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***THE ESTABLISHMENT AND
DEVELOPMENT DIRECTIONS OF
CORPORATE ENVIRONMENTAL
MANAGEMENT***

***Case Studies in Finnish and
Italian Meat Processing Sector***

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Administration

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Satu Kristiina Rintanen

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1 BACKGROUND OF RESEARCH

1.1 The impetus of a not-so-dirty industry to engage in environmental management

The relationship between economic activities and the natural environment has attracted considerable attention in the past twenty years. The unilateral dependency has been evident for a long time: the natural environment is a central part of economic activities, forming an indispensable resource base and being the final recipient for waste. In the same way, the degradation of natural environment, as a consequence of its economic exploitation, has become beyond dispute, though business companies are naturally not held alone responsible for environmental problems. Many heads have turned to companies, with intentions to oblige or persuade them to clean their processes, and to develop environmentally benign products.

In response to these concerns, many business companies now claim that they strive to minimize their damaging effects on the natural environment, within possible limits. It appears that environmental criteria have gained importance in business decisions, and that environmental management has become, in many companies, a part of daily organizational activities. Making continual improvements might even be taken for granted. Environmental management is not anymore limited to large sized companies, or to remarkably polluting and resource depleting sectors.

The production cycle of a manufacturing company can be seen as an open system: there are input flows from and output flows to the natural environment. These flows are crucial for production processes, which aim to satisfy determined social needs. As an undesired effect, production processes cause environmental impact, the amount of which depends on the quantity of raw materials used, and on the technical, technological and organizational efficiency of activities.

This study aims to shed light on environmental concern and its practical manifestations in today's business world, by investigating empirically the environmental management of one Finnish and one Italian meat processing company. Meat processing sector has recently gained lots of unfavorable attention due to intensive production methods that can threaten food security.

Increasing interest in the traceability of products, and in the ethical aspects of production, including a responsible use of natural resources, the integrity of nature, farm animal welfare, and the use of reasonable criteria in the development of new production techniques, have directed the interest in the environmental approach of these companies. The food industry faces at least two important challenges connected to its environment approach: the first challenge is to ensure that modern agricultural and food technologies improve human and animal welfare; the second is the preservation of local and global environments.

This research is about corporate environmental management in the light of opinions, perceptions and experiences gained up to now by two industrial meat processing companies. The topic is of current interest because it is essential to follow the evolution of environmental concern and practices in order to understand, enhance, and direct any change concerning the interrelationship between business companies, other social actors, and the natural environment.

Environmental management is here defined as a set of corporate initiatives that aim at preventing, mitigating, or eliminating a company's impact on the natural environment. It consists of conventional managerial planning, implementation, control and correction activities.

Environmental management has frequently received different shades of meaning in business talk and in writing. Some writers have suggested the use of the concept "*ecological management*" instead of "*environmental*" in order to stress a higher importance assigned to environmental issues. Shrivastava's (1995b) "*ecocentric*" management is a well known example of such suggestions. Similarly, Hutchinson and Hutchinson (1996) have described environmental management as a practice that considers the natural environment just one strategic issue among others, while ecological management puts it in central position in all corporate operations. This is the difference, they write, but end up using the concepts interchangeably, which is the mainstream choice in management and organization literature, and adopted also in this research. Associating the label "*environmental*" with managerial principles and action that first and foremost emphasize business benefits (cost savings and market power) can sound questionable, and has been criticized. It has been claimed that concepts evoking ideas of environmentally benign performance, like "*environmental*", "*natural*", or "*green*" have been used gratuitously to underline insignificant improvements. In Miller's and Szekely's words (1995, 322):

"Label 'green' has been misused to describe any action, company, product, service and attitude that damages the environment relatively less than prevailing practices".

The question is, are companies greening, or just conducting business as usual, seasoned with environmental rhetoric? This research is drawn for a comprehensive understanding of environmental management, through the investigation of motives for environmental responsiveness, and the shape and the contents of environmental actions. Motives represent the state of environmental concern. The shape and the contents of actions describe initiatives to adapt and diffuse environmental concepts and practices in organizational behavior.

Environmental management is, strictly speaking, about the relationship between man and the natural environment, but the resolution of environmental problems has been firmly interlinked with economic and social factors (e.g. Ulhoi, Madsen & Hildebrandt 1996). To underline these interrelationships, the concept ecological has been given broader meanings: it has indicated an approach that goes beyond the natural environment. E.g. Stead and Stead (2000, 319) extend the meaning of ecological to a more ethical way of conceiving the relationship between a man and other men, and between man and the natural environment:

"It is important to note ... that the term, ecological, refers to the complex web of environmental, social, cultural, and economic factors related to sustaining a high quality of life on Earth; ...although ecological is often used as a synonym for the natural environment, it is actually a broader term that reflects all of the environmental, social, cultural and economic interconnections necessary to maintain a healthy relationship between humankind and the planet."

Currently environmental management is often connected to a vaster field of corporate social responsibility (CSR) and sustainable development¹. CSR is a concept whereby companies take voluntary initiatives in order to improve society, and to make the natural environment cleaner (see the European Union Commission's Green Paper, COM 2001 366 final). The natural environment is one interlinked dimension of CSR, together with such questions as territorial (or community) ties, production type, consumer trust, and social equity (e.g. female or immigrant labor). While keeping the focus of this study on the issues of environmental management, in the narrow sense of the term, it is recognized that the above-described interconnectedness cannot be ignored. Consequently, it is argued that environmental management issues cannot be

¹ The basic definition states that sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development 1987). The concept often includes social and economic dimension, like in Stead and Stead's definition (2000, 317): *"sustainability seeks to ensure a high quality of life for current and future generations of humans and non-humans by creating a synergistic balance between economic prosperity, ecosystem viability, and social justice"*.

treated comprehensively in isolation, separating them from their economic and social context.

This research builds on the assumption that every industry sector has, at least to some extent, different environmental priorities because processes and products are different. This study is conducted in a branch of food sector, namely the meat processing sector, which offers an interesting field for environmental management studies from many viewpoints. At the global level, the food sector is challenged by serious economic and ethical problems, concerning population growth and food production growth, as well as growing wealth and overconsumption in developed countries, and undernutrition in poor countries. The environmental impact of food production is strictly interlinked to these problems. At a macro level, in affluent societies, the food industry operates in an interesting and complex framework, where different needs and expectations meet. The food industry is expected to provide sufficient quantities of food products at reasonable prices, without causing any risk to human health. The sector is regulated in order to guarantee a minimum food product safety. Currently, such a level of welfare has been reached that foods can be chosen from a wide assortment on the basis of different preferences. The quality of foods has many dimensions, and subjective interpretations can give weight to different aspects. For many consumers, food products do not only provide necessary nutrients, but they affect directly well-being, and in some cases, they are perceived almost as medicines. At micro level, regulatory compliance constrains companies to take certain environmental measures, but companies can go beyond compliance, pursuing various market, cost efficiency or ethical responsibility-oriented objectives. The focus of this research is on the micro level environmental responsiveness, with relative drivers for and barriers to its development.

According to a widespread opinion, adopted by the most popular standardized environmental management systems (drawing from life cycle thinking; see e.g. Heiskanen 2000), a serious environmental approach should take into account the aspects relative to activities, products, and services that can be controlled by the company, and over which it can have an influence². The message is that corporate environmental management should transcend a

² According to life cycle thinking, a comprehensive approach to corporate environmental management includes the mitigation of negative impact in all production phases and in finished products, and introduces environmental criteria to the design of production facilities. This implies the introduction of environmental criterion in the choice of suppliers, energy and water saving clean processes, recycling of materials internal to the company, substitution of questionable materials, eco-packaging, and environmentally friendly transportations.

company's boundaries. However, it can be problematic to establish the limit of environmental responsibility³.

It seems quite common to associate the environmental problems of food production with the beginning of the chain, namely with intensive farming methods (cultivation and livestock breeding)⁴. In Europe, agricultural enterprises have become increasingly specialized, and their production methods standardized and refined (The European Food Information Council⁵). According to life cycle thinking, the environmental management of a food company should cover these relationships upstream the supply chain. Another potential way to interpret environmental problems in food sector is to view them as product quality and safety problems⁶, which in food companies have already been treated systematically for decades. The food industry has paid attention to the potential hazardousness of products, to preservation, and recently, to product purity and health functions. Under the present European Union food and health rules, food labels must contain the list of full ingredients. Food labels can contain quality certifications or certain claims about nutrition and health benefits to consumers. Current rules ban misleading advertising. However, food quality and safety improvements do not automatically guarantee environmentally friendlier solutions, since environmental considerations can be, and e.g. according to Dobers (1996) frequently are, separated from quality and safety questions, and because quality and security may lead to methods that even more manipulate the nature, which is certainly not in harmony with the preservation of biological diversity⁷.

This brief introduction shows that environmental management in food industry offers a fertile field of study. The present study aims to shed some light on environmental motives and actions of companies operating in the meat processing sector, drawing on an empirical investigation of two cases. A micro level analysis of environmental management might be criticized for its limited generalizability, but a strong counterargument is that the development

³ As Heiskanen (2000, 2) observes on the life cycle assessment (valid also for environmental management systems that follow a similar logic): "*Companies expend (relatively large sums of money on conducting LCAs – i.e. on finding out about environmental concerns elsewhere in the product chain, which they are not legally responsible for*".

⁴ Intensive methods, like selective breeding techniques, fertilizers, herbicides, pesticides and fungicides, aim at increasing the efficiency of food production by reducing costs and by increasing the variety of foods available.

⁵ <http://www.eufic.org>.

⁶ Recently, public debate on food quality and security, in the meat processing sector, has been inflamed by the crisis of the bovine spongiform encephalopathy (BSE), dangerous also to the human health. Animal diseases (especially if caused by productivity measures) and an excessive use of chemicals have fed distrust of the whole food industry, making the most pessimists now consider eating a potential threat.

⁷ This consideration refers obviously to genetically modified (GM) foods, though their supporters claim that biotechnologies in agriculture mitigate environmental degradation.

of single companies reflects broader change processes. The last-mentioned opinion is supported e.g. by Strannegård (2000, 165), who embeds business companies in their organization fields, which consist of key suppliers, resources, customers, regulatory agencies and other organizations that provide similar services or products (following the definition of Powell and DiMaggio 1983, 148), arguing that:

“...what happens in organizational fields is connected to what happens in particular companies. In organization fields a strengthening and multiplication of what happens in the individual organization occurs. Also, in the individual organization, what takes place in the organization field can be discerned”.

Consequently, the argument is that the study of few cases can enhance the understanding of the environmental approach of the whole organizational field.

1.2 Purpose of research and research questions

This research approaches corporate environmental management as a question of ethical responsibility and as profit-oriented activity.

The purpose of the research is to construct an empirically grounded interpretation of the establishment and development directions of corporate environmental management in meat processing sector.

The emerging interpretation will help to understand key concepts of corporate environmental management and their interrelationships. A dynamic use of the interpretation can, in this context, help to generate new conceptual suggestions. The managerial use of the emerging interpretation will help to assess the state of art of corporate environmental management. A dynamic use for managerial purposes can contribute to the improvement of environmental management in a way that generates also business benefits.

The purpose of the research is pursued through three steps: building of conceptual framework, acquisition of empirical data, and analysis of data, which has as its outcome the interpretative model. The conceptual framework includes four main standpoints that embody corporate environmental management: key environmental change agents in society, external agents that drive organizational change, internal motives for environmental actions, and feasible actions. Each standpoint raises different questions and issues regarding the phenomenon. Together they provide a more comprehensive discussion and analysis of the role and future of corporate environmental management. The research draws on a rather vast number of theoretical viewpoints, using well established theoretical resources to discuss each standpoint. The use of a large amount of conceptual resources is justified by the comprehensive approach to

the research phenomenon: it helps to avoid oversimplified answers. Theoretical resources shed light on the research phenomenon, as well as on the nature of theories that are applied to them. Conceptual analysis gives meaning to key concepts, supporting further data collection, analysis, and interpretation (e.g. Ghauri, Grönhaus & Kristianslund 1995; Hirsjärvi, Liikanen, Remes & Sajavaara 1988). Each concept has been assigned its place in the integrated interpretation in order to avoid a potential danger of conceptual confusion. The conceptual framework is built on the assumption that corporate environmental actions can be explained by tracing the motives that have encouraged a company to take them. There may be effective and potential drivers for and barriers to initiatives. The set of environmental actions as a whole includes managerial and operative actions that can be unilateral or multilateral.

Motives for corporate environmental actions have already been a subject of many researches. E.g. Bansal and Roth (2000) observe that several studies⁸ have suggested motives for corporate greening. Regulatory compliance, competitiveness, stakeholder pressure, ethical concern, critical events, and top management initiative are frequently listed as plausible motives. Bansal and Roth (2000) further argue that understanding motives for corporate environmental actions is important for at least two reasons: first, this understanding can assist organizational theorists to predict environmental actions, and to generate adequate theories; second, it can help to assess the relative efficacy of regulatory, market-based, and voluntary actions. The first reason corresponds to the purpose of this research, while the second goes largely beyond it, and, thus, its comprehensive treatment is left to other researchers. Each of the above-mentioned motives for environmental responsiveness has a role in this research: some of them are parts of conceptual framework as such, while others are included in different formulations of motives that fit the established framework.

This research examines factors that stimulate or obstruct corporate environmental management. The argument is that business companies still regard environmental issues narrowly as technical problems of efficient resource use, and believe that environmental management can be advantageous only thanks to the cost savings that it generates, according to the logic of doing more from less. A broader reconsideration of business activities does not take place because there are no real motives to do so, despite the widespread recognition that environmental degradation is a serious ecological and social problem, with negative consequences to the quality of life.

The research begins with the formulation of research questions, which have the task to establish and maintain the direction of the research process. They

⁸ See for more details the quoted article.

do not, however, tie excessively the shape of the interpretation because a certain degree of elasticity is useful in order to leave space to unexpected but interesting results, emerging in the course of the research process.

The research questions are formulated to represent what the researcher finds potentially problematic and, hence, worth investigating. They draw attention to the complexity and contextuality of research phenomenon, and to problems and concern that it can raise (cf. Stake 1995). There are two broad **research questions** that this dissertation seeks to answer:

- 1. What are the effective motives to integrate (not to integrate) environmental management into the activities of a business company operating in the meat processing sector, and why?**
- 2. How do environmental actions influence daily organizational life and long-term course of action?**

The main research questions are further cut into more detailed subquestions. The subquestions relative to the first main research question help to examine more closely different potential sources of motives. The subquestions relative to the second main research question help to distinguish different manifestations of environmental management in organizational activities.

The following four subquestions are relative to the first main research question:

- 1a. What is the attitude of corporate management to the key agents of environmental change in society, and why?**
- 1b. What external drivers or barriers influence the shape of corporate environmental approach, and why?**
- 1c. How willing and capable are corporate managers of fostering environmental management in their organization, and why?**
- 1d. How sensitive is the organization to environmental considerations? To what extent is the environmental approach based on ethical or profit-oriented motives?**

The following four subquestions are, in turn, relative to the second main research question:

- 2a. How important are environmental issues to organizational development and operational efficiency?**
- 2b. How do environmental considerations influence managerial work and operational activities?**
- 2c. What unilateral environmental measures has the company taken? How do they contribute to the improvement of environmental and business performance?**
- 2d. What multilateral environmental measures has the company taken? How do they contribute to the improvement of environmental and business performance?**

The first set of subquestions draws attention to potential external and internal drivers for or barriers to corporate environmental responsiveness. The first subquestion (1a.) investigates the general attitude of organizational management to the enhancement of environmental concern in society, and to change agents that could foster social change. The assumption is that such attitude predetermines corporate environmental responsiveness. The second subquestion (1b.) aims at revealing external forces that make companies adapt their environmental approaches. The assumption is that companies adapt to critical external requirements. The third subquestion (1c.) investigates the willingness and capability of managers to act as internal drivers for environmental responsiveness. The assumption is that environmental management is a question of managerial interest. The fourth subquestion (1d.) investigates the motives that a company regards as valid for environmental initiatives. The assumption is that ethical responsibility and profit expectations can drive or impede environmental responsiveness.

