he addressed his direct superior with “Sie”, whilst actually saying “du” to his boss’s boss whom he got along with much better. At one point his direct boss actually addressed him with “du”, which Interviewee Nº2b did not approve of and consequently refused. His boss addressed some employees with “du” and some with “Sie”, which established a hierarchy of favouritism that Interviewee Nº2b considers unfair. But he considers this normal; he has worked for four companies so far and always had colleagues with whom he got along better than others.

Interviewee Nº2c

Interviewee Nº2c has been working for Wagner since May 2010. Being somewhat older than the other two focus group participants, she has quite the diverse employment history under her belt already and clearly enjoys the opportunity to recount her unique
experiences. Upon finishing high school she trained to be a painter and varnisher and worked in that role for 10 years. She quit because she is no “solitary worker”; however she considers this to be the working standard in the current construction industry, as opposed to earlier times when it was usually two people working together. “So I left because I’m no individual animal… more of a pack animal.” She then worked in her mother’s shoe shop for three years, which allowed her a certain degree of autonomy. After that she went back to school to study pedagogy, but only got as far as her prediploma because of the introduction of tuition fees, which she could not afford. She then went on to work in a delicatessen shop, again with lots of autonomy. She enjoyed the job very much but did not earn enough to live comfortably. Upon quitting she worked for Wagner in a different branch for three months as a stand-in, and then went back to working as a painter for half a year. However, she enjoyed working for Wagner so much that she kept calling them up, and finally succeeded in securing a job with them. She knew she wanted to work for Wagner because of the flat hierarchies. She says that, as a manual worker, she is at the bottom of the hierarchy but, despite that, feels she is taken seriously at Wagner. Where she offers constructive criticism it is taken into account; therefore she feels she is more than just a “heeler”. She likes being able to organise her workstation in the way that she finds most effective, and being able to see her achievements at the end of the working day. At this point Interviewee Nº2a cuts in, saying that everyone at Wagner has personal autonomy, no matter their job or place within the hierarchy. “Everyone carries the company on their shoulders”. If people were not committed, the company would not be economically viable. Interviewee Nº2c thinks there are much fewer people in the company with a devil-may-care attitude. Interviewee Nº2b agrees, saying however that approximately 5% of the workforce will always have that approach, no matter their employer. On the whole, Interviewee Nº2b considers his close colleagues at least (because he knows them best) to possess what he calls “the right attitude”, which is exactly the reason why they work for Wagner. They support the company’s goals and want to make a change. Interviewee Nº2c: “I am quite selfish in that way. To work in a good team is my number one priority.” Working for a good cause, to her, is a nice add-on. They all agree that they like a great deal of autonomy in their work environment. Interviewee Nº2b says that employees at Wagner are expected to put in more than the minimum effort; they are somewhat expected to go the extra mile. However, the extent to which someone is required and willing to do that depends largely on individual job requirements.

Regarding the application process, all participants agreed that it was rather relaxed. Interviewee Nº2b almost felt like he had known the people who interviewed him for twenty years. They greeted him informally, shook his hand, and made him feel comfortable, “as if we were neighbours. But we weren’t of course, we’d never seen each other before.” “When we leave this meeting you will be part of us, a big puzzle, and it’s not like you’re just starting out next week, it’s like you’ve been with us for fifteen years.”

4.2.3 Interviewee Nº3 (7.12.2011)

Interviewee Nº3 is an Italian national with a lot of international experience. He spent his high school years in Rome and other parts of Italy. He also spent two years in Belgium and two years in the USA. His university years (5) were spent at La Sapienza, the biggest university in Rome, where he obtained a Bachelor’s and Master’s degree in
mechanical engineering. “Chance” (“glücklicher Zufall”) was the reason why he ended up at Wagner Solar. In his second or third year at university he had already decided that he wanted to work with renewable energies, which is the reason why he wrote his Bachelors thesis about “distributed generation”, i.e. decentralisation of energy sources. His Master’s thesis was about planning a state-supported solarthermic plant in a prison in Rome, which was intended to be built by inmates (in cooperation with experts). Specifically, he states that he had had the intention of working in the solar energy sector, which is why he wanted to go to Germany. He thinks that, compared to Italy, there is more of an interest and, hence, the field is more developed. “In Italy, I don’t know why, there is a lot of sun but few interest and a lack of development in the field.” Thus, he went to Berlin to learn German and find a job. At the time, he was not aware that Wagner Solar existed. When he found out about them, he sent an application for a placement. Upon finishing his placement, he went on to be a permanent employee. His current role is that of planner for the export department. He mostly coordinates projects relating to solarthermy and photovoltaics abroad, i.e. anywhere Wagner does not have a branch. In his department, there are three technicians – all roughly 30 years old – himself, a French woman and a German man. They are very busy and work is demanding, but he enjoys working with them as they can laugh together and “it’s all quite cosy”. As a result, he finds the workload very much acceptable whereas if the work atmosphere was not so good he would find it much more stressful (“unacceptable”, in fact). In general, he is very soft-spoken and kind, taking time to think carefully before giving his answers. It appears that he shies away from being too frank or opinionated for fear of giving unfair judgment.

Interviewee Nº3 rates environmental aspect of his work as “very important”. He also speaks highly of the employee ownership structures, appreciating the fact that those who own the company put in the effort. As a result, employees are “not just a financial component, but a human component”. This, in his view, is highly unique. He states that in Italy, there are in fact many cooperatives but he never held the view “it’s either this or nothing”. Hence, employee ownership was not a deciding factor to work for Wagner. He makes a clear distinction between employee ownership – the 80 or so internal stakeholders – and the democratic governance structure, which applies to the entire organisation, “from intern to manager”. “You can be a stakeholder or not be a stakeholder, it makes no difference in your daily work.” He specifically appreciates the democratic division of labour, as well as the flat (“horizontal”) hierarchies. As a result, the individual employee has a broad basis for decision-making, and many opportunities to actively shape proceedings. Between the democratic and the environmental aspect he finds it difficult to prioritise, because he thinks they are two very different things. “A company can work with renewable energies and have a different governance structure, and that isn’t necessarily a bad thing.” After two years with the company anyone can ask to be a stakeholder. Any such request has to be officially approved. The employee in question has to go through a trial period before his request to be a permanent stakeholder is put to the vote. He says he would be interested in becoming a stakeholder if he knew he was staying with the company indefinitely, or at the very least 10-15 years. However, he currently does not plan this far ahead as he is used to changing location every once in a while. Seeing and experiencing something new on a regular basis is important to him. In fact, it was just as important in shaping his decision to make the move to Germany as the prospect of working in the solar energy sector. “Maybe in three years I’ll feel the urge to go somewhere else again. Not at the moment, mind you. I feel very comfortable here – with my work, the city, the people, my girlfriend and
everything, but I never know when the urge to move will strike me again.” Money, to him, is not very important. Work climate and “a humanistic interaction with people” rank much higher when it comes to personal priorities. He states that he earns more than he needs, considering the fact that Marburg is a university town which makes it possible to live on less. Hence, he does not strive for a bigger salary at all.

As for the current market situation, he observes a definite effect on the company. Temporary contracts are not being renewed and there are various money-saving measures in place, while in his department there is actually a growth trend. He attributes this to the portfolio effect – the company is present in many markets worldwide, so whenever there are problems in one market at the same time another is likely to look up. It differs not only from market segment to market segment (apparently, photovoltaics is currently undergoing an upward trend), but also from week to week.

Regarding the democratic governance structure, Interviewee Nº3 does not see any specific negatives in his daily work. The one difficulty that comes to his mind is the size of the company, claiming that it becomes more difficult to sustain the bigger the company gets because “communication is not as regulated as in a vertically aligned company.” However, he thinks that the positives far outweigh the negatives, especially with regard to productivity. Here, he sees strong links to work atmosphere – the better it is, the higher the productivity. However, he also stresses that he lacks a general view of the company and does not find his “technical perspective” to be so useful in this regard, especially considering that his department is “like an island”. By contrast, the equivalent department that tends solely to Germany is comprised of nearly twenty people. In comparison, between him and his two colleagues, he finds it much easier to make decisions. If it is not an enormous undertaking, they have sufficient free reign to just go ahead with a project if they think it will generate benefits. He finds this personal autonomy not only very effective, in his department at least, but also important to him personally.

4.2.4 Interviewee Nº4 (14.12.2011)

Interviewee Nº4 works in the same department as Interviewee Nº3. He works as a project engineer and cites his main task as “product adaptation for markets abroad”. Having studied energy and environment engineering at Hamburg University of Technology, he spent some time researching absorption refrigerators in Spain before joining the company. He speaks very fast, is extremely opinionated and does not waste time with formalities. Out of all the interviewees, he is most “to the point”. Like the other interviewees, he immediately offers to say “du” to the interviewer. He is clearly very busy and seems a little rushed; halfway through the interview he is interrupted by a colleague with an urgent request. However, he puts it on hold in order to finish the interview.

He has been with the company for nearly two years. It had been his clear intention to work in the solar energy sector and contribute to the energy turnaround, which is the main reason why he applied to Wagner Solar. He had had a vague idea of the decision-making structures in the company before he applied; he also found this intriguing. “I found it exciting and interesting, so I applied, and turns out the rest was a match as well.” Wagner Solar is his first employer. He became aware of the company through a
colleague of his father’s who also works there. When asked what he considers the company’s main distinguishing features, he considers Wagner Solar one of the most capable and technologically experienced/advanced solar companies worldwide, and certainly in Germany. It is apparent that he is passionate about the technical and innovation-related aspects of his work. However, whilst paints Wagner’s success in a positive light he also clearly states that he opposes a pure profit orientation, especially where it overrides purpose and meaning. The reasons for this are partially to do with politics, although he does not elaborate his point. The sole reason why he can get behind Wagner’s “extreme profit orientation” is the company’s overriding business purpose. Before joining the company, he says he did not imagine ever working for German industry. The environmental aspect is a clear priority to him, and so is contributing to society’s greater good. Although he does not yet have any children, he definitely wants to have a family in the future. Therefore, and in the general sense, preserving environment for future generations important to him. He says he cannot imagine working in any other industry because the extent to which the company’s value system matches his own (“60%”) is as close as it gets within the free enterprise sector. The only other sector he can envision himself working for is the aid sector.