The second set of subquestions examines more in detail the nature and shape of environmental actions. The first subquestion (2a.) investigates the importance of environmental management to a company. The assumption is that it can have a strategic or an operational role. The second subquestion (2b.) investigates the diffusion of environmental considerations inside the organization. The assumption is that effective environmental management demands extensive organizational involvement. The third subquestion (2c.) seeks to build a picture of internal environmental actions and their relationships to conventional business activities. The assumption is that effective environmental management consists of real improvements and their valorization. The fourth subquestion (2d.) investigates organizational willingness and capability to establish external relationships for the improvement of environmental performance. The assumption is that external relationships offer new opportunities.

The main research questions and the subquestions are interconnected.

The essential points of the interconnectedness must be cleared up in order to complete the answers to the research questions.

The assumption is that motives explain action, though connections may be multiple and complex. Motives are derived from individual and collective values, beliefs, and goals⁹.

⁹ In the organizational culture literature, verbal, physical and behavioral artifacts are frequently explained by values, beliefs, and unconscious basic assumptions (e.g. Schein 1985a, 1985b; Dyer 1985; Kilmann et al. 1985). In the strategic management literature, organizations are usually seen as purposeful entities that act in pursuit of individual and collective goals (e.g. Milgrom & Roberts 1992).

1.3 Key concepts

Corporate environmental management will be investigated, analyzed and interpreted with the help of authoritative theoretical approaches to questions relative to it. Research questions focus on four conceptual fields of corporate environmental management, which are the pillars of the conceptual framework. Each concept adds an important part to the understanding of environmental management in today's business companies. The figure 1.1 (on the next page) illustrates the four key concepts, their interconnections and their relevance to the analysis of research questions.

The first key concept concerns the *key agents of environmental change in society*. According to a "*public vision*", governments and social groupings are the key actors of environmental change in society. The opposite "*corporate vision*" emphasizes the role of business companies as drivers by recourse to technology, production, and marketing. "*Multilateral visions*" suggest that integrated, mutually reinforcing, and synergic actions are needed in order to start a change. It would imply the participation of all key social actors. These theoretical viewpoints can contribute to the understanding of the role that companies perceive to have in the resolution of environmental problems. Moreover, they can be used to investigate what companies expect from other social actors.

The second concept concerns *change forces* that can lead to environmental change in business organizations. The focus is on the willingness, on the capacity, and on the necessity of business organizations to change their activities. As the relevant literature shows, strategic change has been explained by *external determinist forces* or by *voluntary choices* of strategic actors. Current opinion is that both external determinist forces and voluntary choice can drive organizational change. Various adaptation, feedback, and interaction effects may interlink external and internal change forces. These theoretical viewpoints offer a framework for the interpretation of forces that influence the corporate environmental approach.

The third key concept of this research concerns *motives* for corporate environmental actions. Business organizations' basic, and according to Milton Friedman (1982) and followers, unique task is to generate profit, operating within legality, while any ulterior duty would compromise their efficiency. In this view, profit would be the only motive for environmental responsiveness. Another view, promoted currently by the institutions of European Union (see e.g. the European Union Commission's Green Paper, COM 2001 366 final), is that business companies can contribute to the achievement of social objectives while pursuing profit. Ethical responsibility is seen as being a valid reason for environmental responsiveness.

CORPORATE ENVIRONMENTAL MANAGEMENT

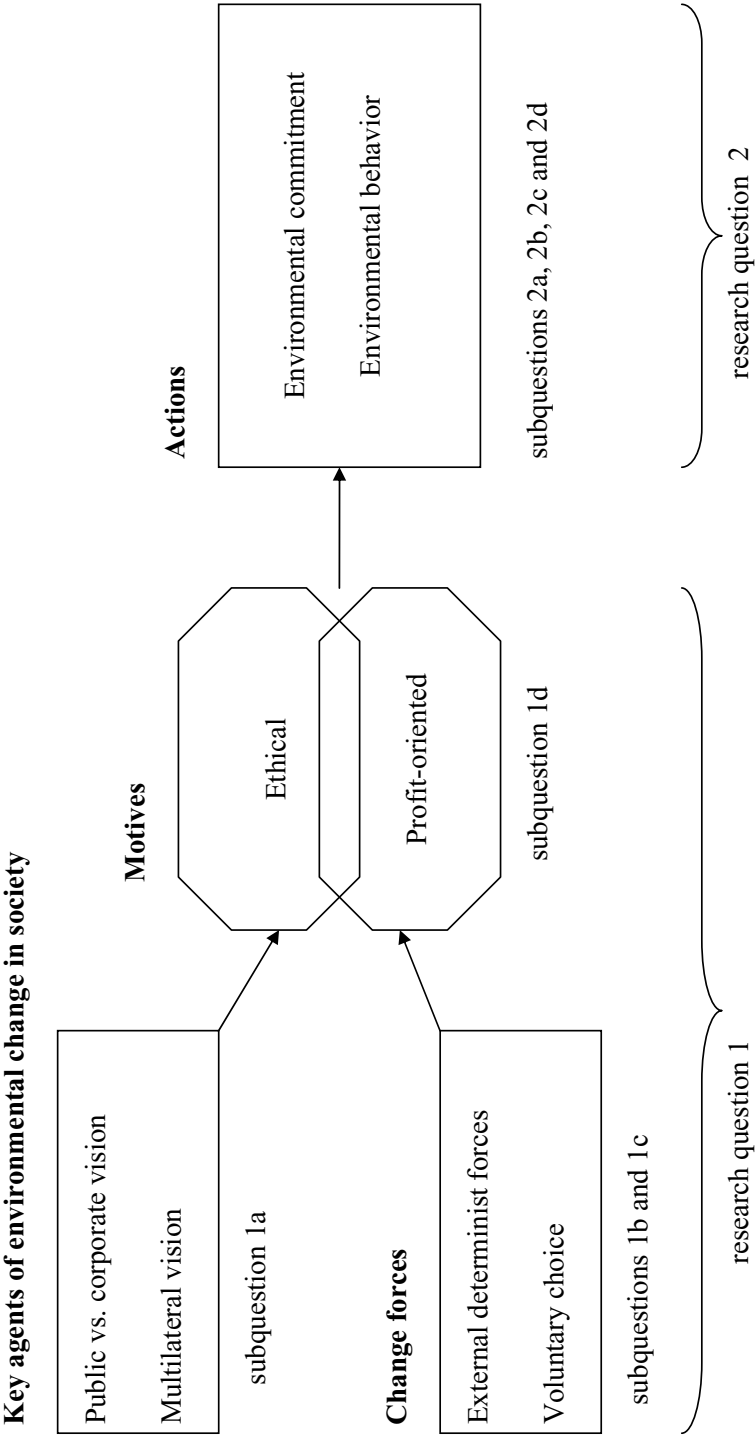


Figure 1.1: Main concepts of research framework and their relevance to research questions

In the *ethical* approach, equity and the sense of responsibility play the major role. Trevino (1986) sustains that ethical issues are an intrinsic part of organizational life, characterized by uncertain conditions where multiple stakeholders, interests, and values are in conflict. Caselli (1998) shares the same opinion, claiming that moral dimension is peculiar to human action, and sustaining that therefore ethics and social responsibility are basic elements of corporate activities. Schurer Lambert (2000) adds two more arguments in support of ethical approach, sustaining that the ethical component of managerial decisions¹⁰ must not be ignored because managers' individual and collective interpretations of external environment are influenced by their sense of ethical values, and because the pursuit of organizational goals may have ethical consequences to organizational stakeholders.

Environmental activities can make economic sense to business companies, and therefore be motivated by profit and growth previsions. *Profit-oriented* motives would be remarkably selfish by their nature, since environmental actions would be a means to gain business benefit, tangible or intangible, immediate or in long term. Profit-oriented actions could typically aim to foster sales or lower costs, but their objective could be, as well, to avoid present or imminent social conflicts, which could threaten the profitability and even the survival of the company.

Drawing on the above-mentioned two mutually not exclusive motive bases allows looking corporate environmental approach beneath the surface.

The final part of conceptual work deals with the *actions* of environmental management. Conceptual specifications of strategic and operational issues, and descriptions of managerial and organizational involvement are used to interpret corporate *environmental commitment*. Conceptual specifications of environmental actions are used to describe *environmental behavior*, i.e. to indicate how widely environmental concepts and practices are adopted and diffused in the organization. Environmental actions can be unilateral or multi-lateral. Unilateral measures include management tools, communication tools, and clean technological and technical measures. Multilateral measures include initiatives that involve external stakeholders in collaborative relationships, or demand the acceptability of actions from the part of determined external stakeholders. These classifications are used to analyze the nature of actions.

¹⁰ The author refers particularly to environmental decisions.

1.4 Environmental management research field

1.4.1 Research interest in environmental motives and actions

Environmental management has attracted a lot of academic interest and continues to do so because it evolves all the time, and no universally decisive solutions have been discovered. Thus, environmental management is an issue of current interest. Earlier research has shed light on numerous critical aspects concerning it, and forms a valuable knowledge base to new research projects.

This section casts a quick glance at environmental research work done in organization and management sciences, and pays particular attention to the research that concerns motives and action¹¹. This overview, though remaining a hasty account of the interest of management scientists (a more complete research history would require an entire volume or two), shows some development directions of environmental management studies. It is useful for the understanding of the place of this research in the stream of studies on this topic.

In organizational and management studies, early considerations of environmental issues were rather negative. The mainstream opinion was that they are a threat and a repressive limit to the capacity of companies to operate efficiently. In this negative sense, environmental management was associated with metaphors like *“barrier”*, *“limit”* or *“green wall”*. In the 1990’s, the main environmental topic in organizational and management research became environmental competitiveness (see e.g. Hart 1995; Shrivastava 1996). Enthusiastic visions about contemporaneous benefits to business companies and to the natural environment emerged, and the metaphorical definitions changed their tone from negative to positive: labels like *“green challenge”* became popular, and companies were invited to seize *“win win”* opportunities, i.e. to become *“green and competitive”* (e.g. Porter & Van Der Linde 1995). Environmental responsibility was welcomed as a new panacea that could revitalize the competitive arena: the elimination of unnecessary energy consumption and waste would generate cost savings, and a skilful management of environmental issues would differentiate products, elevating the company from the gray mass of competitors. Value chain strategies have been recommended for the creation of contemporary benefits to companies and the environment.

¹¹ Environmental problems and their handling in business organizations have interested financial, marketing, as well as management and organization studies that have tried to highlight, from the proper viewpoint, what environmental preservation actually means for a business organization, and how it could be beneficial, or at least make least trouble.

Moreover, it has been assured that the help of environmental partners in the design of effective solutions is irreplaceable (see e.g. Roome 1994; Hartman & Stafford 1998). Of course, there have also been discordant notes in the chorus of environmental researchers. In fact, contemporary business and environmental benefits have not been unanimously accepted. Many complexities and difficulties relative to the efforts to increase profitability by means of environmental initiatives have been encountered (e.g. Walley & Whitehead 1994). In the meantime, environmental management became facilitated by the development of auxiliary tools: environmental audits, management systems (EMAS¹²; ISO 14001¹³) and life cycle assessments (LCA) started to gain footing in business companies. They have been introduced as tools of efficient environmental decision-making, and as valuable competitive assets. Their implementation has been examined in numerous managerial and organizational studies, which have highlighted a series of advantages and difficulties (e.g. Boiral & Sala 1998). Their contents have also been criticized, and their value as real environmental improvement tools questioned.

Regulatory compliance, cost savings and marketing opportunities were the main drivers for corporate environmental initiatives identified by competitively-oriented studies (see e.g. Corbett & Van Wassenhove 1992). Drivers based on business benefits had constantly put into shade research on ethical drivers. Cafaro (2001) points out that there are few writings that associate positive ethical arguments, like joy and fulfilment, with environmentally more conscious existence. This marginal position of ethics derives plausibly from the opinion that such ethical side is missing. E.g. Linnanen (1995) claimed that environmental actions in business companies rarely start from ethical considerations, and some other empirical studies have supported this opinion (e.g. Fineman 1996; 1997; 1998; Bansal & Roth 2000; Crane 2000). The importance of ethical foundations to durable and tangible environmental improvements has been for long emphasized by “*deep ecologists*”, which have followed the ideas of such classical green activists as Leopold (1968) and Carson (1962). However, such ecocentric values have not found their equivalent in business world. Ethical discourses have been often settled by the argument that corporate environmental ethics is, at its best, a response to the expectations of stakeholders and, hence, it is of instrumental nature.

Recently, corporate social responsibility (CSR) has drawn increasing attention (see e.g. Panapanaan et al. 2001). Environmental responsibility is one of

¹² Council Regulation 93/1936/EEC on Eco-Management and Audit Scheme (EMAS).

¹³ ISO – International Organization for Standardization - is a network of the national standards institutes of 148 countries, on the basis of one member per country. A Central Secretariat that coordinates the system is situated in Geneva, Switzerland (<http://www.iso.ch/iso/en>).

its key dimensions, though it is not central in all contexts that the concept is used. CSR is by no means a new argument (it has previously interested especially big multinational companies), though it is now fitted to certain social problems of great current interest. CSR is recommended to business companies that are willing to improve their adaptation to external environment, maximize internal efficiency, and pursue public interest. The supporters of CSR claim that moral standards set to business companies are growing, and therefore the adaptation to external environment demands major attention to social acceptability. In the second case, ethical is associated with efficient. In the case of public interest, CSR is introduced as a means to enhance social inclusion, and to maintain social cohesion. Companies are called to invest more in human capital, in relationships to their business partners, and in the natural environment (see the European Union Commission's Green Paper, COM 2001 366 final). Critics have pointed out that social responsibility is but rhetoric persuasion behind an attempt to assign the functions of public administration to business companies. Others sustain that ethical and social choices are strictly tied to the way business is conducted, but the prevalence of profit maximization and convenience, achieved by technological and commercial means, have depersonalized and eradicated business from its local context, making the meaning of ethics banal.

Institutional approach to corporate environmental management has become quite popular approach during the recent years. The study of Halme (1996) on the emergence of new environmental management paradigms, and the study of Strannegård (2000) on the development of environmental concern in one Swedish manufacturing company are two examples of institutional approaches applied to empirical case studies. Jennings and Zandbergen (1995) have argued that institutional theories are useful for the understanding of how sustainability concepts get commonly shared meanings, and how these concepts and relative practices are developed and diffused among organizations. The significance given to the concept of the institutionalization of environmentalism is usually very similar to the meanings of concepts like normalization and routinization.

This study treats environmental management as a question of ethical responsibility and economic viability. The approach would be suitable also for broader CSR studies. This research draws on an extensive theoretical base, which covers many issues of business ethics and strategic management. It uses insights learned from a number of earlier proposed models, which either concern corporate environmental management as a whole, or focus on some of its aspects. The research contributes to the debate on the development of environmental concern and feasible pragmatic solutions.

1.4.2 Interpreting models of corporate environmental management

Since corporate environmental management has started to evoke interest, several models to describe, understand and predict environmental responsiveness have been proposed. At the early 1990's began the era of stage models, labeled also sequential or linear models (see e. g. the models proposed by: Hunt & Auster 1990; James 1992; Corbett & Van Wassenhove 1992; Azzone & Bertelè 1992). They put companies in pigeonholes in function of a set of internal organizational variables, and a set of external conditions. Stage models have many analogies with Ansoff's (1984) "*strategic posture analysis*", which determines a strategy that responds adequately to external pressures. The models determine different stages of greening, which can be used in two ways. First, different business organizations can be put in order for comparative purposes, by placing each of them in a stage that best describes its environmental approach. Second, the stages of greening can be understood as different consequential phases of a greening process of a single company. Various stages indicate a gradually increasing, cumulative, or non-cumulative organizational commitment to environmental improvement.

The conceptual value of stage models is unquestionable, but they often fail to describe or predict a company's greening efforts, which hardly follow a rigid scheme of gradual improvements. This conclusion has been drawn e.g. by Schaefer and Harvey (1998, 109-123), on the bases of their study of four cases in the UK water and electricity industries. Their research results suggest that the environmental strategy and management of their target companies "*fit poorly into the stage models of corporate greening*"¹⁴. The same conclusion was drawn by the author of the present research in a previous case study (Rintanen 1999), which examined the environmental approaches of four food companies, and used as one analysis technique the comparison of cases with the help of Corbett and Van Wassenhove's (1992) environmental strategy classification.

Anything but confirmatory results have been obtained also from some empirical studies that have focused on a particular character (variable) of stage models, with the aim to verify the behavior of the character. An example is a study of Henriques and Sadorsky (1999) that focused on environmental stakeholder relationships. The purpose of the study was to find out whether firms with a high formal environmental commitment perceive the importance of various stakeholders to their environmental practices differently from companies with a lower formal commitment.

¹⁴ Schaefer and Harvey studied the empirical suitability of models designed by Hunt and Auster (1990) and Roome (1992).

These empirical experiences provide evidence against the assumption of incremental and linear change. The argument is that it is too simplistic to expect that external conditions develop constantly and gradually in a predetermined direction, and that firms progressively adapt themselves to a new situation. The conclusion is that stage models do not take sufficiently into account the discontinuous, non-linear and interrelated way that various mediating and moderating factors influence corporate strategies (see e.g. Ghobadian et al. 1998). Factors may emerge that slow down the progress, or even such drawbacks may occur that invert the direction of greening process. Examples of critical drawbacks are corporate downsizing, financial control, or the introduction of an incongruent management paradigm (see Shelton & Shopley 1996).

Ghobadian et al. (1998) have criticized particularly the assumption of continuous improvement that characterizes stage models. Although some stage models admit that the moving backwards is possible, they fail to recognize that companies may as well jump from one position to another, as a response to changes in various behavior affecting factors (Ghobadian et al. 1998). Hence, not only incremental, but also radical change is possible. Ghobadian et al. argued also against the assumption of the linearity of responses. They doubted especially that the sense of environmental responsibility would gradually increase. Ghobadian et al. have identified three positions that clearly deviate from the assumption that environmental ethical responsibility increases along with new environmental initiatives. These non-linear positions are titled: restrained, speculative, and conditional commitment. Restrained commitment means minimum efforts because there is no real reason to act. There is no organizational or individual driving force that would trigger action, and therefore the company does not lift a finger. Speculative commitment refers to environmental improvements that actually are only cosmetic tricks without substance. Conditional commitment is defined as pragmatic, since it is not built on ethical bases, but consists of mere efforts to adapt the company to local external circumstances (Ghobadian et al. 1998). Common to all these forms of pseudo commitment is that organizations do not think green, but in case of need, they act as if they did. Environmental ethical responsibility is in these cases clearly used for instrumental (profit) purposes.

The failures of stage models have inevitably shifted the interest of scholars in the development of non-linear, more interpretive models. Several researches, like e.g. Schaefer and Harvey (1998), have argued for the adequacy of contextual and process-oriented models for the explanation of organizational greening. These models would be more capable of interpreting the change that companies undergo. Some of such models are analytical inductions from existing managerial theorizing, and not all of them have been empirically tested. Other models have been derived from empirical research data.

The remaining part of this section is dedicated to the illustration of four non-linear models of corporate environmental management. The models (published in authoritative international journals) are described and briefly commented. They represent recent contributions of management scientists to the debate on environmental management. They are, thus, potential sources of incisive concepts or relationships, which can be used and validated in this research. Their contribution will be discussed together with the results of this research (section 8.1).

The authors of the first model are Ghobadian, Viney, Liu and James (1998), which have presented their work under the article title: *“Extending linear approaches to mapping corporate environmental behavior”*. Their model is based on the empirical findings that the same authors had gathered in a previously conducted survey study (Ghobadian & Viney & Liu & James 1995). These findings suggest that companies might well assume environmental strategy positions that do not suit profiles typically proposed by stage models. The conclusion was the addition of three non-linear positions, which were titled: restrained, speculative, and conditional commitment. The contents of these positions have already been described earlier in this section. It remains to be examined how the key factors identified by the authors influence the development of corporate environmental strategies. Ghobadian et al. claim that stage models do not take these key factors and their dynamic relationships adequately into account.

The model designed by Ghobadian et al. (figure 1.2 on the next page) defines environmental strategies as fruits of dynamic interrelationships between a set of external and internal influences and constraints. External factors (market behaviour, legal and regulatory measures, and perceived social expectations) affect a company's environmental strategy to an extent that is determined by internal mediating and moderating factors. External factors are treated as given dynamic conditions where a company operates. Mediating factors form the interpretive framework: they determine how a company will respond, i.e. in the first place, whether or not any environmental action will take place. Leadership, corporate tradition, and corporate ethics dictate the response. The model substantially argues that environmentally-oriented leadership style (for such deep rooted reasons as environmental concern, or for less stable reasons like rewards), past experiences, and attention to the ethical consequences of performance are the main drivers for environmental responsiveness. A key role is given to leadership, which has the power to challenge corporate traditions instead of maintaining the existing ways of operating. Moderating factors are defined as practical managerial assessments of the availability of capital, human resources, and technology, and of organizational

adaptability, opportunity, and cost effect. Ghobadian et al. (1998, 19) argue that:

“...environmental strategy is the product of business influences, industrial contingences, and the rewards that a company can expect to achieve by executing a specific environmental strategy.”

Their empirical evidence suggests that profit motives prevail over ethical motives.

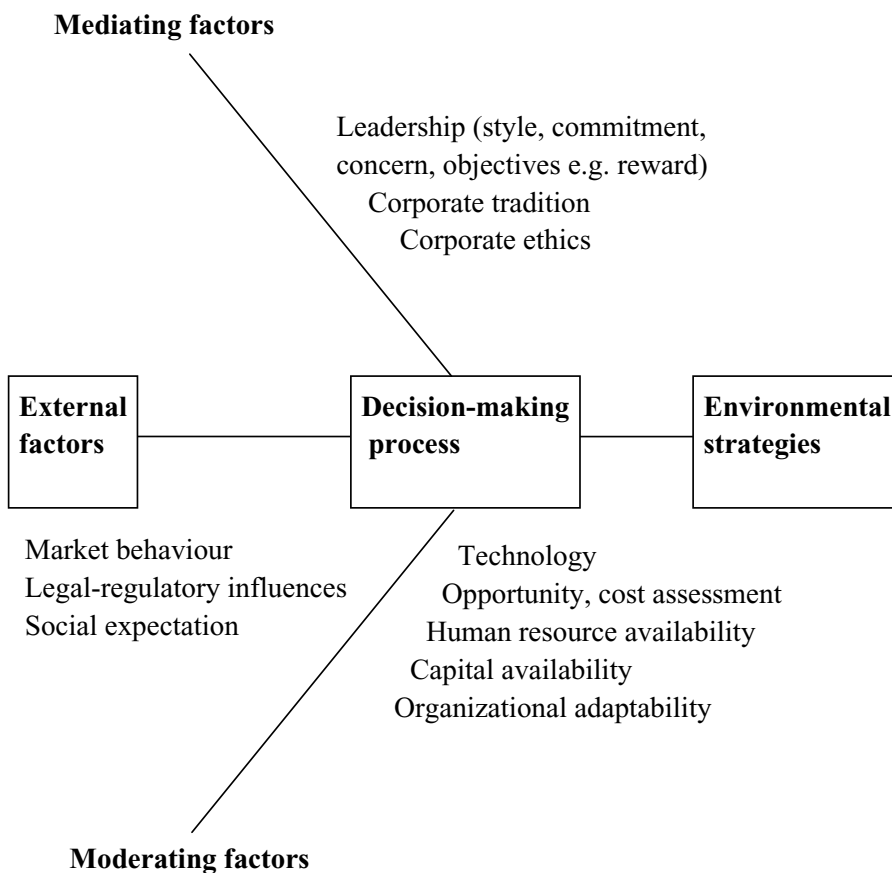


Figure 1.2: Interaction of external, mediating and moderating factors. Source: Ghobadian et al. 1998, 17

The second model aims at providing an advanced interpretation of reasons for corporate environmental initiatives. The last-mentioned are defined as actions directed to the mitigation of a company's impact on the natural environment (Bansal & Roth 2000). Bansal and Roth began their work with a preliminary model, built on the basis of literature visited. The preliminary model

suggested that the following drivers influenced corporate environmental responsiveness: legislation, stakeholder pressures, economic opportunities, and ethical motives.

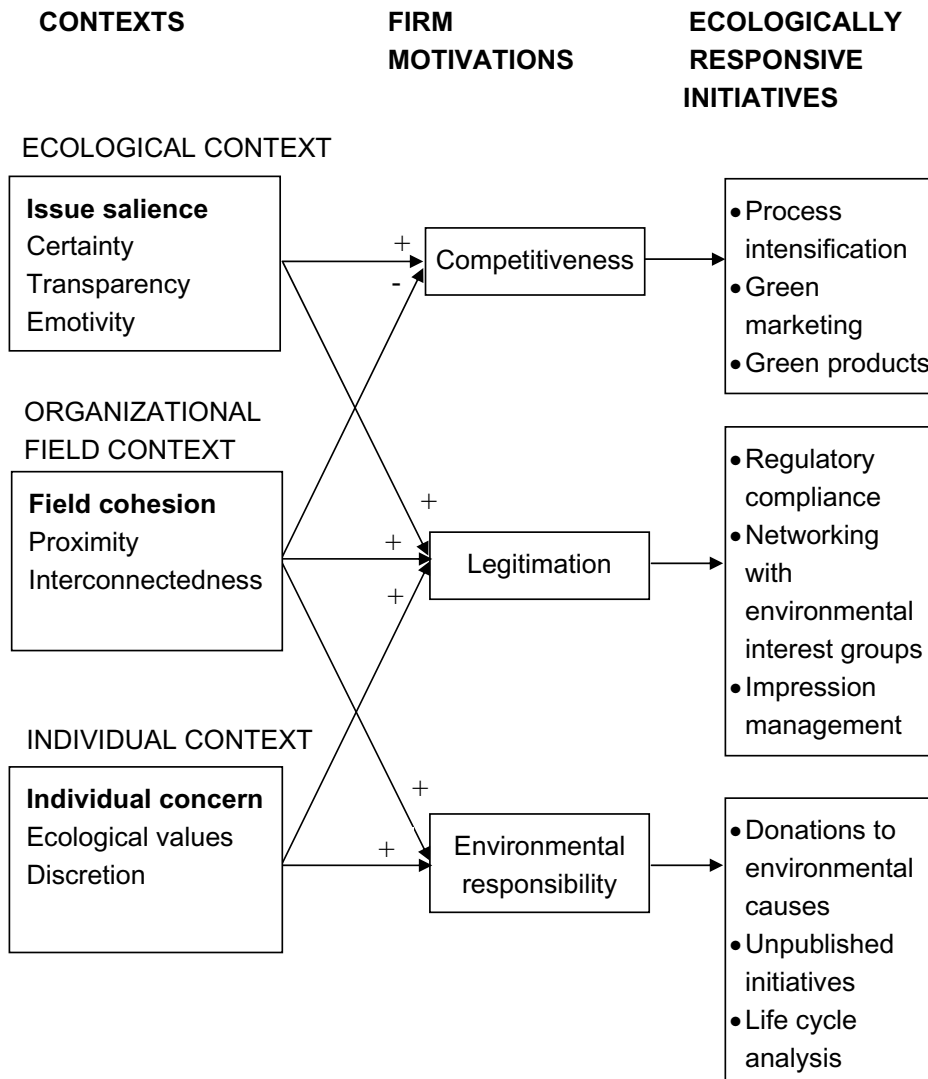


Figure 1.3: An advanced model of corporate ecological responsiveness. Source: Bansal & Roth 2000, 729

Like the model of Ghobadian et al. this model, too, is grounded in empirical data. More precisely, it applies the method of analytic induction, which challenges hypotheses derived from existing theories. The authors examined their empirical data in order to identify a set of environmental

responses, and classified the data in function of internal motivations and external contexts that had led to the implementation of determined responses. The model, thus, explains what are the underlying contexts (key external behavior affecting factors) that generate within companies determinate motivations to act, and what are the context-motivation paths leading to specific actions (fig. 1.3 on the previous page)¹⁵.

In their empirical research, Bansal and Roth identified three types of motivations for corporate ecological responsiveness, which they defined as mutually not exclusive and usually mixed: competitiveness, legitimation, and ecological responsibility. The authors distinguished these particular motivations e.g. by ends, means, and strategic posture defined by a company. According to Bansal and Roth, three types of contextual factors influence these motivations: issue salience, field cohesion, and individual concern. Issue salience is defined as “*the extent to which a specific ecological issue has meaning for organizational constituents*” (Bansal & Roth 2000, 730). It is a function of the knowledge of the issue (certainty), the imputability of the damage (transparency), and public concern (emotivity). The authors argue that issue salience fosters competitive and legitimation motivations. Field cohesion characterizes the industry sector in which the company operates. It is a function of the number and intensity of networks in the sector, among and between companies and their interest groups. High field cohesion is, according to this interpretation, a factor that enhances legitimation and responsibility motivations, but reduces the importance of competitive motives. Finally, individual concern is a characteristic of organizational members. It is an outcome of environmental values and the power to act in accordance with them. The argument is that when environmental values are strong and decisive power high, individual concern fosters legitimation and environmental responsibility motivations.

The third model is an integrated framework, produced by putting together and by expanding upon two previously separately developed models: the first is a strategic issue diagnosis proposed by Dutton and Duncan (1987); the second is an evaluation of the ethical component in decision-making, proposed by Jones (1991). These two models have already been integrated in an earlier work carried out by Ilinitich and Wicks (1996). The revised and extended integrated version here illustrated is developed by Schurer Lambert. She intended to use it as a framework in an empirical study concerning manage-

¹⁵ Impression management (Goffman, Erving 1922-1982) refers to the control of the signals one “gives” (consciously, directly) and “gives off” (unconsciously, indirectly) to one’s audience (source: <http://www.anthrobase.com>).

ment's perceptions of the strategic and ethical importance of an environmental issue, namely water shortage (fig. 1.4).

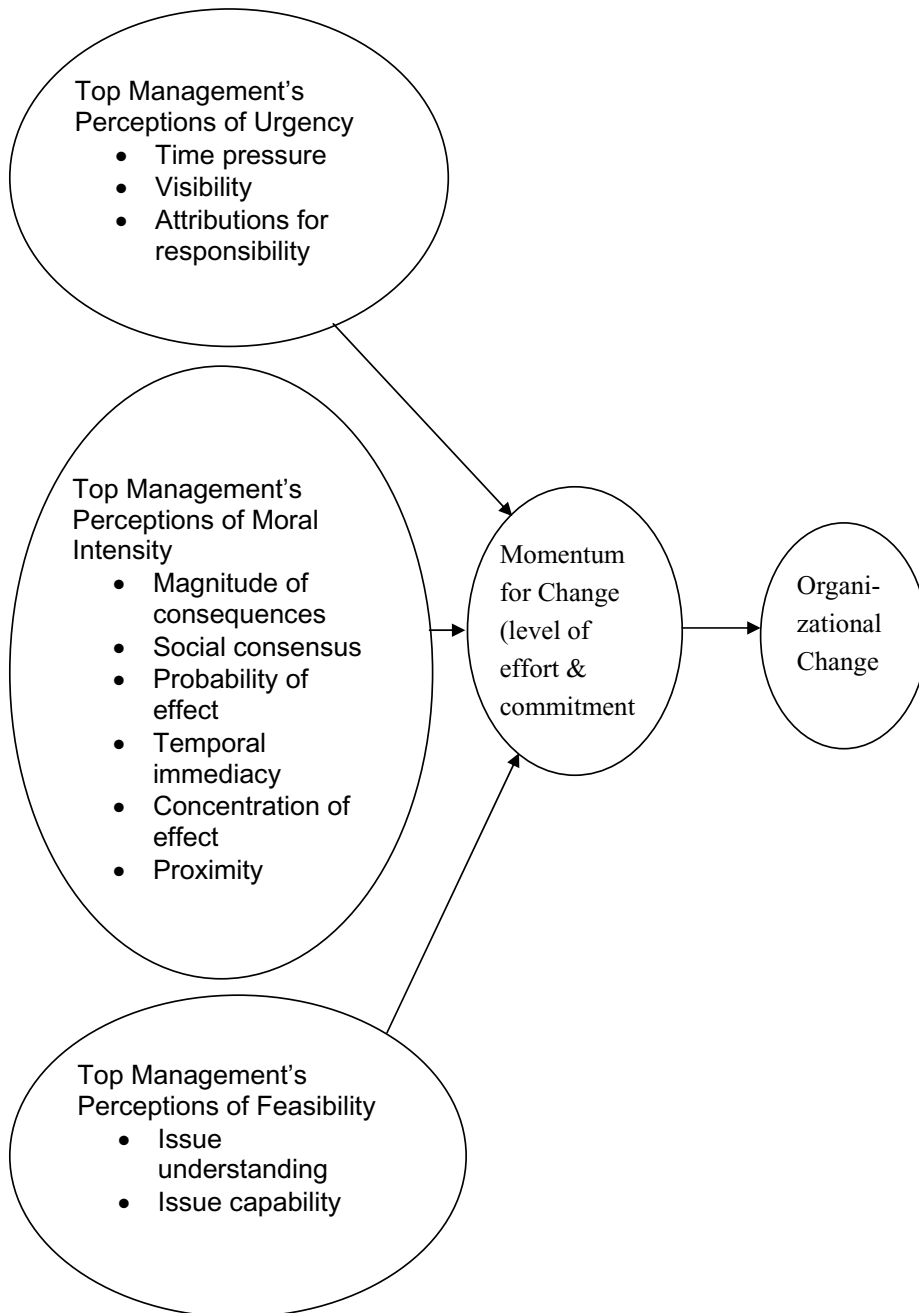


Figure 1.4: Integrated model of ethics and strategic issue diagnosis. Source: Schurer Lambert 2000, 325

The model is built to explain why a particular environmental issue attracts managerial attention. To accomplish this purpose, it focuses on a manager's perceptions of the urgency, the feasibility, and the moral intensity of the issue. Urgency is determined by time pressure, the visibility of the issue, and the responsibility of the firm. It seems to be strictly tied to the legitimation of a company's activities. When the issue is feasible, it is understood, and the company perceives that it is capable of resolving the problem. A high moral intensity means that significant, widely acknowledged, temporally and spatially proximate harm is regarded as probable. Perceptions of high urgency, feasibility, and moral intensity lead to higher levels of momentum for change, which, in turn, are defined as management's effort and commitment to implement organizational change.