In his daily work, money carries little weight: “it does play a role, but a subordinate one”. What is most important to him is “the task, something that’s fun and inspires me”. By task he means his own responsibilities. He values being “challenged and supported”. Another motivating factor is the decision-making structure. Whilst managers are of course routinely informed about inner-departmental decisions, those who make them are those with the most expertise, not highest up the hierarchy. He is very adamant about autonomy in decision-making and fond of quick decisions. Nonetheless, he makes the point that the two are sometimes in conflict. The democratic decision-making structures in the company come with upsides and downsides. In general, he speaks fondly of them but does stress that they can lead to “inertia”, meaning that the process is lengthy. Here, he sees a clear correlation with the amount of people involved in the process – the more people have a part in the decision, the longer it takes to reach consensus. The bigger the decision, the more amplified the problem. He imagines that more hierarchical companies may be more effective in terms of speed because responsibilities are allocated more clearly. On a more positive note, he comments favourably on the fact that democratic decision-making involves no external investors. As a result, decisions tend to be more future-oriented because they are made by experts on the matter.

With regards to employee ownership, he thinks it is “a good thing” but does not place it high on his list of priorities. Having not yet quite fulfilled the minimum requirements in terms of employment time, he himself is not a shareholder and does not express explicit interest in becoming one. The reason he gives is that he is unsure know how much longer he wants to stay in the industry. Work atmosphere in his department is good – “very relaxed, very good company, very free in terms of configuration”. He enjoys working with his team of colleagues. Aside from having a great degree of autonomy, getting along with his immediate colleagues is a main priority of his. Overall, he rates his job satisfaction as high. Nonetheless, he is currently seeking out a different position inside the company (but does not state which). He characterises the dynamics of solar energy market as “extremely dependent on political decisions, therefore very fluctuating” and acknowledges that times are currently tough, especially in Germany. He highlights the role of the media in “spreading nonsense”, thereby blowing trends out of proportion and upsetting customers. While stating that the company is clearly affected in the form
of austerity measures, he considers the impact on his department comparatively less severe. Since they are concerned with exports, they can buffer the impact by seeking out new market opportunities.

4.2.5 Interviewee Nº5 (15.12.2011)

Interviewee Nº5 graduated in International Business from Baden-Wuerttemberg Cooperative State University, after having trained as a management assistant in IT-systems. In his first job he worked as a controller and assistant commercial director. After that he joined a different company as a strategic buyer. He has been with Wagner for 3 years, working in sales and export. In essence, is the interface between the company’s German and UK branches, the latter of which helped found with a local partner. His motivation for joining the company was “half chance, half planned”; the contact established through an acquaintance with whom he had shared his job dissatisfaction. His previous employer had increasingly shifted its production focus from Germany to China, a development he did not approve of and which caused him to seek out the job change. He is clearly accustomed to making conversation; his answers are eloquent and smooth but, despite the occasional buzzword, relatively straightforward.

Wagner Solar’s corporate culture is the company’s outstanding feature, in his opinion. It is characterised by flat hierarchies that allow him to speak to senior management on a daily basis, if necessary. Willingness to cooperate on the part of management is high, and contact between colleagues is open and friendly. He was initially surprised by this because his previous employers had been very different. Before joining the company he had heard about it being different, but was not prepared to the extent to which it manifests itself. He considers it vital to support whatever the company does or sells. Despite stating that this is true for him, now, he insists that it is just as important to keep in mind the competitive context: “If I notice that my values prevent me from being competitive, then maybe I need to rethink my values.” His own motivation is driven very much by his colleagues/team, and autonomy in decision-making, which causes variety in his work and makes it enjoyable. As for him personally, he loses his motivation and “stops thinking” under a “top-down approach [sic]”, i.e. when constantly told what to do. His former employers had more of an “elbow culture”, with less teamwork, more focus on individual achievement, less autonomy in decision-making, and steeper hierarchies. “Perhaps not quite the opposite, but leaning towards it.”

Considering the environmental aspect, he states that it morphed into a priority only in recent years. Even though his parents own a solar system himself, he never used to give it much thought. With immersing himself in the subject matter came the interest, and the thinking. He has noticed a change in himself: “Nowadays I couldn’t necessarily imagine working for a car manufacturer”, whereas straight after graduating, he really only cared about “the fun and, let’s be honest here, the dough”. Again using the car industry as an example, he states that he would probably earn more in a comparative position but has accepted the fact that he is making a worthwhile trade-off in working for “a good cause, somewhere along the line”. He says he is used to a certain standard of living that he would like to keep, but money alone is not incentive enough for him to change jobs. On the other hand, if he ever stopped enjoying his work, was forced to work with someone he cannot work with, or wanted to move elsewhere, he would consider changing jobs.
He values the sense of autonomy his job gives him, and also the variety. When he has to make a decision, he likes to get a second opinion and/or double-check with management, although this depends on the type of decision that needs to be made. Everyday decisions, such as fixing prices, are routinely made by him according to industry standards, with potential input from management. Strategic decisions, on the other hand, are made by a panel of sorts (also typically involving management). Possible examples of strategic decisions include: which countries to enter, who constitutes a “premium customer”, etc. Commonly, the aim is to reach consensus amongst those partaking in the decision. Interviewee Nº5 is no shareholder himself and defines his position on the subject as “neutral”, although he believes employee ownership to be a “good thing” because it ensures independence. The company, as a result, is not required to fulfil external demands; decisions are made by people who know the company and the situation. Where external shareholders are involved, decision-making is about making money, whereas at Wagner the situation is “a little bit different”. The reasons why he is not a shareholder are: he only recently reached the 2-year minimum required stay at the company, and recently acquired a solar system for his own home, which was a major investment, so his current priority is to save money.

The market, in his opinion, has entered a consolidation phase. He predicts a price war that not all players in the market will survive. In photovoltaics there was a price decline of 30% between January and November 2010, which creates pressure on manufacturers: “Now it’s about which companies are healthy enough to survive.” For his export department, this means seeking out new markets and broaden the portfolio. However, he acknowledges the associated difficulties, given the equally adverse conditions in other European markets (e.g. France, Spain). To some extent, the current trend has come as a surprise. After all, the Fukushima incident and subsequent discussion about nuclear energy in Germany in particular were expected to benefit the market. Interviewee Nº5 sees a certain sense of uncertainty on the consumer side as the main reason for market instability, owed in part to the political discussion surrounding the nuclear debate. At the same time, consumers are still interested in solar energy but waiting on prices to continue falling in order to save as much money as possible. Another factor spurring on the price decline is increased production capacity on the manufacturer side. Political decisions may also cause market instability, especially where incentives are lacking. Even though he acknowledges a definite adverse impact on the company, the current issues spur him on even more and motivate him to seek out expanding markets in order to buffer against potential losses in the home market. Given the current situation, on the one hand he thinks that transparency within the company could be improved. On the other hand, he acknowledges that there is a “fine line” between divulging too much and too little information to employees, especially in a market as volatile as the solar energy sector. His department, in particular, has close connections with management (the “grapevine”, as he calls it, is good); he talks to them in person approximately every two days. Moreover, management sends out weekly newsletters via email in order to keep employees up-to-date on current events surrounding the company. All things considered, he feels that intra-company communication is better than in other companies.
5. Analysis chapter

The analysis contained in this chapter is devoted to answering the original research question, “how do ecological, economic and social sustainability influence employee motivation?” In order to do so, the following sub-questions shall be considered:

What constitutes sustainability in the company-specific context of Wagner & Co Solartechnik?
Does sustainability motivate people?
If so, which pillars of sustainability are more relevant in terms of motivation motivate the most? Do some influence more than others?
Are there any significant motivational factors outside the realm of sustainability?

Naturally, the answers will be highly context-dependent and should be treated as such. Wagner Solar is a unique company in every sense, both in its home market Germany and abroad. Both primary data, in the form of interviews with employees, and secondary data, in the form of results from the most recent internal company survey, shall be taken into consideration.

5.1 What constitutes sustainability in the company-specific context of Wagner & Co Solartechnik?

First and foremost, it is apparent that the company successfully avoids the conceptual ambiguity that is often the main source of misunderstanding around sustainability. The term that is used on the company website and by Interviewee Nº1 is “sustainability” [Ger: “Nachhaltigkeit”], rather than “sustainable development”. On the website, social, ecological and economic sustainability – the three pillars of sustainability (Elkington, 2004; Pope et al., 2004; Littig & Grießler, 2005) – are fully accepted and embraced, despite the controversy surrounding the three-pillar model (Giddings et al., 2002; Littig & Grießler, 2005). All are addressed separately and in the aforementioned order: “Social sustainability means social and responsible action with customers, suppliers, partners, employees and the company. Ecological sustainability means protecting nature and the environment to preserve them for the future. Economic sustainability means to strengthen and preserve long-term ability to function, competitiveness and profitability by sensible economic action […] ecological, social and economic sustainability have always been especially important” (Wagner & Co, 2011). Evidently, it is important to management to communicate organisational priorities in a clear and straightforward fashion.

Basiago (1995) discussed different contexts of sustainability and the different associated implications of the concept. The company is actively involved in the realms of biology and environmental ethics by addressing the conservation of biodiversity on behalf of future generations as well as the maintenance and responsible use of natural resources. Its aim is to cut energy consumption, raise energy efficiency, and eventually eliminate the need for fossil fuels by replacing them with solar energy. The company itself leads by example, having built a company headquarters that is in fact Europe’s first passive office building. It consumes merely one tenth as much energy as a conventional building (Wagner & Co, 2011). Furthermore, the company addresses sustainability in
the context of economics through the integration of quality management with environment management and a Sustainable Balanced Scorecard (Wagner & Co, 2011). In doing so, it aims not to over-exploit natural and financial resources, thereby showcasing a long-term outlook backed up by entrepreneurial responsibility. Despite its unique configuration, Wagner Solar operates in a free market and is, therefore, required to be profitable if it wishes to sustain itself. This has been clearly stated by management itself – Interviewee Nº1, too, sees economic sustainability as the company’s cornerstone. It is for this reason that management upholds a long-term view, in an attempt to steer the company through conflict and hopefully sustain it indefinitely. Economic sustainability is required to fulfil the company’s overriding business purpose, which encompasses the social and ecological aspects of sustainability. Sustaining the company financially is a collective goal; it overrides employees’ individual priorities at least to some extent. Nonetheless, the fact that the company argues for “sensible economic action” already suggests that infinite economic growth is not the overriding priority. This, in turn, implies that the company is not a proponent of the pro-growth agenda, or Status quo camp (Castro, 2004; Hopwood et al., 2005).