The model is obviously issue-contingent, and based on the characteristics of environmental issues as managers perceive and interpret them. It aims to explain responses to specific environmental issues, but it is not suitable for the analysis of corporate environmental management as a whole. Since it focuses on the attributes of an issue, it ignores goals (economic or social) that a company pursues by environmental responses. Though profit-oriented pressures are not explicitly included in the model, they are incorporated in the concept of moral intensity: the author claims that ethical behavior may improve a firm's competitive position thanks to the establishment of cooperative relationships to various stakeholders, and to the improvement of firm's reputation. According to Schruer Lambert, it is important to include the ethical side of decision-making in strategic models for three reasons: first, the ethical values of management will affect decision-making; second, a firm is accountable for its actions to its stakeholders; third, a firm may improve its competitive position by ethical decisions. The last two motivations emphasize the instrumental nature of ethics.

The fourth model aims at understanding the diversity of factors that influence the decisions of managers as they encounter environmentally sensitive dilemmas. The model of Flannery and May (2000) is an adaptation and extension of Ajzen's (1991) theory of planned behavior (which sustains that intentions predict behavior), and Jones's (1991) construct of moral intensity (already applied in the above-illustrated model). Flannery and May sustain that ethical decision-making is simultaneously influenced by individual, situational and issue-contingent forces (see also Trevino 1986), and build their research framework accordingly (fig.1.5 on the next page).

According to Flannery and May (following Jones, 1991), a decision is ethical if the issue has consequences to others, and if the decision-maker has volitional control over the decision. Flannery and May have built their model in order to examine empirically factors that affect a manager's environmental

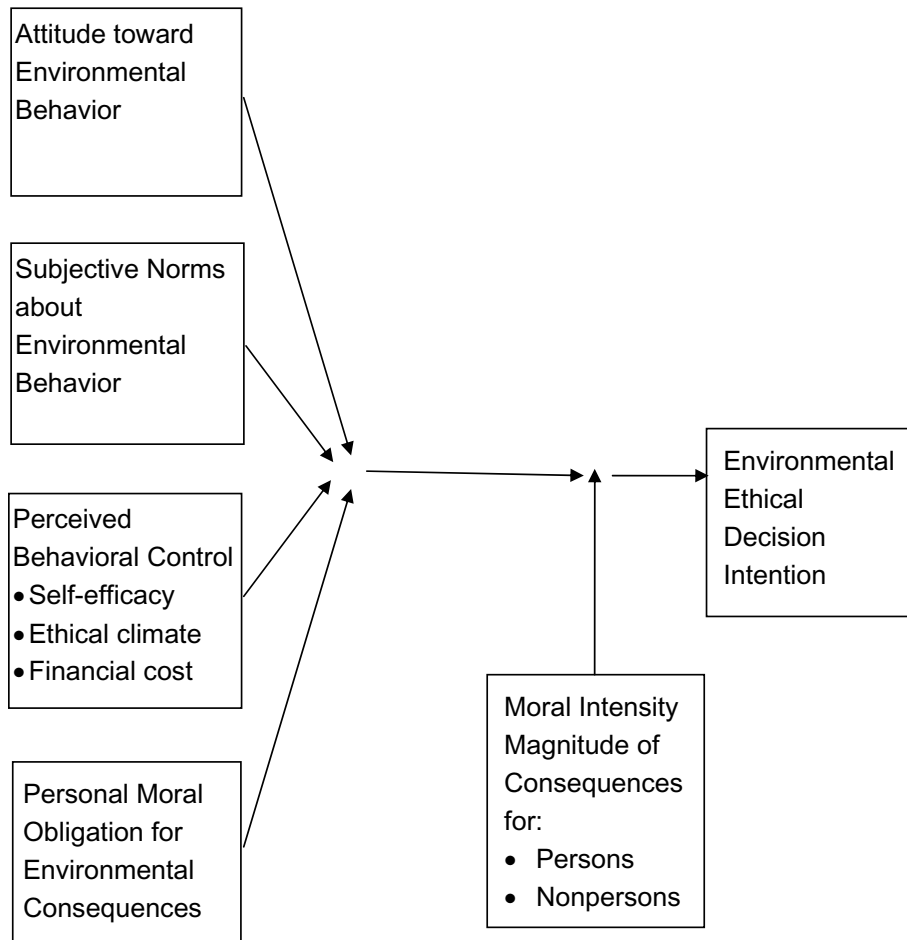


Figure 1.5: Factors influencing environmental ethical decision-making. Source: Flannery & May 2000, 644

ethical decision intention concerning the treatment of hazardous wastewater. The model connects attitudes to environmental behavior, personal moral obligation (a concept near to environmental values, according to Flannery and May), and perceived self-efficacy (knowledge and skills to resolve a problem) to managers as individual decision-makers. It suggests that the ethical climate of organization and financial costs relative to the issue are the main situational effectors, together with the social influence of important others, i.e. self-selected referents, whose approval is sought (subjective norms). The moral intensity (or more precisely, one of its attributes: the magnitude of consequence) of a specific environmental issue is treated in the model as an ultimate moderator or driver of decision intentions. The empirical application of the

model suggest that attitude, subjective norms, and costs contribute significantly, and ethical climate marginally, to the explanation of the variance in decision intentions. The findings further suggest that self-efficacy and personal moral obligation do not have significant effect, while the magnitude of consequences has a significant moderating effect between each antecedent factor and environmental ethical decision intentions.

1.5 Outline of research

The structure of the research is illustrated in figure 1.6, on the next page.

Chapter one has introduced the research phenomenon: corporate environmental management as a function of motives and actions. The introductory chapter has also presented the field of application of conceptual framework, namely the meat processing sector. The chapter has told the reader what he or she can expect from this work, defining the purpose of research, and formulating a set of questions that will be answered. The first chapter has introduced the key concepts in order to account for the conceptual argumentation that will be connected to the research phenomenon. The introductory chapter has finally presented a brief review of the mainstream research work on corporate environmental management. This review can be used for two purposes. First, it has highlighted interesting concepts and conceptual relationships that other scholars have built, and which can be compared to the results of this research. Second, it helps to place this research in a wider corporate environmental management research field.

Chapter two contains the conceptual framework. It discusses the four key concepts introduced in chapter one, connecting them to different theoretical argumentations. This chapter determines the structure of the presentation of research findings, and the form of analysis and conclusions.

Chapter three contains methodological commitments and choices. It starts with the definition of general scientific approach, and proceeds to the description of research methods under the following topics: the choice of case companies, the presentation of case companies, the levels of analysis, and finally, data collection and analysis methods. The interview question scheme can be found in appendix 1. It contains a list of interview topics and subtopics, and a scheme that illustrates the connection of interview questions to research questions.

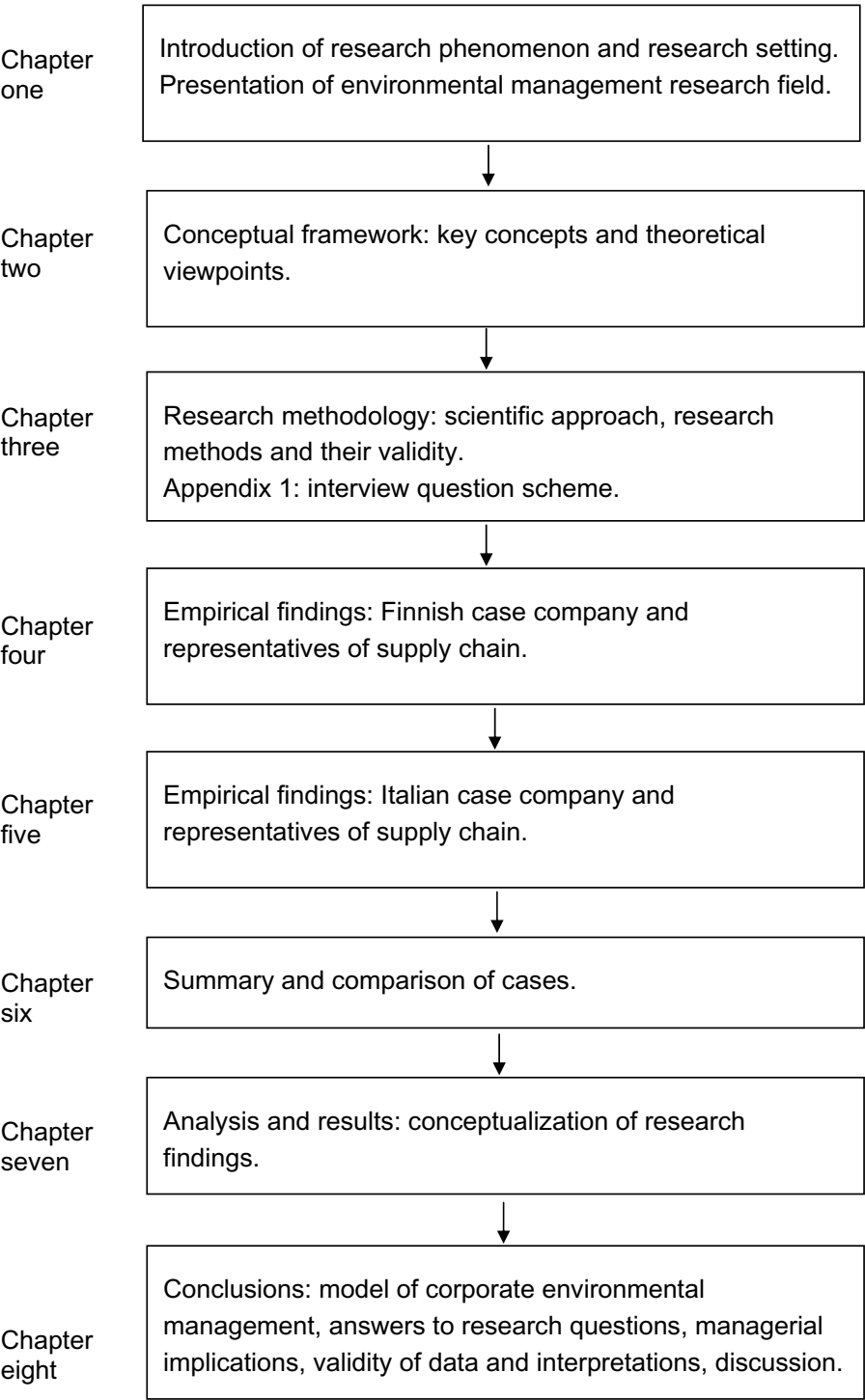


Figure 1.6: Structure of research

Chapters four and five contain the descriptions of empirical findings. Chapter four presents the data collected from the Finnish case company and chapter five correspondingly the data collected from the Italian case company. These chapters classify and combine data collected from different sources (interviews and documents), and organize them according to the conceptual structure. Integrative data collected from some external stakeholders (meat supplier, retail trade) are reported in the final sections of the two chapters.

Chapter six is a summary of key findings. It confronts the data reported in the chapter four with the data presented in the chapter five.

Chapter seven contains the analysis of the findings, and results achieved from their interpretation. In this chapter, empirical findings are connected to the conceptual framework, which gives meaning to their interpretation.

Chapter eight contains conceptual and managerial conclusions drawn from the data. Section 8.1 presents an inductive model of corporate environmental management in meat processing sector, and confronts the emerged model with previous models suggested by other scholars (section 1.4). Section 8.2 provides answers to research questions formulated in chapter one (section 1.2). The chapter continues with managerial implications and the assessment of the validity of data and interpretations. The chapter finishes with discussion about the future development of environmental management concepts and managerial challenges.

2 CONCEPTUAL FRAMEWORK

2.1 Key agents of environmental change in society

2.1.1 Public vs. corporate vision

Public and corporate visions represent contrasting opinions about environmental initiative desired by and expected from business companies. They draft different solutions to problems relative to the way that collective good should be pursued. As Midttun (2002) argues, the question is, to what extent societal concerns can be met by political regulatory intervention, and to what extent they can be met by market endogenous self-regulation or corporate responsibility. Public vision emphasizes the role of governments and social groupings as the key agents of change. Business companies are, in this scenario, controlled by behavior inhibiting (legislative) or incentive creating (economic) means (e.g. Ulhoi, Madsen & Hildebrandt, 1996). As an alternative, the corporate vision emphasizes ecological sustainability driven by companies through technology, production, and marketing. The supporters of public intervention sustain, particularly, that a radical change is needed for the achievement of environmental sustainability (see e.g. Rossi, Szejnwald Brown & Baas, 2000).

The debate around public and corporate visions has its roots in the traditional distinction between planned economy and market economy concepts (or political determination and economic rationality, e.g. Iyer, 1999). In the (Northern) European market-based economy, important social issues have typically been approached from the public vision perspective. Environmental degradation is a current issue of social concern that arises discussions about the necessity, the efficiency, and the feasibility of regulatory intervention, on the one hand, and about corporate self-regulation, on the other hand.

There are arguments to criticize both of the above-mentioned approaches to the resolution of environmental problems. The problem of regulatory solutions is that they risk being inefficient because they can contrast market forces. Moreover, the use of “*stick*” can arise in business companies an unfavorable

and unconstructive resistance effect. Corporate vision can be superficially settled by saying that industry is a very remarkable source of environmental problems and, hence, not the problem solver. This opinion questions the capacity of companies to resolve environmental problems because they are so deeply involved in their causing. There are also arguments that aim at defending companies from social expectations that would not be justified. One of such arguments is that they should not be bothered with too many extra tasks: their primary scope is to generate profit, and they should concentrate on this, preferably avoiding adverse effects on the natural environment. Implicit in this opinion is the belief that environmental management is not necessarily good for business. According to this thought, public institutions should set limits to economic activities (like limits to the exploitation of natural resources and maximum pollution limits), and companies should pursue profit within this regulatory framework, being this enough to make them socially concerned. Otherwise, there is a danger that companies are requested to take responsibility for very complex problems that they are actually neither responsible for nor capable of resolving. This distorted situation has been addressed e.g. by Caselli (1998), who points out that the environmental responsibility (and more broadly, the social responsibility) of companies must not be viewed as a one way duty, but there exists also the responsibility of society towards business organizations. This two-fold conception of responsibility emphasizes that companies should not be forced to pursue objectives that institutionally do not belong to them, and that unnatural behavior should not be imposed to them. This opinion is supported e.g. by Welford (2002, 11), who argues that companies are the centers of economic interest, and that environmental management must not be a hindrance to conduct business successfully:

“To some extent we should expect businesses to demonstrate a greater degree of altruism but it would be wrong to ignore the business imperative to make profit and to contribute to the wealth creation process central to successful economies. Thus, any form of corporate environmental management must be fully consistent with or even enhance businesses’ competitive advantage”.

In this view, it is important to establish a balance between the institutional role of generating profit and other social tasks. The message is that companies are in search of competitive advantage, and that environmental management must fit their competitive strategy.

Public institutions have a possibility to use the regulative tool in a less compelling way in order to involve industries in the finding of solutions to environmental problems. In this case, environmental politics would have a symbolic content, which means that it would prescribe a determined intent of a regulative body, but not transform immediately this intent into mandatory legal requirements. One of the interpretations given to the symbolic contents

of environmental politics is that regulative bodies (governments) want to stimulate companies to take voluntary actions rather than force them. Another interpretation is that governments want to demonstrate a pragmatic approach to issues that are too complicated to be taken care of by governmental bodies alone. An extensive use of symbolic politics in environmental questions would strengthen the political role of companies (see Matten 2002). Thus, the discussion turns back to the question of finding an environmentally efficient but socially acceptable and correct way to share environmental duties and responsibilities.

Several scholars have promoted the corporate vision of environmental concern, basically for two reasons. First, it is sustained that companies have a key role in the resolution of problems, though they are not considered alone accountable for environmental degradation. Shrivastava (1995a, 937-944) stresses the importance of business companies to sustainable development because of their role as *"the primary engines of economic development"* in society, with sufficient financial resources, technological knowledge, and institutional capacity to implement ecological solutions, and tools to educate consumers to responsible consumption and waste minimization. Similarly, Welford (2002) argues that since companies drive globalization, we should expect that they drive it in a direction that is fully consistent with sustainable development. Second, environmental management is seen as a business challenge, or even as an exciting opportunity to outperform competitors. Hart (2001, 1) sustains that sustainable development is a challenge to companies, which can optimize their economic benefit and contribute to social objectives:

"Managers are faced with the task of developing business models that deliver new products, services and processes that optimize economic benefit, social equity and ecological health."

One argument that strongly emphasizes the role of business companies is that technological progress is the most likely solution to environmental problems. It is by no means a new idea: e.g. Bateson (1976; article first published in 1970) claimed already a couple of decades ago that there are three interacting factors on the basis of ecological problems: technological progress, population growth and erroneous values. Population growth stimulates technological progress and creates an anxious and hostile way to perceive the natural environment, while technological progress facilitates population growth and increments human arrogance towards environment. Bateson sustains that all above-mentioned three factors are necessary for the destruction of our world. Thus, he optimistically believes that correcting one of them would be enough to find a valid remedy.

Recently, other writers have drawn similar conclusions concerning the main causes and remedies of environmental problems. Iarrea and Vickery (1997),

identifying at least three alternative, though not mutually exclusive, ways to reduce environmental stress, conclude that technological progress remains the most acceptable, promising, practical and simple solution, which means that companies are expected to make efforts to clean their processes and design environmentally compatible products. Alternative solutions would imply that the world population should be decreased, which would cause too strong ethical and religious opposition, or that consumption should be lowered, which is not at all an easier task, since economic well-being is measured mainly by consumption. Companies would be motivated to choose ecologically efficient technological solutions by economic rationality and by the environmental concern of consumers.

Public and corporate visions are contrasting and mutually exclusive obviously only in their most extreme forms. It is, in fact, possible and rather common to find mutually supportive roles for public institutions and companies. E.g. Shrivastava (1995a, 937) sees their contribution to ecological sustainability as complementary:

“Governmental policies have mitigated many environmental problems. ...However, because much economic activity occurs within corporations, government efforts need to be supplemented with new voluntary efforts by corporations in order to address the industrially induced ecological problems.”

In other words, regulatory measures are regarded as fundamental but not alone sufficient for the mitigation of environmental harms. In one opinion, public institutions and companies should establish some forms of collaboration. Since “stick” causes resistance, companies should be involved through agreements. Moreover, since industries are experts in their own fields of activity, they can help regulative bodies to draft justified legislation, which is good both for the industry and society. Critics doubt whether it is ethically correct that industries and regulators work together for building solutions. The institutions of the European Union promote a proactive role of companies in social and environmental questions. They see that the CSR should not be perceived as a substitute for the regulation of social rights and environmental norms (see the European Union Commission’s Green Paper, COM 2001 366 final). Even green activists support pragmatic, conciliatory roles. The World Wildlife Fund (WWF)¹⁶ supports the involvement of companies and social actors because governments cannot resolve ecological problems alone. Both parties are needed in order to avoid a threat that sustainability would somehow be privatized.

¹⁶ The speech of a representative of WWf in the 10th Greening of Industry Network conference, June 2002.

2.1.2 Multilateral vision

An extensive social involvement in the mitigation of environmental degradation is supported by a multilateral vision that argues for a shared responsibility. In this view, companies, institutions (inter-national organizations, government, local administration) and civil society (consumers, citizens) should play an active role in the enhancement of sustainable practices. Integrated, mutually reinforcing and synergic actions are needed in order to get a change started. This implies the participation of all key social actors (e.g. Starik & Rands 1995). Vellinga and Wieczorek argue for the importance of a multilateral path towards ecological sustainability, emphasizing that entire production sectors must become involved. They, thus, believe that ecologically efficient solutions require no less than an industrial transformation. As Vellinga and Wieczorek (2001) argue:

“Industrial transformation (IT) goes beyond the notion of “green” products and beyond the domain of single sectors. It is about system innovation. Different sectors are likely to get involved simultaneously. Industrial transformation cannot be planned by a single actor, it requires the engagement of the society as a whole.”

Vellinga and Wieczorek further define systems in the following way:

“[a system can be defined]...as a chain of interrelated economic activities aimed at providing a specific need for society (e.g. energy and food). Such a system includes the actors (government, producers and consumers), the flow of goods and/or services they deal with and the overall physical and institutional setting in which they operate”.

Vellinga and Wieczorek sustain that industrial transformation does not take place quickly, or be limited in a single country, though it can start from local initiatives. The isolated initiatives of single actors alone are considered as inefficient, though they could give rise to a wider transformation. Vellinga and Wieczorek also claim that in order to foster industrial transformation, it is necessary to understand complex interactions between society and the environment, to identify driving forces for change and to explore development trajectories that have a minor impact on the environment. Paton, Smith and Melthus (2002) argue for a participation and cooperation of governments, businesses, non-government organizations (NGOs) and citizens. They see that the building of cooperation at a regional level is particularly challenging because the participants include governments in multiple jurisdictions, firms in multiple industries, NGOs with diverse interests and citizens with potentially conflicting perspectives. On the other hand, it can be doubted whether such a heterogeneous group could find solutions to their conflicts, or produce environmentally efficient compromises.

Though business companies, with their infinite growth objectives, are readily put under accuse of environmental degradation, the roots of the problem are, according to multilateral vision, much deeper in society. It has been claimed that technological solutions could act as drivers for a value change in society, but in another opinion, such technology-based solutions are too superficial: production, consumption, policies and life style patterns should all change in order to pursue sensible environmental improvements (see e.g. Shrivastava 1995; Sassoon & Rapisarda Sassoon 1993). The institutions of the European Union today support such multilateral vision, which application is not limited to the pursuing of ecological sustainability. It is seen as a valid way to pursue all key objectives of social development, like improved occupation and major social cohesion.

Multilateral visions of ecologically sustainable development generally underline the importance of changing the values of all social actors. The reason is that value and belief systems are perceived to guide the day to day understanding and actions of all social actors, and therefore only value change could form a sound basis for an action change process. Jennings and Zandbergen (1995) sustain that values should be instilled around the term sustainability. There should be a construction of societal and organizational fields, in which practices enhancing sustainability could be diffused, and more institutions having sustainability as a part of their constitutive, normative and regulative rules should be established. Consequently, consumers would use fewer goods more wisely and prudently, and stop measuring the quality of life by the amount of material consumption. All citizens would try to harm the environment in their decisions and actions as little as possible. The tasks of governments, according to this logic, would be the establishment of ecologically sustainable economic policies, and the handling of eventual conflicting priorities. Governments would formulate objectives, and companies would be responsible for putting them into practice. Companies would be guided by social criteria in the pursuit of their objective of continuous growth and in the promotion of consumption.

Starting from ecocentric principles, but proposing them less drastically than “*deep ecologists*”, moderated approaches to an ecologically sounder way of thinking and acting have been proposed. These approaches proceed by little steps towards sustainability. E.g. Iyer (1999) has presented such an alternative model of ecocentrism (fig. 2.1 on the next page), which relies on mutually supportive actions and collectively reinforcing relationships between consumers, business organizations, governments and institutions. As Iyer explains (1999, 273):

“Environmental responsibility within this approach is viewed to be multilateral and institutional rather than merely as moral responsibility of business or of governments.”

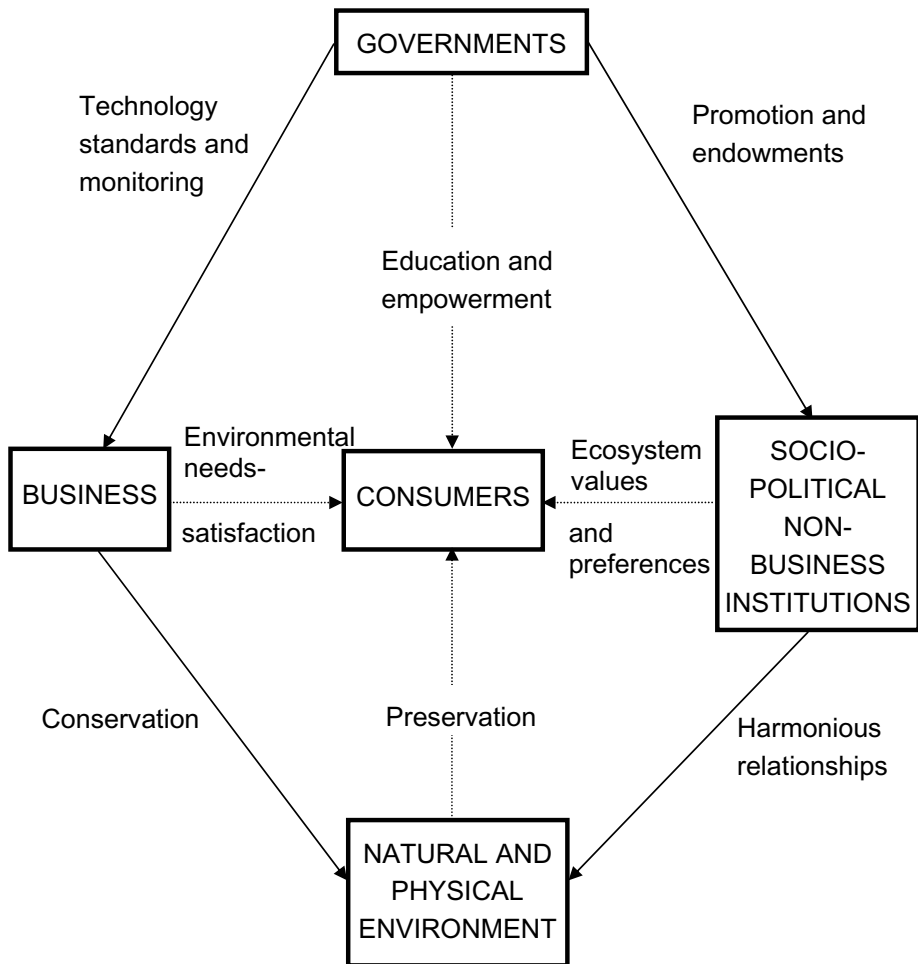


Figure 2.1: The balanced vision of multilateral "diluted" ecocentrism. Source: Iyer 1999, 283

The "multilateral ecocentric approach" proposed by Iyer originates from the critic towards erroneous values and too limited conception of environmental responsibility in society. According to Iyer (1999, 273), erroneous values emphasize the instrumental nature of environment:

“Environmental responsibility,...emerges primarily as the preservation and sustenance of nature in a manner that would limit waste, enhance the aesthetic and spiritual value of nature, and confer psychological and economic rewards

upon individuals and businesses that follow a sustainable course of interaction with nature.”

What is needed, instead, is an explicit recognition that the natural environment is “*central to survival and progress*” (Iyer 1999, 273). In the model proposed by Iyer, all social actors are invited to change their attitudes and behavior in order to minimize resource depletion and the degradation of natural environment. Non-instrumental value should be instilled around the concept “*environmental*”, and all social actors should internalize this meaning. Easily adopted and superficial responses would not be enough. Therefore consumers should not limit their responses to buying green products: they should try to reduce consumption and favor reuse and durability rather than seek convenient consumption and waste disposal or recycling. Governments should align regulations to protect biospheric processes, to educate consumers and to promote the initiatives of NGO’s. Companies should compete by means of decreased resource use, concentrate on scope economies, and emphasize reuse, rebuilding and restoring rather than recycling.

As its author recognizes, the above-illustrated model still requests radical changes in the behavior of all social actors, though it is intended to represent a more pragmatic and a less revolutionary framework than typical ecocentric solutions.

Iyer sees that a value shift towards the ecocentric ideal of acknowledging the nature intrinsic value is necessary for the production of sensible and permanent change. Since individuals adopt their basic values from relevant political and cultural institutions, a transformation of these institutions is seen as a precondition for any progress towards ecocentric environmental responsibility.

2.2 Change forces

2.2.1 External determinist forces

2.2.1.1 Pressures of external stakeholders

According to the stakeholder approach (Miller & Szekely 1995), the main task of companies is to identify the most important stakeholders, their evaluation criteria and assessment systems. Conventionally we are used to consider as

possible stakeholders individuals or groupings that can affect or be affected by a company's actions. Following Madsen and Ulhoi (2001, 78), stakeholders can be defined as:

"...individuals or groups with a legal, economic, moral and/or self-perceived opportunity to claim ownership, rights or interest in a firm and its past, present or future activities..."

Environmental stakeholders can be defined as individuals or groups that intend to represent the natural environment and defend its interests (Stead & Stead 2000). The role of external stakeholders in corporate environmental management is seen as important because of the increasing social attention to environmental issues. E.g. Madsen and Ulhoi sustain that (2001, 77):

"Given the increasing general interest in environmental issues it is expected that different groups of stakeholders will exert an increasing influence on companies' environmental behavior and attitudes in the future."

The importance of environmental stakeholders to business companies is emphasized at least for two reasons. the first reason is that stakeholders can offer possibilities to acquire resources (especially knowledge); the second reason is that stakeholder relationships can contribute to the gaining of legitimation. As Ulhoi, Madsen and Hildebrandt (1996) argue, an environmental stakeholder can even influence the commercial viability and the direction of a company¹⁷. According to Escoubes (1999), responding to critical stakeholders' requests is a potential source of market value, and in any case the only way to guarantee ecologically efficient solutions.

Since there are numerous potential interlocutors, a company has to evaluate carefully whose opinion is important. Hockerts (2001) proposes two criteria for the assessment of environmental stakeholders. First, a stakeholder group is important if it manifests interest in the environmental impact that the company causes; second, the stakeholder group must be able to make its demands felt, using one of the main divulgation channels of environmental concern: the market, political decision-making and public opinion. Using the market channel, a stakeholder can influence a company by its buying or boycotting decisions. In the second case, a stakeholder is able to influence regulative measures concerning the company. An influence on public opinion can increase or decrease the acceptance of a company's activities.

In line with a perceived or potential increase of environmental awareness in society, almost all imaginable social groupings that are somehow related to companies have been listed among potential environmental stakeholders. Legislators, local authorities, business associations, trade unions, standard

¹⁷ Possibilities to acquire resources through stakeholder relationships will be further discussed in the second part of section 2.4, dedicated to multilateral environmental measures.

setters, environmental pressure groups, the media, government, insurers, financiers, consumers, suppliers, distributors, contractors, competitors, local population, NGOs and the public are frequent items of environmental stakeholder lists¹⁸ (see e.g. Ketola 1999; Stead & Stead 2000). Every stakeholder has its own interests, experience and knowledge, which influence its evaluation criteria. Since different stakeholders can have divergent opinions about efficient solutions, it is possible that responding to one's expectations leaves another stakeholder unsatisfied (Miller & Szekely 1995). Some stakeholders can even criticize the environmental performance of a company on the basis of emotional or uninformed arguments. Consumers have been criticized for their limited capacity to understand environmental issues. E.g. Iyer (1999, 277) doubts that consumers are capable of highlighting the way to ecological sustainability:

"...inefficient production processes, over-generation of waste, environmentally inappropriate technology, and planned obsolescence, while detrimental to the environment, cannot be effectively observed by markets alone."

The environmental control of consumers usually reaches to products, not further, though certification systems and authorized labels can provide some ulterior guarantees. The rest depends on companies, and often on the real share of ethics in their environmental approaches.