The company furthermore addresses the realm of sociology, particularly the problems surrounding environmental and social justice (Basiago, 1995), by putting forward the argument that “the earth has enough resources to give everyone on it a life worth living” (Wagner & Co, 2011). Given its business purpose, naturally, the company assumes that solar energy can cope even with an ever-growing global population (Grinde & Khare, 2008), provided that energy efficiency is pursued alongside. This specifically tackles the eco-efficiency domain (Palmer et al., 1997; Tanzil and Bedloff, 2006). The desire to assume social responsibility was the self-stated reason for the company’s establishment, and also addresses the socio-economic domain. To quote the company website, “business success for us is inseparable from socially meaningful products and democratic entrepreneurial structures which place people and the environment we live in at the centre of everything we do” (Wagner & Co, 2011). “People” refers those outside the company as well as its employees; by assuming responsibility for people the company addresses social sustainability as well as corporate social responsibility.

Based on the above discussion it is apparent that the company embraces a three-dimensional conceptualisation of sustainability. Interestingly, the company was established long before the onset of the ‘Globalization’ wave (Elkington, 2001, p. 7), which brought the realisation that sustainability requires a radically different approach to corporate governance. The company has tackled this through developing a unique approach to social sustainability. It is expressed by two main elements: 100% employee ownership of the company, and participation in the form of democratic decision-making structures. In doing so, the company has established a reputation as a trailblazing sustainability pioneer, bridging nature and social needs through work (Littig & Grießler, 2005). Wagner Solar are fulfilling the definition of social sustainability as given by Littig & Grießler (2005, p. 72): they are satisfying an extended set of human needs on conjunction with long-term preservation of the environment in the long-term, all the while adhering to ethical principles of social justice and participation. Hence, there is a strong ethical component to the company’s business purpose. These ethics form the foundation of its distinctly comprehensive and consistent corporate culture (Leszczyńska, 2011). This culture is geared entirely towards looking after its employees whilst, at the same time, contributing to society’s greater good. Consequently, it fulfils all the principles of sustainability (Fuller, 2010): the futurity principle with its long-term
outlook, the environment principle with its focus on the co-efficiency domain, the equity principle as a result of employee ownership, and the participation principle due to employee participation in decision-making. As a result, the company displays strong sustainability (Palmer et al., 1997).

5.2 Does sustainability motivate people?

From the data gathered, it is apparent that economic sustainability constitutes the most basic level of sustainability at Wagner Solar, to the extent that it almost takes a backseat. This relates back to Maslow’s hierarchy of needs. To be economically sustainable, at the individual level, means to satisfy the employee’s most basic needs at the bottom of the hierarchy. Specifically, it means to earn a wage that is high enough for the employee to lead a comfortable life. Naturally, individual interpretations of what constitutes ‘comfortable’ may vary widely and depend on a number of factors, such as job role, previous experience, skill level etc. In Maslow’s terms, earning a decent wage corresponds most closely to safety needs, as it ensures financial security. Financial security, as a sub-need of the safety needs, therefore, belongs to the deficiency needs. Unless these are met, employees will not be able to concern themselves with anything else above that hierarchical level, such as personal growth and self-actualisation. One level down on the hierarchy, to earn a decent wage also helps to fulfil some of the most basic human needs such as food, water, and undisturbed sleep. Securing economic sustainability at the individual level, therefore, is essential if the individual is to achieve metamotivation, i.e. to advance from being driven by deficiency needs to being driven by being needs (Steers & Black, 1994, p. 143; Wilson, 2010, p. 124). If the company goes out of business, employees will, at least temporarily, lose the fulfilment of their financial safety needs, which poses a danger to their wellbeing. This transactional relationship is, of course, also mediated by organisational commitment. The more committed employees are to their company, the larger their emotional involvement, and the more ubiquitous their desire to sustain it. Porter et al. (1974, p. 604) define this as affective commitment.

Interestingly, the most recent intra-company survey revealed a tendency towards increasing material value orientation compared to the previous year. In the ranking of main motivational factors, “I work at Wagner Solar to sustain my livelihood” advanced from rank 5 to rank 2 in the space of one year. Management attributes this development to the difficult market situation and employees’ increasing concern about job security. Regarding the pillars of sustainability, Interviewee Nº1 is aware that employees are bound to have differing individual weightings. As illustrated by the survey, not only are these weightings affected by individual valence, they are also subject to change in response to external stimuli (such as changing economic circumstances). The results of the survey are very much in line with the interviews. Not one of the interviewees cited money as their main motivator. It should be kept in mind, in this regard, that people tend to not tell all the truth in the research process (Rynes, Gerhart & Minette, 2004). Interviewee Nº2c gave money as one of the reasons for joining the company; however, this was only because she was unable to make ends meet with her previous undertaking. This supports the location of economic sustainability at the lowest level of the needs hierarchy. It is not contrary to but in fact supports the argument that money is an important factor when looking at and accepting a job (Barber & Bretz, 2000 cited in Latham, 2007, p. 99). However, this is where the influence of money reaches its
limitations, as it was for Interviewee Nº3 when he started to work for the company – other factors became subsequently more important. In a similar vein, this also fits Interviewee Nº1’s statement about remuneration concerning highly skilled employees – the company pays less than other comparable businesses, and still manages to attract and retain talent. Likewise, Interviewee Nº5 stated that money alone could not prompt him to change companies, even though he is aware that he could potentially earn more elsewhere. His financial needs are clearly being met, and hence his focus has shifted onto other needs further up the hierarchy. This is in agreement with Herzberg’s theory (1966, cited in Latham, 2007, p. 99) that money helps to minimise the effect of dissatisfaction. Thus, if employees are happy, money does not have an influence. Given the idea that employee motivation can be affected by the reward system (Lawler 1971, cited in Latham, 2007, p. 100) together with the fact that the interviews revealed no negative aspects of the pay or reward system, could mean that either the interviewees are very discreet or very satisfied, although the latter seems more likely.

At the company level, ecological sustainability manifests itself as ‘striving for the energy turnaround’. It is clearly stated on the company website: “We are certain that very soon 100% of the energy we need to live on earth will be produced renewably and decentralized. […] We see ourselves as part of a global network shaping this change. Driven by this vision of an ecological and clean future we want to help in creating a world that is worth living in for all people.” An ambitious endeavour like energy turnaround, of course, is impossible to achieve by an individual. It requires the participation and commitment of many over an extended period of time. Therefore, it translates directly into ecological sustainability at the individual level. In order to ‘buy into’ the company vision the employee must internalise the same commitment to ecological sustainability. This sentiment also echoed by Interviewee Nº1 when she says, “I’m working towards the energy turnaround, daily, bit by bit.” The energy turnaround is, in fact, her main self-reported source of motivation. As a part of management it is crucial that she set an example, following a ‘practice what you preach’ approach.

Some of the interviewees share in the same vision and motivation. Interviewee Nº2a, for instance, feels strongly about working for a cause that she can fully support. She considers the energy turnaround a worthy cause, even though it is not the only one she can see herself working for. Interviewee Nº3 and Interviewee Nº4 had already been very clear about wanting to work in the solar energy industry prior to joining the company; it had been a strong motivator for both of them. However, while Interviewee Nº3’s interest is more of a general one in renewable energies, Interviewee Nº4 can also see himself, on principle, working for an aid agency. For others, the interest in ecological sustainability was preceded by some other motivational factor. Interviewee Nº2b, for example, had not been an avid environmentalist prior to joining the company, although it is apparent from his account that he is now more immersed in the subject matter. The energy turnaround has taken on personal significance for him due to the birth of his son, for whom he would like to preserve the natural environment. Interviewee Nº5 claims to have undergone an even stronger transformation. Having had no previous interest in environmental protection, he goes as far as declaring that he would now have reservations about working for a car manufacturer. He displays a certain degree of self-awareness by acknowledging that extended exposure to company values has played a big part in changing his attitude. Interviewees Nº1, 2a, 2b, 3, 4, and 5 all indicated that their values have affected their choice of work, confirming the findings of Verplanken & Holland (2002). Their study brought up the idea that individuals will make decisions
based on their value systems. Some employees show that their ecological values motivate them also with regard to nonwork activities, since some of them are active in environmental initiatives e.g. anti-nuclear (as stated by Interviewee Nº1 and Nº2b). The trend observed in the interview data is echoed by the survey. For the majority of employees, an interest in solar technology and working towards the energy turnaround is their most important source of motivation.

It is relevant to discuss whether the company hires people that are already committed to the company’s vision and mission, or whether the company works to change people’s values, that is, to “socialize employees”. From what has been already discussed, it was not only Interviewee Nº1 who showed a preference for the solar sector and the company previously to her hiring; Interviewees Nº2a, 3 and 4 also stated that they had had a prior interest in working in the solar sector. As for Interviewees Nº1 and 3, this interest arose already during as their university years. When asked about their interest in working for the company, Interviewees Nº1 and 3 stated that working in the solar sector had been the main reason, and although Interviewee Nº2a talked about the overall vision in more general terms, this includes the energy turnaround. The transformation experienced by Interviewee Nº5 could be based on the idea that attitudes may change in accordance with jobs and roles (Lieberman, 1956, cited in Pinder, 2008, p. 95). This reasoning could also apply to Interviewee Nº2b, although his change in attitude is perhaps more closely related to changes in his family life (i.e., the birth of his son). Furthermore, both cases might be an example of “content-related changes of work motivation” (Hertel & Wittchen, 2008, p. 48). This could also be the reason why Wagner Solar’s highly skilled employees, although paid less than the industry average, are still committed to the company. Moreover, this would support the idea that Wagner Solar hires people that display a positive attitude to company principles, although this is more of a bonus than a key determinant, and there are exceptions. An alternative explanation is provided equity theory: perhaps these inequalities in remuneration are not being perceived as unfair by employees. The ethical dimension of selecting employees on the basis of their personal values could be discussed, although this is beyond scope of this thesis. However, as the researchers understand it, this would constitute an example of positive discrimination, in the sense that it should not be a reason to reject candidates lacking in the desired values. The company does not appear to make deliberate attempts to socialise its employees, since there are employees that still do not completely share in the company’s values (Interviewee’s Nº2c), and also because it would go against social sustainability principles. What is apparent, however, is that the company cultivates a highly transparent communication and information policy (although Interviewee Nº5 indicates that could still be improved), which also serves to perpetuate its values. In any case, Wagner Solar exhibits a strong and largely homogenous corporate culture that affects most of their employees’ work motivation.

This organisational culture (analysis can be found in Appendix 4) includes the company’s core values as fundamental part of its paradigm. These are economic, ecological and social sustainability values, and are very clearly communicated by management, both internally and externally. Sustainability values are also echoed by the interviewees in the form of governance structures (mentioned by Interviewees Nº1, 2a & 3) and managerial attitudes towards the satisfaction of employees’ needs, such as a healthy work-life balance. The latter is an example of effective leadership and communication policies.
In terms of social sustainability, employee ownership and participation impact differently on employee motivation. Out of the two, democratic decision-making appears to exert the greater amount of influence. Several interviewees, particularly on the engineering side, cite favourably the ‘decision-making in teams’ aspect and the flat hierarchies. Interviewee Nº1 states that there is a common democratic understanding in the company, which is encouraged by management to the extent that employees would object if they detected violation; she openly appreciate this. “The company is ours, we are independent of investors, and make our own decisions”, hence, can be considered a company mantra of sorts. At the individual level attitudes and behaviours become shared and produce an emergent collective structure of attitudes, norms, and behaviours that affect organisational outcomes (Latham, 2007, p. 106). Latham, 2007, p. 107). This is especially true in the case of Wagner Solar where individuals established the company based on common values, and have been able to sustain it owing at least in part to the ownership structures and democratic decision-making processes.

In the focus group, the overall opinion of the governance structure was less favourable. Although participants stated that they see both positives and negatives, they then went on to focus mainly on the negatives. Perhaps this is owed in part to the dynamics of the focus group. Interviewees Nº3, Nº4 and Nº5, on the other hand, commented favourably on the democratic structures. The main reason they gave was that the governance structure provided them with a large degree of individual and team autonomy. It is a reciprocal expectation: on the one hand, management expects potential and existing employees to be responsible and self-reliant. On the other, employees enjoy the responsibility, find it makes their work easier and see it as a sign of trust from management. In general, the interviewees reported their appreciation for the ability to work independently. Interviewee Nº2c, for instance, remarked that her freedom to organise her workstation as she wishes helps her to work more efficiently. It is apparent, here, that autonomy is granted to all employees equally, irrespective of their qualifications or skill level. This is the equity principle of worker cooperatives in practice (CICOPA, 2011). Furthermore, it fits with the definition of job autonomy as “the extent to which a job allows freedom, independence, and discretion to schedule work, make decisions, and choose the methods used to perform tasks” (Morgeson & Humphrey, 2006, p. 1323).

With regard to job autonomy, Morgeson & Humphrey (2006, p. 1323) have mentioned three sub-dimensions, all of which were picked up on by the interviewees to some degree. In particular, the interviews showed evidence of freedom in decision-making. There was also evidence for a certain degree of freedom in work scheduling, as cited by Interviewee Nº1. Freedom in work methods, although not explicitly stated, was implied in some of the interviewees' accounts, e.g. Interviewee Nº2c. As far as other motivational work characteristics are concerned, task variety was mentioned by Interviewee Nº5 as a factor that makes his work enjoyable. On the other hand, skill variety, which is quite distinct from task variety, was not specifically commented on by any of the employees, nor did it appear in the survey. Task significance has been identified as the degree to which a job impacts on the lives or work of others, and is linked to feelings of meaningfulness (Hackman & Oldham, 1975, p. 161). In the case of Wagner Solar, it is clearly related to company culture, which encompasses both its vision of the energy turnaround and its social commitments that are integral to its existence as a worker cooperative. There is clearly a sense of this in the company, although it was recounted predominantly as a secondary concern by the majority of
employees, with other aspects taking on precedence. However, a clear distinction needs to be made between those aspects of task significance that pertain to ecological sustainability versus those related to social sustainability. Regarding work priorities, the intra-company survey placed “serving a societally significant purpose” at the bottom of the list. As for company values, taking on “social responsibility only takes place 6 out of 10. Nonetheless, wanting to contribute to the energy turnaround has remained the single most important reason why people want to work for the company. Consequently, the ecological component of task significance appears to have a stronger motivational impact on the cohort than the social component.

In a similar way that working in groups has consequences that can be considered “motivation losses” or “motivation gains” (Hertel & Wittchen, 2008, p. 49), it could be say that working in a democratic decision making structure has “motivation losses” factors as has “motivations gains” factors. Which ones prevail depends on the values, personality, job, etc. of the individual employee.

The interesting aspect about job autonomy is that it has been found to be mediated by intrinsic motivation. Employees displaying high levels of intrinsic motivation, given that they have internalised their job roles and obligations, respond to organisational demands for, or offerings of, personal autonomy with enhanced performance levels. They may also require less structure, assistance by supervisors, and external regulation compared to employees with less intrinsic motivation (Dysvik & Kuvaa, 2011, p. 378). This explains both employee preference for being able to work autonomously as reported in the survey, and the continuous mentioning of such preferences by the interviewees. Interviewee Nº1’s reported preference for employees who are self-reliant completes the picture. The company appears to both attract and seek out employees who value the ability to work autonomously. This could be also explained by nationality, based on the study by Alpander & Carter (1991), in which Germans showed a higher need for autonomy than many other nations (Alpander & Carter, 1991, p. 29). At the same time, it could also explain the prevalence of and preference for group work in the company, as it satisfies the need for belongingness (Alpander & Carter, 1991, p. 29).

One factor that at first seems to have no direct link with any of the three pillars of sustainability, but was mentioned repeatedly by the interviewees, was good work atmosphere, specifically good relations amongst colleagues. Interviewee Nº3, for instance, rated his immediate work environment as so good and so important that it even alleviates any work-related stress he encounters. He went on to report a direct link between good work atmosphere and high levels of productivity. All other interviewees also reported deriving satisfaction and motivation from their work atmosphere and/or team. These can be classified as “motivation gains” (Hertel & Wittchen, 2008, p. 49) associated with working in a good environment that allows for information sharing, etc. Even those employees who did not comment overwhelmingly favourably on work environment stated that it is relatively relaxed and informal, and largely preferable to their previous workplace (if any). A positive work environment and good collaboration with colleagues also showed up as important on the survey. It was ranked third as a motivational factors and is also very important to employees in their everyday work. It has, however, been overtaken by material concerns compared to the previous year. This suggests that although work environment it is clearly important to the employees, in times of crisis, it is not a top priority. One could hypothesise that there is a correlation
between work atmosphere and organisational culture at Wagner Solar, which is characterised by a genuine concern for employees as well as the wider social context.

There are numerous factors that potentially influence people's perception of work atmosphere. This is related to Verplanken & Holland's (2002, p. 445) conclusions about the ability of a person to react to a situation that affects one of their values, and explains attitude changes as well as incongruent reactions to opportunities. For example, Interviewee Nº2b was offered the opportunity to work closer to home and, therefore, decided to assimilate with an informal culture that does not entirely match his ideal. As suggested above, if it is true that people who value personal autonomy congregate at the company, then there is reason to assume that colleagues will have some common ground at least where work values are concerned. This might have a positive impact on relations between colleagues. It is further possible that employees bond over a common goal (the energy turnaround), common passion (solar technology), or a joint commitment to the company. However, from the interviews and information gathered, the commitment of the workers is always first and foremost to the organisation, whatever strong relations the employees might have with their co-workers or with customers.

The focus group compared to the last two interviews highlights the limitation on the level or degree of satisfaction that Locke & Latham (1990a, cited in Latham, 2007, p. 107) considered. It seems that the performance is already high for Interviewee Nº4 and Interviewee Nº5, and therefore they are more concerned about the level of work than goal attainment. The interviewees did not specify whether they do their jobs well; if at all, this was implicitly stated. However, the fact that Interviewees Nº2b and Nº4 were either dissatisfied with previous work or would like a change of position within the company, even if they did and do their jobs well, the assumption that performance leads to satisfaction because individuals will like what they do well (Lawler and Porter, 1967, cited in Latham, 2007, p. 105) does not apply here.

Another important aspect related to social sustainability is the company’s attitude towards family and work-life balance. A healthy work life satisfies a basic physiological need (Sadri & Bowen, 2011, p. 46). As Landy & Conte (2004, p. 404-405) mention, this has become a growing concern for people, since the lack of balance has become a popular area of research. From all the interviews, only Interviewee Nº2b did specifically indicate that his main reason to work for Wagner Solar was that the company “was close to home”, unlike his previous employer. This, for him, meant saving hours of commuting each day that could instead be spent on with his family. However, other interviewees also mentioned the amount of work that they had (Interviewee Nº4 and Interviewee Nº5), stating that the levels of stress they experienced were only made bearable thanks to a good work environment. Since the department in question deals with the international operations of the company, it could be interesting to compare their work-life balance with employees in other departments. It is likely that the current dynamics and problems in the company’s home market (see Appendix 5) and resulting increased internationalisation strategy has shifted the balance towards work rather than life. Does this affect their motivation and if so, how? From their interviews, Interviewee Nº4 showed a total commitment to the company’s values, while Interviewee Nº5 appeared to be more motivated by the type of job. However, neither of the interviewees showed obvious signs of work addiction (Lawler & Hall, 1970, cited in Pinder, 2008, p. 3003). In addition, it has to be taken into account that the company displays a genuine
interest in satisfying employee needs for self-esteem through recognition (Interviewee No.2c) and the need for self-actualisation (Sadri & Bowen, 2011, p. 47-48). In doing so, it demonstrates its the commitment to social sustainability values.

However, working at Wagner Solar is not without its perceived negatives. Several that came up during the interviews were, in fact, related to company’s unique decision-making structures. For one thing, democracy generates an issue with responsibility. Since management is newly elected every two years, someone who is a colleague one day may become a superior the next. This may cause people to be reluctant to exercise their legitimate power which, in turn, may lead to a lack of forcefulness when it comes to decision-making. Another related problem is that democratic decisions may take longer to make. Since authority is placed with those who have the expertise, a large number of people may be involved in decision-making. The more strategic the decision, the larger the number of people involved, and the longer the time it takes to take it. This can create real problems where speed is crucial, which is likely to happen routinely given the dynamics of the solar energy sector. As the company expands the issue is likely to amplify, because democratic structures are difficult to uphold in a larger company, as stated by some of the interviewees (e.g. Interviewee No.2a).