Escoubès (1999) proposes an anticipative approach, arguing that it is not enough to identify current stakeholders and their expectations, but efforts should be made to anticipate emerging stakeholders. In his view, the importance of external stakeholders must be constantly monitored because new interlocutors can emerge. After having identified the key stakeholders and their expectations, the company should try to meet their requirements adequately.

Savage et al. (1991) distinguish between supportive and non-supportive stakeholders, associating them, correspondingly, with a favorable and a hostile attitude to environmental responsiveness. The authors point out that the distinction is company-specific and dynamic, since relationships evolve and change in time. The influence of non-supportive stakeholders could threaten corporate environmental initiatives. One reason for a hostile attitude could be a belief that the solutions of a company are against the interests of the stakeholder. A good example is the relationship of business organizations to environmental pressure groups: the last-mentioned used to be classified as non-supportive interlocutors that could potentially cause problems to companies. However, the conception of this relationship has evolved, and currently environmental pressure groups are also seen as potential supportive stake-

¹⁸ The list contains only external stakeholders and, thus, omits two important internal stakeholder groups: employees and shareholders.

holders that can help companies to design flexible solutions to environmental problems (Dutton 1996). Another example is the relationship of companies to consumers. As non-supportive stakeholders, consumers do not appreciate the environmental efforts of a company. In fact, sometimes companies put the blame on consumers for the lack of environmental initiatives, sustaining that they are reluctant to pay for environmental quality.

Several studies have investigated the importance of stakeholders to corporate environmental management. Empirical evidence has been found of companies that perceive environmental pressures from customers, government, community groups and shareholders. Some findings also suggest that the expectations of stakeholders have motivated the environmental actions of companies (see e.g. Henriques & Sadosky¹⁹ 1996).

The results of a recent survey on the environmental management of Danish business organizations (see Madsen & Ulhoi 2001) suggest that regulators exert major influence on corporate environmental initiatives. The relatively high importance of international authorities is explained by the membership of the European Union. There are other stakeholders, whose influence is becoming more felt, namely owners or shareholders, employees (internal stakeholders) and customers. Many companies have integrated environmental issues in a compulsory statutory health and safety scheme, which can explain the importance assigned to employees. According to Madsen and Ulhoi, competitive potentialities, the assessments of financial institutions or environmental pressure groups do not seem to influence corporate environmental management. They sustain that these results are similar to those in other EU countries (e.g. Ulhoi, Madsen & Richardson 1996; Ulhoi, Madsen & Sinding 2000a; Ulhoi, Madsen & Sinding 2000b). They also observe that their results are partially different from the findings of Fineman and Clarke (1996). The results of both investigations suggest that regulators are important environmental stakeholders (across industries), and that companies with hazardous production and environmentally negative history are most aware of the role and legitimation of stakeholders, and have a potential for dialogue and relationships. Contrary to the findings of Madsen and Ulhoi, the findings of Fineman and Clarke suggest that environmental pressure groups exert a significant influence on companies.

¹⁹ A survey of the 750 dominate firms in Canada.

2.2.1.2 Determinist views of organizational development

The importance of external determinist forces to a successful organizational change is supported particularly by resource dependency and population ecology approaches (see e.g. Ahonen 2001). According to the resource dependency theory (Pfeffer & Salancik 1978), a company depends on its external environment because it needs resources in order to carry on its activities. External environment is a source of raw materials, capital, labor, equipment, knowledge, etc. It also demands that the products, services and processes of a company meet certain requirements, like that prices are competitive, products and services desirable, and organizational structures and processes efficient. According to the resource dependency approach, the effect of external determinist forces can, to a certain extent, be managed.

A stronger external dependency of business organizations is presumed by the population ecology approach. Population ecology recognizes that managers cannot completely control organizational outcomes (Hatch 1997). The basic assumption of population ecology and resource dependency approaches is the same: companies depend on resources that external environment can offer. Population ecology emphasizes that external forces are the key determinants of success on a competitive market. Companies compete with each other, and external environment determines their survival, favoring those companies that best satisfy its needs, and fit in its strategy (Hannan & Freeman 1977).

Another framework for the interpretation of organizational performance and development is offered by institutional theories, which sustain that external environment determines what organizations should look like and how they should behave (Hatch 1997). According to the institutional approach, organizations make similar choices and start to develop in the same direction due to the effect of institutional forces (Powell & DiMaggio 1983, 1991). Organizations tend to adopt similar ideas because they are influenced by other organizations that they depend on and by the whole society. The relevant institutionalization occurs within the organizational field to which the company belongs. Within the specific organizational field emerge forces that make companies increasingly similar to each other. Powell and DiMaggio (1983, 1991) distinguish three types of institutional forces: coercive isomorphism, normative isomorphism and mimetic isomorphism. Coercive isomorphism originates from pressures created by other organizations, which the organization in question depends on. Normative isomorphism is driven by the diffusion of similar professional ideas as a consequence of similar training background and later interaction in professional organizations (professionalization), and by the cultural expectations of society. Mimetic iso-

morphism is a way to manage uncertainty by imitating solutions that in other organizations appear to be successful.

Scott (1995) distinguishes three manifestations of institutions: regulative, normative and cognitive. Regulations direct the choices of organizations by coercion and sanctions for non-compliance. They reduce the destructive and self-interested use of natural environment (Wade-Benzoni et al. 2002). The manifestations of normative aspects are the rules of thumb, standardized procedures and educational curricula that originate from professionalization, and social obligation. These normative aspects can influence the environmental approach of a company. Cognitive aspects are supported by cultural values, and they are often taken for granted. An example might be a belief that economic growth and environmental protection are flatly incompatible. Wade-Benzoni et al. (2002) argue that institutions do not influence only organizations, but also the approaches of individuals to social issues like environmental protection.

Institutional approach represents a conciliatory way to explain organizational performance and change by external determinist forces and voluntary decisions. Ahonen (2001) places institutional approach between strong determinism and unlimited voluntarism, in the sense that it views voluntary choices of business managers influenced by different institutions, like belief systems, moral obligations, behavioral patterns, routines, laws and rules (Powell & DiMaggio 1983, 1991). Institutional approach has been interpreted and used in the above-described way in the field of environmental management issues also e.g. by Heiskanen (2000). An important reason for institutionalization is the pursuit of social legitimation (Hatch 1997). Similarly, Heiskanen (2000, 9) argues that institutionalized beliefs, rules and ideas “*gain a character of being right, appropriate and obvious, and thus constrain (but also enable) action*”. Heiskanen (2000, 8) refers to environmental management models and claims that:

“Ideas are adopted not only for their utility, but also for their legitimacy, and for the legitimacy that they endow organizations with. Management models and techniques are also seen as useful, not because of their “rightness”, but because of their ability to decrease uncertainty and make complex problems appear more manageable”.

Ahonen (2001) shares the same opinion, observing that within institutional frameworks, ideas (or practices) are generally adopted in order to gain competitive assets, but also in order to pursue social legitimation.

Institutional approach acknowledges the possibility of a reverse process, namely the deinstitutionalization of influential forces. Within this framework, it is possible to study e.g. why or how certain environmental practices may

disappear, be transformed or replaced in business organizations (see e.g. Jennings & Zanderberg 1995).

2.2.2 Voluntary choice

In the management and organization literature, organizational change has been explained by theories that emphasize the effect of external determinist forces, and alternatively by theories that underline the voluntary choice of strategic actors (see for a review e.g. Ahonen 2001). According to Kirjavainen (1997), the current mainstream opinion takes into account both the choices of strategic actors and the influence of external determinist forces. Whittington (1988) sustains that the distinction between determinist and voluntary decision-making overly simplifies a reality where organizational structure, actors and external environment interact. According to Hrebniak and Joyce (1985; see also Kirjavainen 1997), organizational adaptation is a process of interaction and feedback between external forces and the choices of management. In this process, organizations do not only react to external forces, but they can also regulate and create them. This approach suggests that strategic choices made by managers can work up the external environment of a company.

In a classical view, an important task of managers is to shape strategies that adapt to external conditions and anticipate them (e.g. Chandler 1962; Johnson & Scholes 1989). Strategic management is concerned with organizational adaptation and change, in alignment with future expectations (see e.g. Brown & Starkey 2000). It consists of a stream of decisions that guide a company's relationship to its external environment, and shape internal policies and practices (e.g. Fannin & Rodriques 1986). Managers evaluate external threats and opportunities, and internal strengths and weaknesses before making decisions, being influenced by social expectations, personal values and preferences (e.g. Gilbert, Hartman, Mauriel & Freeman 1988; Mintzberg 1983). Starik and Rands (1995) claim that the role of managers in an environmental change process is significant. They sustain that individuals, who understand and are sensitive to ecological realities, are effective analysts of various external environments, and astute observers of their own organizations. These qualities can make them effective managers of change in their organizations.

Corporate management has been given the responsibility of conducting business in the interest of shareholders. This interest is typically of economic nature. Recently Tainio (2000) has argued for the relevance of shareholders in European companies, claiming that the management of these companies is strongly influenced by financial expectations. He argues that shareholders,

with their profit expectations, determine the activities of companies, while the effective power of the executive management has diminished.

The argument that only organizational management can introduce new values and ideas to organizations would represent a rather authoritarian view of organizational relationships. In a more democratic view, all organizational members have at least some kind of possibility to get their ideas heard. Making initiatives is one possible way to “*sell*” ideas to managers with decisional power (e.g. Andersson & Bateman 2000). However, if the management does not find the idea interesting, it is unlikely to lead to concrete measures.

2.3 Motives

2.3.1 Ethical motives

2.3.1.1 Managerial, organizational and external values as drivers for corporate environmental management

When environmental issues are treated as ethical questions, the importance of ethical sensitivity of managers can be emphasized. According to Flannery and May (2000), it is critical to understand the decision intentions of managers as they encounter environmentally sensitive dilemmas in order to understand what organizations must do to become ecologically sustainable. These arguments are based on the widespread opinion that the values of organizational management, regarding the orientation of business activities, are reflected in organizational behavior (e.g. Kilmann et al. 1985). The proposition that managerial values count takes strongly into account the role of management as decision-maker, and the power of managers to impose certain norms of behavior. The assumption is that organizational members at least formally accept managerial values.

Management can foster environmental values in organization in different ways. It can set formal rules and inform organizational members, e.g. by formulating and divulging a written environmental program or a handbook, or by training organizational members, removing the lack of knowledge of environmental issues. Management can also enhance environmental concern by implementing an environmental management program (see e.g. Alvesson 1989; Starik & Rands 1995). Thus, environmental values may function as

sources of information to organizational members, indicating what is the expected way of thinking and behaving. A set of values can further function as a system of control that prevents and prohibits undesired behavior.²⁰

Managerial values concern the orientation of business activities. The significance of individual values must not be overstated, and values that guide private actions cannot be automatically transferred to the professional field. Values that are the most important in private field may be quite different from those that dominate in professional field (see e.g. McCuen 1998). An example is a hobby value that the natural environment may have. Another point is that individuals may not be able, even if they desired, to pursue their environmental values at the workplace. It is also too simplistic to suppose that there are always ethical values beyond environmental decisions. The concept of “*depersonalization*” has been related to environmental issues in order to indicate that they are not treated according to personal ethical preferences. It has also been argued that endeavors to approach environmental issues objectively and scientifically have made sensitivity and moral worrying shallow. It is, thus, more plausible that technical and market considerations replace personal ethical judgments.

The idea that managers are influenced in their work by the organization and by general situational factors, in addition to their personal values, is quite popular. E.g. Wehrmeyer (1995, 84) sustains that a management style is a result of personal preferences, organizational context and situational factors:

“A management style is the manifestation of individual preferences at work and is dependent on the organizational and situational context as well as on the personal background”.

Ford and Richardson (1994) further emphasize the influence of organizational context on ethical decision-making: they sustain that the more ethical an organizational culture, the more ethically will an individual act in a decision making situation. This kind of adaptation could be plausible, according to Ford and Richardson, especially in a situation where the professional success of an individual would be at stake, or when important organizational goals could not be otherwise achieved. In the organizational culture literature, the relationship between individual and organizational values and beliefs is often seen as dialogical: management styles, which reflect personal values and beliefs, affect and are affected by the predominant corporate culture (see e.g. Ott 1989).

Interrelationships between individuals and organizations they work for may not always be smooth, demanding compromises. Organizational context may

²⁰ For more details about the functions of values and culture in organizations, see e.g. Schein 1985a, 1985b; Ott 1989.

be a powerful limit to individuals, and if individual values are in conflict with organizational values and goals, individuals may have to accept a compromise. Quinn (1997) claims that it is difficult to allow personal ethics to influence business decisions, especially in large sized organizations. There are established organizational norms and a sense of responsibility towards stakeholders that determine the desired behavior.

At the organizational level, an ethical approach to environmental issues reflects the moral conduct of business. In Caselli's (1998) opinion, ethical judgment and consideration form an integrated part of all human action, and are, thus, basic elements of business activities. According to Carroll (1996), an ethical approach implies that business is conducted without causing intentional harm to customers, environment and society. Then business decisions are influenced by ethical values and made within limits of legality, respecting people, communities and the natural environment (see e.g. the Corporate Social Responsibility Resource Center for Business Ethics²¹). Kaler (2002) claims that the ultimate concern of business ethics is the improvement of business. He sustains that a belief that an ethical approach helps managers to make good decisions, which are advantageous to themselves, their companies and the whole society, is widespread.

An ethical approach is based on environmental values, which function as principles that guide organizational behavior. However, if irrelevant values are used to explain behavior, it leads to erroneous conclusions (e.g. Meglino & Ravlin 1998). The influence of values can be examined in the light of some value classifications proposed in the (organizational) culture literature. Hofstede (1980) distinguishes between desirable and desired values. Very similar is the pair of concepts proposed by Dyer (1986), who distinguishes ideal values from real values. Desired (real) values function as guides in decision-making and behavior. Very different are desirable (ideal) values, which represent ideal behavior, but do not affect decisions and actions. Desirable values appear typically in statements and discourses. A plausible motive for the practical ineffectiveness of desirable values is that they are believed to be out of reach and impossible to pursue. Thus, a real value affects organizational behavior, whereas an ideal value remains abstract, though it is regarded as noble. According to Argyris and Schön (1978), it is important to distinguish values that are espoused from those that are in use. Espoused values may influence what people say, but they may not predict how they will actually behave (see also Schein 1985a). Values in use are internalized and they affect behavior. Unlike the previously proposed two classifications, the value distinction of Argyris and Schön is not mutually exclusive. The three

²¹ <http://www.bsr.org/resourcecenter>.

above-mentioned classifications highlight the difference between saying and doing. Espoused and internalized values may be incongruent (see e.g. Ott 1989), especially because external social pressure makes companies espouse socially acceptable values. As Meglino and Ravlin (1998, 356) claim:

"...because values are socially desirable, there are strong pressures to publicly express and validate values whether or not they are held internally ("in use")".

Some scholars sustain that the greener the organizational culture, the greener the organizational behavior. In this opinion, the starting point for environmental management is rather weak if a company does not develop *"a green mind"*. In other words, the greening of corporate culture is a prerequisite for a proactive environmental behavior. Crane (1995) has observed that the opinion is, however, based on two rather controversy ideas about the nature of corporate culture: firstly, that it is uniform in an organization; and secondly, that managers can deliberately manipulate it. Schein (1985a, 8) argues against the uniformity of organizational culture:

"Within organizations we will find subunits that can be referred to as groups and such groups may develop group cultures".

A *"greener"* corporate mind could originate from an organizational sub-culture, and even be in conflict with the dominant corporate culture, forming what is called a counterculture (Ott 1989).

When different organizational values collide, they generate a moral dilemma that has to be resolved. Different stakeholder interests can also be in conflict, requesting a more or less balanced compromise solution (see e.g. Caselli 1998). Although ethics would be firmly present in business organizations, it would not necessarily provide straightforward guides of action. Complexity increases because the question is not, should a decision generate benefit or harm, but to what degree it should generate benefits and harms to the organization and its stakeholders, the natural environment included (Collins 1989). In a conflicting decision-making situation, environmental values could either be squashed by the hard business reality, or they could change the nature of other organizational values, making them more ethical and socially-oriented (Crocì 1993).

Environmental values are, broadly speaking, a product of cultural characteristics in a certain moment (Peterson 1999). This affirmation suggests that the environmental values of individuals and organizations are influenced by values that they perceive in the surrounding socio-economic environment. The opinion that the values of managers and business organizations are influenced by external situational factors is quite popular in the organizational culture literature (e.g. Ott 1989; Lawless & Finch 1989). If situational factors are bereft of ethical grounds, they may restrict the environmental approach of man-

agers and organizations. E.g. Alvesson and Berg (1992, 141) recognize this restrictive effect:

"Values do not affect behavior in a simple and straightforward manner. ...the hard economical, political and physical reality in many cases cuts through corporate ideologies and belief systems when it comes to concrete action, at least in the short run".

Peterson (1999) sustains that the effect of cultural context on the environmental values of individuals is remarkable. However, she contemporarily argues that individuals within the same culture can interpret the natural environment in very different ways (Peterson 1999, 340):

"...the ways people see and value nature are strongly influenced by their cultural context; understandings of nature and relations to the non human world differ widely by culture and epoch; and even individuals within a culture may interpret nature in radically divergent ways."

This opinion highlights the relevance of cultural context, but recognizes the heterogeneity of interpretations that individuals and organizations can give to environmental values. Peterson (1999, 340-341) further sustains that a critical analysis of different individual and collective environmental values can help to understand why they have developed:

"Recognition of the huge range of ways that diverse individuals and cultures understand, value and live in nature can help us view our own culture's attitudes and practices in a critical light, showing us that what we see as "inevitable" or indeed "natural" may in fact be humanly constructed, changeable, even arbitrary."

In the environmental management literature, key stakeholder relationships are often seen as an important source of environmental values to business organizations. The values of key stakeholders can be an important external source of environmental ethics to organizations. Particularly has emerged the ethical approach of consumers, which has promoted a "consumer-driven" interpretation of corporate environmental ethics. In this view, managers model their personal conception of environmental responsibility or the one of their organization in order to respond to the perceived conception of most consumers (Dion 1998). The environmental efficiency of consumer-oriented approach has been questioned. Iyer (1999) argues that it shifts ultimately the environmental responsibility back to companies. Moreover, this approach induces companies to reduce environmentalism to the question of how much customers are willing to pay, and allows them to justify the lack of environmental reflection by the disinterest of market.

2.3.1.2 Ecocentric vs. anthropocentric environmental values

Ethics²² deals with the principles and the significance of moral judgment. In Thompson's words (1994, 5):

"Ethics is about choices. It is about values that lie behind them, the reasons people give to them, and the language they use to describe them."

Environmental ethics deals with choices that have an impact on environment, like choices concerning pollution and the use of natural resources. Ethical approach often weighs the social acceptability of environmental decisions.

The ethical approach to environmental issues is sometimes seen as the only way to design efficient environmental responses. E.g. Gladwin, Kennelly and Krause (1995) doubt that sustainability could be achieved without profound value changes, sustaining that ideals like equity, humility and sufficiency should become predominant in societies and among all social actors. A precondition for environmental improvement is that values, the ethical way of thinking, attitudes and life styles change (Purser, Park & Montuori 1995). It must be pointed out that a potential lack of an ethical approach to environment does not mean that the subject is to be classified as unethical. It indicates that the subject is not ethically inclined towards environmental issues, but does not exclude ethical inclination towards other ethically loaded issues (similarly e.g. Robertson, Hoffman & Herrman 1999).

The ethical dimension of man - natural environment relationship has been vividly debated at highly philosophical level. These discussions have been characterized by fundamental questions, like what rights man and other living beings have, what meanings equality and justice have in this relationship, and what are the limits of the exploitation of nature? Two polar views have interchanged arguments in order to defend their positions: they are commonly known as ecocentrism and anthropocentrism.

The first represents a universal egalitarian approach to all that exist on the planet. According to ecocentrists, the nature and every single piece of it has intrinsic value, and therefore may not be damaged. The existence of the natural environment, as well as the existence of each living being, is seen as valuable in itself. Equal value is recognized to all living beings: man is but one species among others, with no more and no less value than the others (see e.g. Iyer 1999, 247). These ideas originate from the "*deep ecologist's*" stream of environmental philosophers, which has Carson (1962) and Leopold (1970) in vanguard. Their supporters sustain that a drastic and immediate increase of environmental ethical responsibility is a duty of human kind because all living

²² A short parenthesis: the term moral is here used as synonymous to ethics. This is consistent with prior research of business ethics (see e.g. Donaldson & Werbane 1996; Jones 1991).

things have existential value. Given the current circumstances, deep ecologists claim that no less than a social revolution is needed in order to make a global, ethically-based environmental change possible.

At the other extreme, a strongly anthropocentric approach to man-natural environment relationship is based on the absolute supremacy of man over other living beings. In its most radical form, anthropocentric approach is an antithesis to ecocentrism because any moral status of natural environment is denied (see e.g. Iyer 1999). Predictably, anthropocentrism raises man and his interests above all. The natural environment has only instrumental value because it serves human ends (see e.g. Purser, Park & Montuori 1995).

Ecocentric and anthropocentric arguments have colored also the debate on the bases of environmental management in business organizations, offering different opinions about what they should be in order to sensibly mitigate environmental harms. There is general agreement on the dominating world-view: it is anthropocentrism, though it is not diffused in its strongest and most extreme form. Divergent opinions exist about other aspects, like what is the gravity of situation, and what are the most appropriate remedies. Ecocentrically-oriented scholars put the blame of current environmental problems on anthropocentric values, suggesting that as far as the anthropocentric world-view and structure of values dominate, not only in business organizations but in societies as a whole, there is no place for a fundamental change of attitudes and actions, which could resolve or mitigate many environmental problems.

Anthropocentric arguments concerning man-natural environment relationship are usually quite suitable for justifying the current exploitation of environmental resources. Though the anthropocentric view of environmental responsibility is criticized for its failure to produce efficient and permanent improvements, it does not allow an unlimited exploitation of nature: in fact, increasing attention to environmental issues can well be supported by anthropocentric, or we could say in a pointed way, other than ethical arguments. From the anthropocentric point of view, the dependence of human economic activities on natural resources is a valid reason for not over-exploiting or destroying them (Eckersley 1992). The aesthetic and spiritual value of nature to humans is seen as an ulterior motive for man to avoid environmental destruction (Iyer 1999). It does not represent a movement towards ecocentric values, since its motivation is clearly anthropocentric: do not deprive man of something that can give him pleasure. Moreover, it is seen as a kind of "*elusive* value", which can easily remain secondary with respect to tangible instrumental values. Therefore it would be easily displaced by potentials to make profit (see DesJardins 1993).

Anthropocentric and ecocentric debates have been criticized for their scarce utility to environmental management. An egalitarian ethical approach to

environmental issues is in contemporary societies perceived to be exceptional, and especially in business organizations a rarity, if not inexistent. While anthropocentrism is criticized for its inopportune values that lead to increasing environmental deterioration, ecocentrism, in turn, is accused of being totally unrealistic, idealistic, and utopian. Moreover, critics sustain that these debates tend to focus on axiology at abstract levels, being unable to introduce feasible environmental solutions. Minter and Manning (1999, 192) argue that these debates have not contributed to the development of practical solutions:

"The consequence of this discussion, many observers note, has been the field's conspicuous silence regarding concrete solutions to real world environmental dilemmas."

Environmental ethics has risked remaining something that belongs to an ideal world, but which cannot be fitted in real life situations. Some writers have compared the emerging of an ecocentric paradigm to the resolutions of such serious social problems as human slavery and child labor. They have pointed out that the development of an ecocentric paradigm would imply a strong moral awakening.

The possibilities of an ecocentric development have been evaluated by testing the applicability of ecocentric concepts to practical decision situations. The following examples will show what problems have been encountered when ecocentric principles have been used as guiding rules for actions (DesJardins 1998). Embedding ecocentrism in the neoclassical framework of corporate social responsibility, its applicability has fallen to the impossibility of conducting a completely harmless business corporation. The neoclassical model of corporate social responsibility claims that profit should be sought while obeying to a moral minimum, which is then defined in different ways. According to Bowie (1991), a moral minimum implies avoiding harm. An interpretation of ecocentrism within this model would imply the extension of the principle of a moral minimum, i.e. avoiding harm, to all living things, which in practice would soon stop all forms of economic activities, as well as almost all kinds of human activities. For example, what would food companies produce and man eat, if no plants or animals could be touched (see DesJardins 1998)? To overcome the problem of paralyzing all human action, a more moderate interpretation of moral minimum has been proposed by substituting the concept of avoiding harm for a rule: *"minimize harm to all living beings"*. However, the conclusion was that the change required would still be too radical, and as a consequence, it would be impossible to follow the rule in practice. There would be serious problems that would need to be resolved, like how various harms could be measured, and what should be their relative order of importance (DesJardins 1998).

The above-described examples represent an ethical approach that focuses on the determination of rights and responsibilities, and on the assessment of actions according to moral duties. Cafaro (2001) sustains that in this case, important ethical questions are neglected, like what is best for man and how it should be pursued, or what is a good society. Environmental decisions are important because they influence individual and social development. Cafaro further claims that environmental protection needs positive arguments because it is too often perceived as something that implies giving up freedom and happiness. His solution is an extension of ethical reasoning: environmental ethics that focus on the moral consideration of nature should be complemented with virtue ethics, which in Cafaro's words (2001, 4):

"...incorporates a respect for nature, conceives "human interests" broadly, and presents environmental protection as being in our enlightened self-interest".

Since it seems that strongly ecocentric arguments do not lead to any concrete changes of behavior, scholars that believe in practical potentialities of environmental ethics have argued for "lowering" the level of discussion, and for beginning to write down a more pragmatic ethical approach to environmental problems:

"...many writers have begun to outline a pragmatic agenda for environmental ethics by proffering approaches that attempt to shift the field's mode of inquiry to a more practical conversation about the multiple values at play in specific matters of environmental policy" (Minteer & Manning 1999, 191).

This pragmatically-oriented stream of writers thinks that it is not very useful to complain about the evident lack of ecocentric values, and that efforts should be made, instead, to connect ethical discussion to concrete decision-making situations. A slightly lower level discussion about environmental ethics in business organizations, with concrete efforts to strengthen the role of ethics and point out where we are currently failing, has taken space in several research papers of business management scholars, as well as in policy programs of governmental organs. A great part of this discussion goes under the title of sustainable development: it is the mainstream effort to infuse at least some value base to the environmental thinking of business organizations and the rest of society. Since sustainable development has become also a buzzword, used in all contexts and by all actors, whether they are environmentally concerned or not, definitions that are very close to anthropocentric ideals and, hence, deny any ethical concern for the natural environment, can be found.

2.3.1.3 Technocentrism vs. pragmatic environmental ethics

The supporters of a more ethically-oriented approach to environmental issues sustain that the dominance of anthropocentric values has led to a technology-based, or “*technocentric*” resolving of environmental problems relative to economic activities (see e.g. Purser, Park & Montuori 1995). Technocentrism is characterized by a rational and mechanical way of thinking, which bases the management of natural environment on knowledge and technological capabilities. E.g. Gladwin, Kennely and Krause (1995) claim that technocentrism has dominated already for over a century in the business world, being hence firmly rooted in it. Technocentrism is not described as a mere approach to environmental issues: technology is seen as a vehicle for progress, and technological innovation is believed to resolve all kinds of problems, environmental problems included. It questions actually almost any kind of ethical reasoning in companies because technology is seen as a substitute for values. In this “*hard-line*” thinking, values do not have room because they do not belong to the real business world. Purser et al. (1995, 1061) describe the role of technocentric reasoning in the following way:

“Technological knowing in organizational theorizing [and in management practice] places a knowledge of values secondary to knowledge that can be used primarily as a tool for instrumental purposes. Thus, appeals to consider nature for its intrinsic value are likely to be attributed as merely “subjective” sentiments that have no role to play in the “real” world dominated by instrumental rationality. In a world dominated by instrumental rationality and technological knowing, a questioning of the values that drive these forms of knowing is viewed as in and of itself “irrational” or “unrealistic”, because there is almost no way of addressing those values without seeming to challenge “reality” itself”.

Thus, technocentric approach leaves no room for non-technical considerations: technology proceeds with its own logic, while the ethical side of development is neglected. Technology is the driving force of society, not values.

The technocentrist, non-ethical approach to environmental problems has been criticized especially for its favorable attitude to growth, and for its excessive reliance on technological innovation as means to resolve problems (e.g. Shrivastava 1995a). Since technocentric approach sustains that environmental problems are overestimated, there is no need to limit growth. Environmental concern is not contrasting with an inherent desire of companies to sell more: it is normal in this competitive world we live in. On the contrary, growth is seen in many ways as advantageous: it e.g. improves the quality of life of the poorest people. Obviously, this approach measures the quality of

life in terms of material consumption: progress means better availability of goods to poorer classes, without sacrifices to more affluent classes. Growth is seen as beneficial even to environment because it allows companies to afford cleaner production methods (Gladwin, Kennelly & Krause 1995). Thus, technology is used for boosting growth, also for environmental purposes, while little attention is paid to other dimensions of environmental problems, and to other possible ways of their mitigation, like the promotion of dematerialization. In his article on *"the natural-resource based view of the firm"*, Hart (1995) argues that in the long run, natural resources will inevitably form a physical limit to corporations and consumers. He sustains that in the future, the limit to the exploitation of natural resources will be physical rather than regulatory. Since the earth and its resource base do not grow together with population and industrial production, the natural environment would become a remarkable limit to corporations and markets. Technocentric approach is rather indifferent to the limits of environmental resource base, since they can be broken by technological progress. According to Shrivastava (1995a), a wasteful resource use is a proof of this indifference.

Altogether, critics see that technocentric paradigm is a remarkable cause of many current ecological problems, and an obstacle to resolve them. Davidson (2000, 33) sustains that technological progress is likely to hamper moral progress:

"Through the modern period, technological progress has been seen as the key to moral progress, though, in fact, the hopes for moral betterment remain unfulfilled. Rather, because technological progress is a self-reinforcing process, the positive feedback effects of technological success not only compound the accumulating side-effects, but they also tend to reinforce aspects of the lower human self, that is, the utilitarian, making/doing, self-interested, egoistic aspects at the expense of the ethical, altruistic, transparent self."

As a remedy, a more ethical approach to environmental questions is demanded. It is claimed that technical solutions should not be evaluated only on the basis of their capability to resolve production problems, but taking their impact on the natural environment, now and in the future, into account. Thus, ethical evaluations should be integrated in technological development, giving a *"soul"* to science and technology.

Ecocentrism, with its equal moral sanding of all living things, is generally regarded as too radical an approach to be chosen as a course of action, and it has been accused to be an elitist approach to environmental issues. Though deep ecologists have not succeeded in pushing their ideas through in societies and in companies, environmental ethical ideas are by no means completely slashed. Social ecologists support the adoption of energy efficient lifestyles, based on environmentally benign technology and intrinsically satisfying work.

A reformist approach identifies business companies as the cause of environmental problems, and sustains that solutions must therefore come from them. As an ulterior alternative remains obviously the opinion that companies are already ethical and social enough when they do their best for pursuing profit (Friedman 1982). This business as usual approach passively hopes that environmental problems will disappear.

Keeping ecocentrism aside as a model of an ideal world, much work has been done to impose the ethical dimension of environmental issues in more moderate terms that companies could accept. As already said, much of this work goes under the title of sustainable development. It has been called an ethically diluted, compromising, middle of the road approach to environmental questions, with a more pragmatic and moderated vision of future development (Purser, Park & Montuori 1995; also DesJardins 1998).

Sustainable development model faces the moral standing of non-human living beings differently from ecocentrism. Its ethical justification is not based on the intrinsic value of nature, since it assigns moral standing to ecosystems, not to single plants or animals. Putting non-human ethical questions in less individual terms, it overcomes the problem of using the nature for productive purposes: the use is allowed, on the condition that permanent harm and destruction is avoided. Beyond the notion of sustainable development is ethical responsibility towards future generations and ecosystems as a whole. According to DesJardins (1998), the strengths of sustainability paradigm lie in its ability to look at ecology from a holistic viewpoint, and to tie ecological approach to the human self-interest of a healthy ecosphere. He further claims that sustainability paradigm should enrich previously accepted moral constraints of business companies: leaving the natural environment no worse off than it was before industrial processes should function in the same way as already accepted moral restrictions, like prohibitions against fraudulent or coercive actions. DesJardins (1998, 831) explains the constraining function of sustainability principles as follows:

“I argue that the sustainability alternative can provide ecologically sound and practical guidance. Business remains free to pursue profits within the rules of game; but the rules must be changed to include the obligation to leave natural ecosystems no worse off in the process.”