Another problem is related to language. There are two levels of politeness in the German language. When addressing someone, “Sie” is the more polite form and commonly in the workplace, certainly with superiors. “Du”, on the other hand, is reserved for acquaintances, friends, and family. At Wagner Solar, it is common practice that everyone addresses each other with “Du”. This may create problems, particularly with regard to criticism. As one interviewee observed, it becomes more personal when “Du” is used. Also, it blurs hierarchical levels, making superiors appear to be on equal footing when in reality they are not.

Another problem that was indirectly identified by Interviewee No.3 is a certain “island” mentality affecting his department, and possibly others too, given the sense of anonymity cited by Interviewee No.2a. This mentality is a by-product of the autonomy granted to individuals and teams. A potential consequence is the emergence of ‘silo’ mentalities and a lack of communication between departments. In the worst case, this could become a barrier to strategic alignment in the future.

Going back to the research question, it is possible to answer affirmative; sustainability does motivate employees of Wagner Solar, as the analysis has been able to prove. Having looked at the most relevant theories of work motivation, it seems that Wagner Solar’s employees are motivated predominantly by cognitive theories.

5.3 Which pillars of sustainability are more relevant in terms of motivation? Do some influence more than others?

Taking into account the results from the interviews and focus group, is possible to analyse the main motivators. From this analysis, it is clear that for the interviewees the most relevant pillar is the social one, since most of them commented on the main motivators connected to it. These findings are summarised in table 3. It is important to mention that Interviewees No.2c, 3, 4 and 5 all mentioned autonomy as their main motivator. Then again, work atmosphere is the main motivator for Interviewees No. 2c,
Other socially related aspects, responsibility and the possibility to make a difference also appear as main motivators. The governance structure is especially important as a secondary motivator (Interviewees Nº2a and 3), and decision-making processes is mentioned by Nº2a and Nº4. Different motivators that are related to job design are also mentioned by Nº2a, Nº3 and Nº4: these vary from the possibility to see the achievements at the end of the day, to seeing and experiencing something new every day. The flat hierarchies, on the other hand, are only mentioned by Interviewees Nº3 and Nº5, and only as secondary motivators. Employee ownership is another social sustainability related motivator that is only mentioned by Interviewees Nº1 (who is a manager) and Nº3. Another motivator that is mentioned by Interviewees Nº4 as main motivator and by Nº2c as secondary, is the possibility to contribute to the greater good, which could be related to either social or to ecological sustainability. Overall, the impression is that the social values of Wagner Solar are the most pervasive (as reflected in different attitudes and behaviours such as autonomy and responsibility, healthy work atmosphere, etc.) and, therefore, the main motivators for its employees.

The ecological pillar, too, seems to motivate Wagner Solar employees considerably, given that the main motivator for Interviewees Nº3 and 4 is environmental protection, while for Nº1 the sole motivator is “to work towards the energy turnaround”. The survey confirms the importance of the ecological pillar, considering the high standing of the energy turnaround as a motivator. Out of the three pillars, the economic pillar is the least important, and is only mentioned as a (secondary) motivator by Interviewees Nº 3, 4 and 5.
Table 3: Interviewees’ Motivators

<table>
<thead>
<tr>
<th>Interview nº</th>
<th>Main motivators</th>
<th>Other motivators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working towards the energy turnaround</td>
<td>Working with people who conduct themselves as “responsible/mature citizens” Responsibility Employee ownership Democracy</td>
</tr>
<tr>
<td>2a</td>
<td>To be able to identify with Company’s vision</td>
<td>Governance structure Informal but respectful atmosphere</td>
</tr>
<tr>
<td>2b</td>
<td>Closer to home He can actually change things &amp; make an impact</td>
<td>His son’s future</td>
</tr>
<tr>
<td>2c</td>
<td>Hierarchy - she is taken seriously Constructive criticism Autonomy Responsibility To be able to see her achievements at the end of the working day To work in a good team</td>
<td>Working for a good cause</td>
</tr>
<tr>
<td>3</td>
<td>Environmental protection Work atmosphere - enjoys working with team, similar age, laugh together, cosy</td>
<td>Employee ownership structures - stakeholder Employees are “not just a financial component, but a human component” Flat (horizontal) hierarchies Democratic governance structure - democratic division of labour; democratic decision-making Seeing &amp; experiencing something new on a regular basis (&amp; change job every few years) Money Autonomy</td>
</tr>
<tr>
<td>4</td>
<td>Environmental protection Contributing to society’s greater good Autonomy</td>
<td>Technical &amp; innovation-related aspects of his work Company’s business purpose</td>
</tr>
<tr>
<td></td>
<td>Company's value system matches his own (“60%”) The task - fun &amp; inspiring Money Being challenged &amp; supported” Decision-making structure - autonomy &amp; speed Work atmosphere - “very relaxed, very good company, very free in terms of configuration”</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Autonomy Work atmosphere (colleagues &amp; team) Diversity of type of work</td>
<td>Flat (horizontal) hierarchies Environmental protection Money</td>
</tr>
</tbody>
</table>
5.4 Are there any significant motivational factors outside the realm of sustainability?

There only aspects mentioned that were not related to sustainability were not considered motivators, since were discussed as disadvantages of the informal atmosphere (e.g. with regard to formal/informal language use).

However, the area of work motivation research is so vast that there could easily be motivators that have not been picked up on because they are out of the scope of the present research. These could include power, lust and sex – highly sensitive issues that are difficult to investigate – and emotions, another good example that may exert a significant influence on work motivation, but not necessarily with regard to sustainability.
6. Conclusions

6.1 Summary of analysis

Having performed data analysis, it can be concluded that sustainability does indeed motivate people. Economic sustainability constitutes the most basic level of sustainability at Wagner Solar since assures financial security to employees. This is a sub-need of the safety needs, and therefore one of the first that needs to be satisfied according to Maslow’s hierarchy of needs. However, employees seem to be far more motivated by ecological and social sustainability, which correspond to needs higher up the hierarchy. The former is expressed in the corporate mission, in the form of striving for the energy turnaround. The latter is represented by employee ownership and democratic decision-making structures, and associated social aspects such as autonomy. Another important conclusion from this research is that Wagner Solar has established a strong and coherent corporate culture that impacts on employee work motivation. It is built on social and ecological values as well as a long-term economic outlook, and creates a pleasant and fruitful work atmosphere.

6.2 Achieved research aims

This research has achieved its main objective: to answer the research questions. In order to do so, the concept of sustainability and work motivation were both analysed in depth. The literature review has accomplished its objective of highlighting the most relevant theories in each field. Crucially, this research has also been able to synthesise the two fields. The empirical data and the conclusions drawn from its analysis are a fascinating starting point for further research in this area.

6.3 Valuable research findings

The most valuable research findings that this research provides to the academic discourse are the connections between work motivation and the three pillars of sustainability. These connections, especially the ones related to commitment and values could be used by companies to either enhance the HR policies, by reducing turnover, and selecting the correct people, and also by facilitating an appropriate culture within the company to maintain those individuals. Beyond that, the research shines light on the workings of a truly sustainable company that addresses all three pillars of sustainability in unison. In fact, Wagner Solar can be considered a prime example of a sustainable company that displays fundamentally Transformist tendencies in its social sustainability orientation. Essentially, the company is a worker cooperative that operates successfully in a free market system. It is also thoroughly committed to its ecological and social values. If sustainability is to be achieved on a global scale, more similar companies are needed.
6.4 Strengths and weaknesses of the research

The main benefit derived from this thesis that constitutes its main strength is that opens up a new area of study, which is particularly interesting given the current relevance of work motivation and sustainability in all its manifestations. Both areas can be expected to only increase in relevance in the future as sustainability issues become more and more pressing. From further research interesting outcomes could develop: from ideas that help develop business concept ideas based on sustainability, to insights into sustaining already existing sustainable businesses, to pointers that help transform non-sustainable businesses into sustainable ones.

The main limitation of this thesis is that it should be considered a preliminary, or exploratory, study of how sustainability motivates employees. A potential follow-up could narrow the focus by investigating a single motivational theory, linking it with sustainability, and explores the implications within the given background. For example, a study of Maslow’s hierarchy of needs in relation to sustainability could be conducted, which would include an investigation of employees’ levels on the hierarchy, etc.

In terms of research design, the single case study approach has inherent limitations. In particular, the emphasis on a cross-sectional semi-structured interview approach carries the risk of response consistency bias and a danger in asserting any causal relationships (Saunders et al., 2009, p. 130). As stated in the methodology section, an interpretative inductive research approach that is based on qualitative methods presents some issues surrounding reliability and validity. Similarly, there is the issue of replication that case studies inevitably face. Another limitation is concerned with the amount of data collected; for the analysis of some aspects of work motivation other data collection techniques (such as surveys) would have been more appropriate. A survey had in fact been intended to complement qualitative data collection, but could not be administered in the end due to factors outside of the researchers’ control. To some extent, the intra-company survey, as a source of secondary data, could be used as a replacement. However, the researchers did not partake in its design and it is, therefore, unclear whether it can be considered methodologically sound. However, all things considered, the present study still qualifies as good research under the following criteria: Yardley’s criteria (2000, p. 219), internal and external validity, and internal and external reliability (LeCompte and Goetz, 1982, cited in Bryman and Bell, 2011, p. 395); and Lincoln and Guba (1985) and Guba and Lincoln (1994, both cited in Bryman and Bell, 2011, p. 395).

6.5 Implications for practice

The main suggestion to be made is to be aware of the work motivation research and its implications to sustainability when considering new policies in companies, establishing new companies, or developing novel business ideas. It also has practical implications for Human Resources policies, since the findings are clearly connected to aspects such as employee selection and retention (how to select the correct people, possible turnover reduction, enhancement of culture to ensure retention, etc.).

For the company, Wagner Solar, this research can help to understand further their employees’ motivation, and help to enhance and ensure it. It would help specially the
development of knowledge regarding decision making; for instance, it might be possible for the company to find solutions to some of the drawbacks outlined by the respondents.

This research has also implications for a particular area of business science, namely change management. Although is not part of the aim of this study, some of the conclusions are relevant when considering the implementation of sustainability, especially when connecting it with profitability. This is an aspect that could be further developed in future research as well.

For sustainability researchers, is fundamental to understand the motivational implications on the business and management environment in order to convince companies of the need to pursue the three pillars of sustainability. This is especially relevant for practitioners. For motivation researchers, it would be interesting to elaborate on existing findings using ethnographic studies and surveys, all the while paying special attention to the motivational role of sustainability.

6.6 Suggestions for future research

This research is a single case study, but in order to increase knowledge and improve the possibility of generalisation a multiple case study could be conducted. This could permit a cross-cultural and international research comparing different companies from more than one country, studying the importance of national culture as well as organisational culture; and/or include more than one sector/industries. Another possibility could be to focus the case study on types of individuals, e.g. managers, or group of individuals, by departments. Also, the topic could be approached as a longitudinal study, given the current economic situation, and compare it with a future, perhaps more favourable, situation.

Further study on the reward system that the company has could generate interesting insights about the effects of extrinsic motivation on intrinsic motivation with regard to both economic and ecological sustainability. Following Deci’s theory (1975, cited in Latham, 2007, p. 101), in combination with the values and commitment analysis, it could be studied whether receiving an extrinsic reward for something that an employee already believes to be correct (e.g. ecological values) would dismiss motivation. Also, without more specific information about goals (internal setting of goals) is difficult to study the effects of the reward system from a goal-setting approach. Both topics go above and beyond the scope of the present study and constitute, by themselves, another two potential theses.

It would also be interesting to develop a study of the links between work motivation, satisfaction and the homogeneity and strength of Wagner Solar’s company values. Similarly, it would be interesting to develop further the ethical discussion surrounding the socialisation of employees and investigating whether or not it is taking place inside the company. In connection to the hierarchy of needs, the influence of occupational safety, health and general well-being considerations as a factor to join or remain in the company could be studied further. This could then be connected to the three pillars of sustainability.
Another interesting question to answer would be Do values change with age/time spent in the company? Although the literature review indicated that, for example, job satisfaction seems to indeed increase with age (Hertel & Wittchen, 2008, p. 49; Clark et al., 1996) and at least one interviewed confirmed that his main motivator had changed throughout the years (Interviewee Nº4), in order to answer this question a proper cross-sectional study is needed. Only in doing so would it be possible to find out whether Interviewee Nº4’s value transformation was due to changes in job or because his basic needs were satisfied with sufficient money (Barber & Bretz, 2000).

The literature review establishes a relationship between qualification level (high/low skill levels) and motivation, and its effect on satisfaction and performance. It would be interesting to develop a study of this topic in the field of sustainability. Similarly, effects of personality on work motivation within the same arena are deserving of further research. Personality differences that the present study has hinted at should be taken into account in further research, using the “Big Five” traits or other personality assessments.

Another important aspect to consider is whether job satisfaction leads to organisational citizenship behaviours (as Organ (1977, 1990, cited in Latham, 2007, p. 106) stated), or whether the existing company culture, combined with employees values, creates citizenship behaviours that lead to job satisfaction.

From a goal-setting perspective, there is a relationship between goal difficulty and performance, which suggests that participative decision-making would impact positively on performance (Latham, 2007, p. 110). This is another field that is deserving of further study.

Likewise, it would be interesting to consider Ostroff’s (1992, cited in Latham, 2007, p. 106) proposed relationship between when high morale and high productivity. Given the struggles currently faced by company due to market developments, this aspect could be studied further. However, this would necessitate further data collection on indicators of productivity that allow for comparison between the previous, current and future situation. Morale could be assessed through the use of surveys, while productivity could be measured using production ratios, hours worked, other similar indicators, or a combination of several.

Another area of future research would be to study further the link between Wagner Solar’s organisational culture and work motivation, in particular work atmosphere. For this, a longitudinal study would be most appropriate including quantitative methods of inquiry (e.g. surveys in all departments), so as to fully investigate the extent of the relationship.

The present study has not considered motivators such as emotions, or power, love and sex, or job design as such. These could also be made the object of further research, but their connection to sustainability is not expected to be as strong compared with the above-mentioned factors.
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Appendix 1.
Question guide for Interview 1

Please introduce yourself, your job history, etc.

How and why did you join the company?

What distinguishes the company from others?

Company purpose/mission?

Company culture?

What is your role?

Please describe the company structure. How does it impact on employee motivation, in your opinion?

Are you currently recruiting new employees? If so, what personal characteristics are you looking for?

What motivates you in your daily work?

How successful would you say the company is nationally/worldwide? How do you define success?

What is the current market situation?

How was it possible to sustain the company, in its current configuration, for so long?

Would you say your business model is transferable? To other sectors?

How do you envision the future of the company? What is your planning horizon?
Appendix 2.
Question guide for Interviews 2-5
Bitte kurz vorstellen. Beruflicher Werdegang etc.
*Please introduce yourself, your job history, etc.*

Wie sind Sie zu Wagner Solar gekommen? Was ist Ihre Rolle im Unternehmen?
*How and why did you join the company? What, precisely, is your role?*

Was ist Ihrer Meinung nach das besondere an Wagner Solar?
*What do you find unique about the company?*

Deckt sich Ihr Wertesystem mit dem der Firma? Wie wichtig ist das Ihrer Meinung nach?
*Is your personal value system compatible with that of the company? How important is that to you?*

Sind Sie Teilhaber?
*Are you a shareholder?*

Was, würden Sie sagen, motiviert Sie in Ihrer täglichen Arbeit (am meisten)? Woher nehmen Sie Ihre Motivation?
*What motivates you the most in your daily work?*

Wie wichtig ist es Ihnen, dass Ihr Arbeitgeber aktiv zum Erhalt der Umwelt beiträgt?
*How important is it to you that your employer contributes to environmental protection?*

Wie sehr motiviert Sie Geld?
*How much does money/your wage motivate you?*

Wie wichtig ist es Ihnen, eigenverantwortlich zu arbeiten?
*How important is the ability to work autonomously?*

Wie wichtig ist Ihnen, dass das Unternehmen, für das Sie tätig sind, in Arbeitnehmerhand ist?
*How important is it that your organisation is employee-owned?*

Wie würden Sie momentan die Lage auf dem Solarmarkt einschätzen? Wie wirkt sich das aufs Arbeitsklima aus?
*How would you describe the current market situation? How does it impact on the work atmosphere?*

Für wie effektiv erachten Sie die Entscheidungsstrukturen bei Wagner Solar (dezentral/demokratisch) im Geschäftsalltag? Gerade in Krisensituationen?
*How effective to you consider the decision-making structures in the company (esp. in a crisis)?*

Haben Sie selbst Kinder?
*Do you have children/a family?*

Wie zufrieden sind Sie mit Ihrer Arbeit momentan?
*How satisfied are you with your job, currently?*
Appendix 3.
Solar energy in Germany – a sector overview

The sun supplies the earth with around 220,000 trillion kilowatt hours of energy every year. This amounts to 3,000 times the global energy demand. When considering harvesting the sun’s energy Germany is not the immediate logical choice, given that it has relatively low levels of insolation. Nonetheless, it is still worthwhile. In Germany 850 to 1,150 kilowatt hours of energy can be produced per square meter (RENI, 2010, p. 12). There is sufficient technology available to satisfy home owners’ electricity, hot water and heating needs at a reasonable cost with the use of solar thermal technology and photovoltaics.

In 2009, there were 15,000 solar companies in Germany, 350 of which were producers. Roughly 10,000 were active in photovoltaics, whereas 5000 were dealing in thermal technology. Collectively, they employed 83,000 people and generated an income of €19.1 billion (RENI, 2010, p. 2). The industry serves as an important source of employment, especially in structurally weak regions in the east. Over 16% of electricity and 7% of heat consumption in Germany is currently supplied by renewable energy. The German Federal Government plans to obtain 50% of the country’s primary energy consumption from regenerative sources by 2050 (RENI, 2010, p. 13).

Germany is currently the world’s strongest photovoltaics market and is renowned for its innovative capabilities. The industry enjoys an excellent reputation worldwide. Its current boom has had a positive impact on the German economy as a whole and certain sectors in particular, such as mechanical engineering. The introduction of the Renewable Energy Sources Act (EEG) in 2000 marked the initialisation of a mass market. 2008 to 2010 were particularly successful years for the sector. In 2009 alone, 3.8 gigawatts of solar energy capacity were installed across the country (RENI, 2010, p. 19). In this environment, many businesses in the sector were growing and thriving. Wagner Solar was among them, upping the number of employees to 400 by 2010.

Now, in 2011, the industry is facing the challenge of compensating for drastic cuts to feed-in tariffs. It is the ongoing goal of the industry is to keep reducing dependence on government subsidies. As a result, there is intense competition to reduce prices and improve production capacities. Since 2006, the cost of solar modules in Germany has already decreased by over 40 % (RENI, 2010, p. 21). Intense competition from abroad, particularly from China, is further driving pressure to reduce prices. By 2014, the total output of newly installed systems globally is expected to reach 30 gigawatts per annum (RENI, 2010, p. 27). The sun rich regions in the south are predicted to turn into major sales markets in the near future. Some German photovoltaics companies have already established subsidiaries in some of these markets. Wagner Solar is one of them, having set up subsidiaries in sun-intensive countries such as Italy, France and Spain. The sector as a whole is currently focused on strengthening export activities and investing in the development of regional distribution networks across the globe. Production capacities abroad are also an area of expansion.

The sun as a source of power is enjoying ever-increasing popularity in Germany. According to recent surveys, 98% of Germans would like to see solar energy be more
widely used (RENI, 2010, p. 38). Three quarters of Germans can see themselves living in a solar house, and more than a million already do. 71% of all Germans see renewable energy as a worthwhile investment. These figures are promising, given that switching to photovoltaics as a main source of energy requires substantial initial investment.

Solar thermal energy is also enjoying increasing popularity, in view of rising prices for oil and gas. A mere six square meters of roof surface inclined towards the sun can generate 60% of the annual heat required for hot drinking water in a private home (RENI, 2010, p. 44). With its efficiency, solar thermal energy contributes significantly towards the achievement of the EU’s climate targets. In 2009, solar collectors in Germany produced around 6 terawatt hours of heat. This prevented the emission of one million metric tons of carbon dioxide. These figures are set to increase even further. The EU member states have pledged to up the percentage of renewables in total energy consumption in Europe to 20% by 2020 (RENI, 2010, p. 45). In order for this target to be reached, 388 million square meters of total collector area will need to be installed across Europe. These solar collectors could produce 155 terawatt hours of heat per year, thereby saving 22 billion metric tons of crude oil and 69 million metric tons of carbon dioxide emissions (RENI, 2010, p. 45).

As with photovoltaics, Germany is one of the leading countries in the world with regard to solar thermal energy. This sector, too, exhibits a great extent of innovation that drives market growth. In 2009, nearly one third of all patent applications in the field of green technology were submitted by German solar thermal companies (RENI, 2010, p. 52). Innovations such as the ‘Sonnenhaus’ (solar house) keep on strengthening Germany’s international competitiveness. The Sonnenhaus can produce up to 100% its internal heating from solar energy, using an intelligent control system, unique heat storage tank and optimal insulation levels.

The solar thermal energy field is led by small and medium-sized enterprises (SMEs), one of which is Wagner Solar. A total of 145 manufacturers and suppliers and 86 distributors of solar thermal components are currently active in Germany, and the industry currently provides full-time employment for nearly 13,000 people (RENI, 2010, p. 52). Akin to the photovoltaics segment, the solar thermal energy industry aims to reduce production costs for collectors whilst improving the quality of components.

The most successful year for solar thermal technology to date was 2008. Approximately 1.9 million square meters of collector area were installed in Germany that year (RENI, 2010, p. 53). However, due to the economic crisis the industry experienced a drop in new installations the following year. In 2010 the situation worsened due to a change in political strategy. As a result, the German budget committee imposed a ban on the market incentive program (MIP). This caused a temporary collapse of the market. The ban was lifted in July, but consumers were left distraught and the market has remained somewhat unstable as a result. The German Solar Industry Association predicts that sales will not return to the levels achieved in 2008 until 2012 (RENI, 2010, p. 53). Similar developments are observable in other European markets such as Italy, France, and Spain. The energy turnaround remains on Europe’s political agenda, but it seems to be losing momentum. In the German photovoltaics market, the target value for 2011 was reduced to 3.5 gigawatts, down 4 gigawatts from 2010’s real growth. A follow-up with Ms. A. revealed that the government is contemplating additional cutbacks for 2012.

The industry has spoken out in favour of the MIP, arguing that is has the potential to propel the market forward whilst benefiting the federal budget. Industry is holding
government accountable, calling for a consistent climate conservation policy and demanding a legal claim to subsidisation, e.g. in the form of an amendment to the Renewable Energy Heat Act. In the absence of supporting government policies, they argue, the ambitious EU targets will be difficult achieve. The long-term goal is to fully cover heating requirements by renewable energy sources, with solar energy accounting for about a third (RENI, 2010, p. 55).

Under the current adverse circumstances, Wagner Solar has had to revise down its revenue projections for the present year. In an effort to adapt to the changing conditions, management was forced to axe 80 full-time jobs in the autumn of 2011. In addition to a reduction in market size the industry anticipates a further 15% cut in feed-in tariffs for early January 2012. As a result, sales are predicted to be below average for the first months of the new year. The photovoltaics division is expected to be most severely affected by the sales decline, but solar thermal energy is not likely to emerge unscathed from the crisis either. In order to avoid further job cuts, therefore, the company plans to introduce short-term work for the low-yield months of 2012. Predictions for the remainder of the year are more positive. Wagner Solar expects sales to be on the increase again as the months progress, hoping to return to offering more stable employment to its existing staff. By 2013 the energy turnaround is anticipated to regain its momentum, allowing the sector to continue on its growth mission. The future will likely see a decline in the global market share of German solar companies; however, their turnover will still undergo steady long-term growth (Wasserrab, 2011). Nevertheless, if they intend to keep growing, German solar firms will need to further expand their operations abroad. Another challenge for the industry is to reduce production costs of solar modules so as to sustain their profit margins. This is especially important in the face of intensifying competition from abroad, especially the US and China (PWC, 2010, p. 16). The attribute “made in Germany” is in danger of losing its standing as a major quality criterion.
Appendix 4.
Cultural Web

The cultural web elements are:

**Stories:**
- Creation of the company by idealistic "hippies"
- Founders still remain

**Symbols**
- Cooperative & sustainability
- The management so close to the rest of the employees
- Predominance of informal relationship: “family like”
- The logo: easily recognize, also by branches
- Products - quality & strong R&D
- Internationalization
- Knowledge (creation and management): kin in keeping the best employees in all fields, with best skills and continue to develop their skills.

**Power structures:**
- Cooperative
- Democratic decision making
- Vertical structure
- Short power distances
- Core believes are basis for formulating and implementing strategy
- Quality
- Innovation
- Sustainability

**Organisational Structures:**
- Flat
• Functional divisions
• International – not global, just multilocal strategy (based on Lovelock and Yip, 1996, p. 65)
• Team work
• Informal
• Participative decision making

Control Systems:
• Personal responsibility – the other side of autonomy
• Competitive advantage in quality - Total Quality Management
• Ethics
• Communication

Routines & Rituals:
• Long term thinking
  ◦ Reinvestment of profits in the business
  ◦ Research & innovation
  ◦ Quality
  ◦ Market development
• Building competitive advantage for the future:
  ◦ Enhance skills through training
  ◦ Create new knowledge through education
• Surveys to check different issues
• Partnership: building relationship long-term
• Communication –

Paradigm:
• Sustainability: social, economic & ecological
• CSR
• Long term thinking
• Investment in research & development to innovate and maintain competitive position in sector
• Cooperative
• Democratic
• Autonomy & responsibility
• Knowledge creation and management
• Communication
Appendix 5.
Survey
Mitarbeiterbefragung
2011
### Mitarbeiterbefragung 2011

56 % Beteiligung

<table>
<thead>
<tr>
<th>Abgegebene Fragebögen</th>
<th>MitarbeiterInnen im Unternehmen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>236</td>
</tr>
<tr>
<td>Prozentsatz GS</td>
<td>35 %</td>
</tr>
<tr>
<td>Prozentsatz Versand/Produktion</td>
<td>25 %</td>
</tr>
<tr>
<td>Betriebszugehörigkeit:</td>
<td></td>
</tr>
<tr>
<td>&lt; 5 Jahre</td>
<td>51 %</td>
</tr>
<tr>
<td>5 – 10 Jahre</td>
<td>25 %</td>
</tr>
<tr>
<td>11 – 20 Jahre</td>
<td>20 %</td>
</tr>
<tr>
<td>&gt; 20 Jahre</td>
<td>4 %</td>
</tr>
</tbody>
</table>
Die Zufriedenheit ist nach wie vor gut, aber sie hat abgenommen.

Allgemeine Zufriedenheit:

1. Ich fühle mich sehr wohl bei Wagner & Co.

3. Meine Arbeit macht mir Spaß

3.15 Meine Arbeit ist sehr sinnvoll

4. Wie zufrieden bist Du mit der Arbeit in Deinem Team?

4.2 Die Zusammenarbeit mit den KollegInnen im Team ist vertrauensvoll

4.6 Mein Teambeitrag wird wertgeschätzt / nicht wertgeschätzt

5.1 Wie zufrieden bist Du mit der Zusammenarbeit mit anderen Abteilungen?

5.3 Ich würde mir insgesamt mehr Disziplin und Zielorientierung wünschen.

5.4 Fehlende Zuarbeit … behindert mich in meiner Aufgabenerfüllung.

5.5 Manche … nehmen sich Freiheiten heraus, die anderen nicht zugestanden werden.

5.6 Es gibt einiges, das schief läuft… Ich habe mich damit abgefunden.

6.1 Wie zufrieden bist Du mit der Geschäftsleitung?

7. Wie zufrieden bist Du mit der Arbeit des Aufsichtsrates?

7.2 Wir gehen fair, ehrlich und vertrauensvoll mit einander um

Gibt es noch andere Ursachen außer der aktuellen Markt- und Wirtschaftssituation? Was können wir tun?
Die „materielle“ Wertorientierung hat leicht zu,…

2.1 Ich arbeite bei Wagner & Co, um meinen Lebensunterhalt zu verdienen

8.13 Wir wären erfolgreicher, wenn wir marktüblicher bezahlt würden

3.13 Ich hätte gerne klarere Richtlinien für meine tägliche Arbeit

5.3 Ich würde mir insgesamt mehr Disziplin und Zielorientierung wünschen

die „immaterielle“ Wertorientierung etwas abgenommen

2.2 Solartechnik begeistert mich. Ich möchte meinen Teil zur Energiewende beitragen

2.4 … weil ich in einem Unternehmen mit flachen Hierarchien arbeiten möchte

2.5 … weil mir Arbeitsklima und die Zusammenarbeit mit den direkten KollegInnen gefällt

8.1 Mir ist wichtig, dass wir bei Wagner fair, ehrlich und vertrauensvoll mit einander umgehen

8.3 Mir ist wichtig, dass wir unsere FunktionsträgerInnen wählen

8.12 Für mich ist unsere geringe Lohnspreizung ein wichtiger Wert

Der Unterschied ist nicht sehr gravierend, aber wahrnehmbar – was könnte die Ursache sein?
Motivation

Warum arbeitest Du bei Wagner & Co?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Solartechnik begeistert mich. Ich möchte … zur Energiewende beitragen.</td>
</tr>
<tr>
<td>2.1</td>
<td>Ich arbeite bei Wagner &amp; Co, um meinen Lebensunterhalt zu verdienen</td>
</tr>
<tr>
<td>2.5</td>
<td>Weil mir Arbeitsklima und die Zusammenarbeit mit den KollegInnen gefällt.</td>
</tr>
<tr>
<td>2.3</td>
<td>Weil mir meine Arbeit Spaß macht</td>
</tr>
<tr>
<td>2.4</td>
<td>Weil ich in einem Unternehmen mit flachen Hierarchien arbeite möchte</td>
</tr>
</tbody>
</table>

- Solartechnik und Energiewende belegen immer noch Platz 1
- Die materielle Versorgung ist von Platz 5 auf Platz 2 gestiegen
- Arbeitsklima und flache Hierarchien haben an Bedeutung verloren
Was ist Dir bei Deiner Arbeit besonders wichtig?

<table>
<thead>
<tr>
<th>Bei meiner Arbeit ist mir besonders wichtig...</th>
<th>Wichtigkeit</th>
<th>Erfüllung</th>
</tr>
</thead>
<tbody>
<tr>
<td>... dass mir die Arbeit Spaß macht</td>
<td>1,6</td>
<td>2,3</td>
</tr>
<tr>
<td>... dass ich, mit dem, was ich leiste zufrieden bin</td>
<td>1,6</td>
<td>Frage fehl!</td>
</tr>
<tr>
<td>... dass ich in einem guten Team arbeite, in dem ich mich wohlfühle</td>
<td>1,6</td>
<td>Frage fehl!</td>
</tr>
<tr>
<td>... dass ich dazulerne</td>
<td>1,7</td>
<td>2,6</td>
</tr>
<tr>
<td>... dass ich in meinem Arbeitsbereich eigenverantwortlich arbeiten kann</td>
<td>1,7</td>
<td>2,7</td>
</tr>
<tr>
<td>... dass ich genügend Zeit für Privatleben und Familie habe</td>
<td>1,8</td>
<td>2,5</td>
</tr>
<tr>
<td>... dass ich leistungsgerecht bezahlt werde</td>
<td>2,0</td>
<td>Frage fehl!</td>
</tr>
<tr>
<td>... dass ich eine gesellschaftlich sinnvolle Arbeit leiste</td>
<td>2,0</td>
<td>2,1</td>
</tr>
</tbody>
</table>

• Spaß, persönliche Leistung und Team stehen an erster,
• leistungsgerechte Bezahlung und gesellschaftlich sinnvolle Arbeit an letzter Stelle
Von der Unternehmensführung erwarte ich:

<table>
<thead>
<tr>
<th>Wichtigkeit</th>
<th>Erfüllung</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,5</td>
<td>2,9</td>
</tr>
<tr>
<td>1,6</td>
<td>Frage fehlt!</td>
</tr>
<tr>
<td>1,6</td>
<td>3,4</td>
</tr>
<tr>
<td>1,7</td>
<td>2,8</td>
</tr>
<tr>
<td>1,8</td>
<td>3,2</td>
</tr>
<tr>
<td>1,9</td>
<td>2,4</td>
</tr>
<tr>
<td>Frage fehlt!</td>
<td>3,2</td>
</tr>
</tbody>
</table>

Die MitarbeiterInnen erwarten in der momentanen Situation einen Fokus auf:

- der strategischen Weiterentwicklung des Unternehmens
- der Sicherung von Arbeitsplätzen und
- der Sicherung des wirtschaftlichen Erfolgs des Unternehmens
Wirte

Mir ist wichtig, dass…

<table>
<thead>
<tr>
<th>Wichtigkeit</th>
<th>Erfüllung</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3</td>
<td>3,0</td>
</tr>
<tr>
<td>1,5</td>
<td>3,4</td>
</tr>
<tr>
<td>1,5</td>
<td>3,0</td>
</tr>
<tr>
<td>1,6</td>
<td>2,3</td>
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<tr>
<td>1,7</td>
<td>3,2</td>
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<tr>
<td>1,8</td>
<td>2,6</td>
</tr>
<tr>
<td>1,8</td>
<td>3,3</td>
</tr>
<tr>
<td>2,0</td>
<td>2,8</td>
</tr>
<tr>
<td>2,1</td>
<td>-</td>
</tr>
<tr>
<td>2,2</td>
<td>-</td>
</tr>
</tbody>
</table>

- Fairer, ehrlicher und vertrauensvoller Umgang steht immer noch auf Platz 1
- Dicht gefolgt von Kundenorientierung und wirtschaftlichem Erfolg
- Mitarbeiterunternehmen und demokratische Werte stehen momentan nicht hoch im Kurs
Fragen für die Diskussion

• Wir befinden uns in einer Konsolidierungsphase. Wie können wir unser Unternehmen für die Zukunft fit machen?

• Die Mitarbeiterzufriedenheit hat etwas abgenommen. Was sind die Ursachen? Und was können wir dagegen tun?

• Die Wertorientierung hat sich zu „materielleren“ Werten hin verschoben. Welche Bedürfnisse stehen dahinter? Wie können wir diesen Bedürfnissen nachkommen?

• Was erwartet Ihr in dieser Situation von der Firmenführung?

Alles tun, um, Arbeitsplätze zu erhalten!

endlich Maßnahmen ergreifen!
## Appendix 6.
### Tables summarizing empirical content

**Table 4: Summary of empirical content - Interviewee Nº1**

<table>
<thead>
<tr>
<th>Academic/Experiance</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree in environmental engineering</td>
<td>No</td>
<td>German</td>
<td>Female</td>
<td>18</td>
<td>Yes?</td>
<td>Human Resources &amp; organisation - Executive Management CEO</td>
<td>Yes</td>
<td>Since completing a placement in the area before her studies</td>
<td>Yes</td>
<td>Solar Sector, Pioneer in the sector, Governance</td>
<td>Yes</td>
<td>Pioneer of sector, Democratic governance structure, Organisational culture based on participation</td>
<td>Identification with company and goals, Extrinsic motivation: financial incentives (not used much), Highly qualified employees underpay compare with average market, Encourage to be proactive - main factor, Flexibility working times; child-friendly and family-oriented, part-time, Self-responsibility, Key characteristics new employees: autonomy; sense of responsibility; proactive; and intrinsic interest in his or her field of work, to keep improving themselves, their work and the company.</td>
<td></td>
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</tbody>
</table>
### Table 5: Summary of empirical content - Interviewee Nº2a

<table>
<thead>
<tr>
<th>Academic/Experience</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Yes</td>
<td>Germany</td>
<td>German</td>
<td>29</td>
<td>Female</td>
<td>2</td>
<td>No</td>
<td>Sales Department</td>
<td>Yes</td>
<td>Energy turnaround</td>
<td>Yes</td>
<td>-</td>
<td>Flat hierarchies negatives:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Anonymous - she prefers to know personally colleagues</td>
<td></td>
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<td>informal atmosphere negative:</td>
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<td>o criticism sounds more personal</td>
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<td></td>
<td></td>
<td>o clients confusion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Table 6: Summary of empirical content - Interviewee Nº2b**

<table>
<thead>
<tr>
<th>Academic/Experi ence</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industri al mechanical and technical for machine tools</td>
<td>Yes</td>
<td>Fulda</td>
<td>German</td>
<td>-</td>
<td>Male</td>
<td>1</td>
<td>No</td>
<td>Production development</td>
<td>No</td>
<td>Only interested in type of job - improving operational efficiency or productivity</td>
<td>No</td>
<td>Only closer to home</td>
<td>-</td>
<td>• Flat hierarchies negatives: o decisions not followed through o afraid to take drastic measures o problem to hold people responsible • Flat hierarchies positives: o decision-making permits high degree of autonomy o relatively effective and time-saver compare with hierarchical companies • Informal atmosphere - confusing - with boss he refused</td>
</tr>
</tbody>
</table>

**Table 7: Summary of empirical content - Interviewee Nº2c**

<table>
<thead>
<tr>
<th>Academic/Experi ence</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained to be a painter and varnish er; prediploma in study pedagogy; shop attendance</td>
<td>Yes</td>
<td>Germany</td>
<td>German</td>
<td>43</td>
<td>Female</td>
<td>1</td>
<td>No</td>
<td>Painter</td>
<td>No</td>
<td>Flat hierarchies - even in bottom of the hierarchy is taken into account</td>
<td>Yes</td>
<td>Flat hierarchies - positive</td>
<td>• People commitment • “the right attitude”</td>
<td></td>
</tr>
</tbody>
</table>

- Flat hierarchies negatives: o decisions not followed through o afraid to take drastic measures o problem to hold people responsible - Flat hierarchies positives: o decision-making permits high degree of autonomy o relatively effective and time-saver compare with hierarchical companies - Informal atmosphere - confusing - with boss he refused
<table>
<thead>
<tr>
<th>Academic/Experience</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for working in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s and Master’s degree in mechanical engineering</td>
<td>Yes</td>
<td>International</td>
<td>Italian</td>
<td>28</td>
<td>Male</td>
<td>1</td>
<td>No</td>
<td>Sales and export</td>
<td>Yes</td>
<td>At university</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Flat hierarchies (horizontal) positives:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>o individual employee has broad basis for decision making</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>o opportunities to actively shape proceedings</td>
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<td> Democratic governance structure negative - structure + size = difficult to sustain: “communication is not as regulated as in a vertically aligned company.”</td>
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<td> Democratic governance structure positive - strong links to work atmosphere: the better it is, the higher the productivity</td>
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<td> Size negative - lacks a general view of the company; department is “like an island”</td>
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<td> Positive: easier to make decisions</td>
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<td> Positive: autonomy = effective</td>
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</tbody>
</table>

Table 8: Summary of empirical content - Interviewee N°3
### Table 9: Summary of empirical content - Interviewee Nº4

<table>
<thead>
<tr>
<th>Academic/Experience</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy and environment engineering</td>
<td>No</td>
<td>-</td>
<td>German</td>
<td>-</td>
<td>Male</td>
<td>2</td>
<td>No</td>
<td>Sales and export</td>
<td>Yes</td>
<td>Contributing to the energy turnaround</td>
<td>Yes</td>
<td>Most capable and technologically experienced/advanced solar companies worldwide</td>
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</tr>
</tbody>
</table>

- Opposes a pure profit orientation, especially where it overrides purpose and meaning
- Decision-making process negative - inertia (lengthy) compare to hierarchical companies - responsibilities are allocated more clearly
- Job satisfaction - high, however, seeking new postings within company

### Table 10: Summary of empirical content - Interviewee Nº5

<table>
<thead>
<tr>
<th>Academic/Experience</th>
<th>Previous work</th>
<th>Where?</th>
<th>Nationality</th>
<th>Age</th>
<th>Gender</th>
<th>Years in company</th>
<th>Shareholder</th>
<th>Current department</th>
<th>Interest in working in sector</th>
<th>Reasons for work in sector</th>
<th>Interest in working in company</th>
<th>Reasons to work in company</th>
<th>Success factors of company</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Business &amp; trained as a management assistant in IT-systems</td>
<td>Yes</td>
<td>Germany</td>
<td>German</td>
<td>?</td>
<td>Male</td>
<td>3</td>
<td>No</td>
<td>Sales and export</td>
<td>No</td>
<td>Chance</td>
<td>Yes</td>
<td>Opportunity to be involved in decision-making</td>
<td>Flat hierarchies positive - able to communicate to top management if necessary</td>
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</tbody>
</table>
- Knew a satisfied employee
- Corporate culture - flat hierarchy; willingness to cooperate on the part of management; contact with colleagues open and friendly