Several scholars, as well as numerous organizations and political agents, have summed up in formal statements the significance of sustainable development, trying to convey its spirit, and transmit it in more practical rules of behavior. The Food and Agriculture Organization of the United Nations (FAO²³) suggests the following definition of food sector sustainability:

²³ <http://www.fao.org/wssd/SARD/index-en.htm>

"Sustainable development is the management and conservation of the natural resources base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development in the agriculture, forestry and fisheries sectors conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable."

The definition shows the need of guaranteeing possibilities to use environmental resources for productive purposes, but establishing a new balance between goals to be pursued. Economic goals remain important, but they should not be pursued overexploiting the nature. This changed order of priority has been earlier outlined e.g. by Barbier (1987), to whom sustainable development means harmonization of biological, economic and social system goals, and efforts to achieve reasonable goals within each system without harming the other systems. Rather than an egalitarian ecological world order, the recommendations of sustainable development appeal for a sense of intra- and intergenerational altruism.

In business organizations, the idea of sustainability has been received quite well, judging by the popularity that the concept has gained. The concept has become a part of current language in many institutions and organizations, business or non-business. It has been defined in numerous personalized ways, giving the definitions often a bias in favor of the formulator. This shows also the fact that there is no unanimity on the goals of sustainable development, and particularly, on the means to achieve them. How does a sustainable company function? We could get a countless amount of different answers, which depend on goals, interests, and preferences of the respondent. On the one hand, adapting the concept to a particular productive reality, with its peculiar environmental problems, makes it more practicable. Like Hart (2001) claims, uniform solutions should be avoided, since what works for one firm may not work for another. On the other hand, eagerly accepted sustainable development, revised for the company's purposes, has also received well deserved criticism, especially when development is pronouncedly distorted towards growth, as e.g. Ketola claims (1999, 66-67):

"The concept of "sustainable growth" is just what industry wants: a clean public image with continuing economic growth".

Similarly, e.g. Purser et al. (1995, 1067) criticize the conceptualization of sustainability when economic growth is presented as a resolution of environmental degradation problems, accusing it to be *"doublespeak"*. To be practicable, sustainability must be strictly connected to the economic context, but in doing so, there is always a danger that economic benefit gains disproportionately weight at the expense of environment. Achieving *"reasonable"* goals, as

Barbier (1987) suggests, is an ambiguous limit to the exploitation of natural resources for profit purposes. Maliciously, it could be predicted that reasonable economic goals would regularly prevail over reasonable ecological goals. There is a danger that sustainability is not a moderated ethical approach to environment questions, but a calculating pseudo ethical justification for conducting business as usual. In this case, we return to the situation where environmental ethical responsibility is completely denied.

On the one hand, a diluted ethical environmental approach seems to gain consensus in the business world, but on the other hand, there is empirical evidence of growing environmental concern without ethical grounds. Recently, e.g. Crane (2000)²⁴ has sustained that there is a tendency of greening among companies and their members, bereft of any moral meaning and significance: the moral status of environment is denied, and moral reflection on relative issues avoided. Crane (2000, 673) calls this tendency the “*amoralization*” of corporate greening. The phenomenon is not new: e.g. Fineman (1996; 1997; 1998) has argued earlier that an unethical approach to environmental issues in companies is somewhat common. According to some Fineman’s research findings, quoted in the introduction part of Crane’s research, the ethical dimension of environmental issues is absent even in companies that have the most advanced environmental programs (Fineman 1996; 1997; 1998). Cutting a part of Crane’s quotation of Fineman (Fineman 1998, 243, in Crane 2000, 675):

“...corporate environmentalism is revealed to be morally hollow, while ethically pragmatic...Moral culpability ends with the “customers requirements”. The customer is benchmark of goodness.”

Thus, Fineman sustains that consumer needs are the measures of the level of “*greenness*” that a company finds necessary to pursue.

Environmental ethics can even be instrumentalized and used for profit purposes. Niiniluoto (1999) points out that although the core of ethics is the taking of others into account, it is frequently used to harness self-interest. Environmental ethics is hardly an exception. A company may simply find it advantageous to use environmental ethics for calculated purposes, like it could do with any other ethically loaded issue (Dion 1998). Environmental ethics can be a tool for the pursuit of individual or collective self-interest, to benefit the whole organization or some of its members. Organizations could pursue higher profits or have at least expectations to increase long-term profitability, thanks to improved margins of profit (gained e.g. by premium pricing or by an

²⁴ Crane’s research was an empirical case study on the ethical dimension of corporate greening. He found strong evidence of amoralization in the case companies, categorized as conventional and business-NGO collaboration organizations. His findings suggest that companies with a social mission have a strong moral commitment to greening at the top management level, but the managers do not make efforts to spread these ideas to other organizational members (Crane 2000, 673-696).

increased market share). A calculated ethical approach of an individual, labeled also an “*egocentric*” approach, could be motivated by human self-interests like psychological gratification (e.g. an achievement to be proud of) or economic rewards (Purser, Park & Montuori 1995). In these cases, environmental concern is driven by selfish motivations, not by altruism or by the intrinsic value of environment.

Companies that perceive a growing importance of environmental issues in society, and find it a profit opportunity, can resort to a rhetoric use of environmental terminology in order to draw attention and to seek social acceptance. They can make use of environmental arguments in their marketing strategies (Dion 1998). The supporters of an ethical approach to environmental issues usually look suspiciously at the instrumental use of ethics. A moral disapproval has been supplemented with doubts about the environmental efficiency of this kind of actions (e.g. Iyer 1999). A market-oriented instrumental use of ethics aims to please ecologically aware and informed consumers, but it can make a modest contribution to the mitigation of environmental harm.

2.3.2 Profit-oriented motives

2.3.2.1 Eco-efficiency of activities

One stream of scholars sustain that profit is the only plausible motive for firms to take voluntary environmental actions (similarly e.g. Iyer 1998). One laudable reason for diffusing the idea of bright profit potentialities has presumably been the objective to promote environmental management by making it attractive in the eyes of companies. Since it is difficult to believe that hard-boiled business managers would suddenly become touched by the destinies of plants and animals (see e.g. DesJardins 1998), plain profit motives seem more convincing than appeals to feelings. This approach has developed from past experiences, which indicated that environmental issues were generally seen as cost factors and barriers to growth, and therefore raised resistance or hostility. In fact, the environmental management systems began to develop in a general climate of reluctance from the part of business organizations because environmental measures were identified with additional financial burdens. This attitude was not surprising, since companies were used to environmental taxes and waste disposal costs. However, thanks to taxes and payments, environmental externalities became increasingly internalized by single polluters and

natural resource exploiters, which made a diligent planning of relative processes an interesting opportunity to save money. Opinions according to which environmental management makes business sense, and protecting the planet can offer possibilities to reap competitive benefits, started to diffuse (see e.g. Porter & Van Der Linde 1995; Hart 1995; Miller & Szekely 1995; Gillespie 1992). Competitive motives were seen as suitable for changing the attitudes to environmental management, and for encouraging voluntary initiatives.

Competitively-oriented writings on environmental management have been naturally also criticized. One critical argument is that they can risk setting excessive, overeager expectations that lead to disappointment, and to a consequent abandonment of thoughtlessly designed environmental programs. Furthermore, since many environmental actions can generate benefits in the medium (or even long) term, it might be difficult to maintain constant efforts to improve environmental performance, especially when the company encounters obstacles, or actions turn out to be erroneous (Miller & Szekely 1995). Good environmental management is based on continuity, sustainability and constant profit. The logic of preservation and a diligent use of natural resources do not contrast with a long term, continuous profit seeking.

Scholars that most strongly argue against profit-driven environmental actions claim that situations that benefit both businesses and environment do not exist. E.g. Walley and Whitehead (1994, 46-52) question such possibilities in their article *"It's not Easy Being Green"*; in their opinion:

"...managers must concentrate on finding smarter and finer tradeoffs between business and environmental concerns".

They sustain that companies have to find a right balance between profit and ecologic sacrifices. A more moderated skeptical opinion is expressed by Reinhardt (1999, 83), who sustains that *"it depends"*: win win solutions are possible, but they cannot be taken for granted. Like any other opportunity, they need to be developed, and it is up to the capabilities of the company to gain contemporary business and environmental benefits.

Cost savings are usually achieved by improving resource use, changing over to an alternative energy source, or reducing the amount of waste and pollution (see e.g. Corporate Social Responsibility Resource Center for Business Ethics²⁵). Though investments in cleaner technologies (taking operational and maintenance costs and the impact on productivity into account) postpone expected savings, there can be other savings (like those relative to the risk of liabilities), or the premium pricing of products that compensate them partially.

²⁵ <http://www.bsr.org/resourcecenter>.

In the profit-oriented view, companies find environmental management attractive if it improves environmental performance, and thereby financial position (Miles & Covin 2000). Environmental management, as any other course of action, can be a source of multiple and integrated benefits, whose ultimate value is their capacity to improve the financial situation. A popular belief is that a competitive advantage necessitates an innovation and its skilful exploitation. In the field of environmental management, a competitive advantage could be based on a product and/or process technology innovation, and reinforced with an efficient environmental management system that enhances performance and makes it visible to the market (see e.g. Hartman & Stafford 1998). However, much depends on the capacity of a company to manage and to communicate its environmental achievements. It must build a good - if not excellent - reputation among its stakeholders in order to reach the ultimate objective: financial gains (see e.g. Miles & Covin 2000). Hart (1995) considers the potential of innovation broadly. He sustains that environmental strategies can lead to the development of company-specific capabilities, which can be sources of competitive advantage. Passing over all difficulties that the discovering of an innovation can contain, it remains to say that the effect may not be as powerful as desired because the consolidation of environmental aspects of products and processes can moderate it. Environmental management may become part of the daily routine to companies; similarly, it can become a matter of course to customers, and make little difference in the buying decisions of consumers.

Several studies have examined the existence of a positive relationship between environmental and financial performance. E.g. Russo and Fouts (1997) have obtained confirmatory results: they found a positive correlation between the above-mentioned variables in their study of over 450 companies during 1991-1992. Similarly, Nehrt's (1996) results, based on the data collected from 50 pulp manufacturers, suggest that environmental investments that contemporarily prevent pollution and save costs improve the financial position. A positive correlation between good environmental performance (evaluated within an industry sector) and good financial performance (measured by ROI, ROE or total stock return) resulted also from a study among energy, chemical and computer industries (Research results of Innovest Strategic Value Advisors, Corporate Social Responsibility Resource Center for Business Ethics²⁶). Brown and Karagozoglu (1998) obtained partially contrasting results from their survey research that had as targets American manufacturing companies. The researchers examined the connection between a company's environmental actions and the improvement of competitive posi-

²⁶ <http://www.bsr.org/resourcecenter>.

tion. They listed as potential benefits: cost savings, product quality, reputation perceived by customers, ability to stand international competition, and the development of unique competitive advantages. The findings suggest that though the major part of companies make serious efforts in order to resolve problems, the management does not see a clear connection between environmental actions and improved strategic or financial position. Sharma and Vredenburg (1998), instead, have tested empirically, within the Canadian oil and gas industry, the hypotheses that proactive environmental strategies can lead to competitively valuable organizational capabilities. They identified three potential sources of specific competitive advantage: capability for stakeholder integration, capability for higher order learning, and capability for continuous innovation. Their findings support the initial hypothesis. The findings of Brown and Karagozoglu discourage the search of competitive advantage by means of environmental management, and suggest that it is rather difficult to put win win solutions into practice. Sharma and Vredenburg (1998) focused their research on one production sector, and obtained more positive results. The conclusion that can be drawn is that possibilities to develop a competitive advantage exist, but success depends on a multitude of factors, and not necessarily only on the environmental improvement itself.

As the above-quoted research results show, it is usual to sustain that improved environmental management is the cause of improved financial performance. The explanation is that a more efficient resource use generates cost savings and, thus, improves the financial position. Some scholars have proposed a reverse explanation for the positive correlation between environmental and financial performance, basing their arguments on the “*slack resources*” theory (see Graves & Waddock 1997). The logic is that organizations with a better than average financial position have “*extra*” funds that they can use for socially appreciated projects, like environmental responsibility campaigns. This explanation suggests that good financial position is not a merit of environmental management, but a precondition that allows investments in environmental improvements. These investments would obviously not be made in order to dissipate extra funds, but rather in order to improve corporate image and to get a financial return in the long term.

2.3.2.2 Environmental imprint on corporate and brand image

“The environment has arrived! It is no longer just the air we breathe or the world we live in, it has become a requirement for business to address the environment in order to maintain customers, and exist in an ever more critical global economy”.

The exclamation above is found on the internet web pages of the Quality Network²⁷: its aim is to stimulate companies to become involved in environmental management systems. Environmental management is not presented as a mere potential business benefit, but even as an absolute prerequisite for survival, under more and more severe scrutiny of corporate stakeholders. The message is that customers will not buy the products if the company does not show adequate level of environmental awareness. It is also suggested that environmental awareness is a global character of customers. This sort of extravagant accentuating of environmental management as a competitive factor has been quite frequent. Not only business consultants, eager to sell solutions to environmental management problems, but also several scholars have put a lot of emphasis on the contribution of environmental management to the building of good image.

Environmental management as a market-oriented competitive tool has been loaded with many expectations. The environmental improvement of products and processes, preferably reinforced with an external certification, can be seen as an additive value to offer to customers. The assumption is that one part of customer value, defined as *"customers' perceptions of how well their needs are met"* (Goodstein & Butz 1998, 22), is formed of environmental quality. However, adding environmental (as any other) value may not lead to success because a more demanding capacity to reinvent value would be needed. It does not necessarily demand technological innovation, but a redefinition of customers' problems (Kim & Mauborgne 1999). In other words, companies are expected to interpret creatively the needs of customers, and offer an original, environmentally better response. The ultimate presumption of market-oriented expectations is that many consumers appreciate environmentally friendly products, which therefore can help to increase market share and create new market opportunities. Companies can choose different ways of communication in order to reinforce their environmental image on the market. They can opt for using conventional forms of discourse, like advertisements, promotions, public speeches and newsletters, or they can take meaning-laden actions (Scott & Lane 2000).

Profit potentialities and image benefits have been used to attract the interest of corporate managers, but on the other hand, environmental management that first and foremost pursues competitive benefits has been condemned for the superficiality and the insignificance of environmental improvements that it generates. One big defect of this approach is that it does not enter into details of environmental problems, but concentrates on an efficient marketing mix, and on actions that are easy to execute. Insignificant environmental improve-

²⁷ <http://www.quality.co.uk/eco/ingridnt.htm>.

ments, called in the literature e.g. “*greenwashing*”, are typically sold with the help of “*environmental rhetoric*”. Critics sustain that they are a cover for conducting business as usual. Companies are believed to adopt them frequently: e.g. Shrivastava (1994) and Welford (1995) point out that environmental improvements are in most cases only superficial, for the above-mentioned reason. Welford (1995) criticizes initiatives to exploit insignificant improvements in marketing, seeing them as a cynical attempt to deceive people.

Corporate image can be kept apart from identity, though sometimes the terms are used as synonyms in organizational literature. This choice is coherent with the way that one stream of scholars defines the concept of image (e.g. Alvesson & Berg 1992). Dutton and Dukerich (1991) see organizational image as a broader concept than organizational identity, and include in it notions about how organizational members believe that others see the organization. Later this concept has been relabeled as construed external image (Dutton et al. 1994) in order to emphasize the managerial effort to make the organization appear in a certain way. Very similar to construed external image is the definition of Whetten et al. (1992): they sustain that image is the way “*organizational elites*” would like outsiders to see the organization. Gioia and Thomas (1996) call “*projected image*” the way an organization wants to be seen by outsiders. Despite the efforts to create a certain image, it is possible that different stakeholders perceive it differently. Like Dowling (1993, 101) claims, it is not likely that all external stakeholders see the company in the same way:

“A company does not have a single image. Rather it has many images. The reason is that each person holds their own image of a company”.

A corporate image can represent the essential features of an organization and, hence, correspond to organizational identity. But the above-mentioned definitions show that there is a potential gap between organizational identity and image: the latter can be intentionally designed in order to manipulate the attitudes of external stakeholders. Thus, an image could be “*illusory*” (Gioia – Schultz & Corley 2000) or cosmetic, with the aim to promote sales. The desire to appear as environmentally concerned could make a company build a cosmetic green image, which would put it in a good light in the eyes of its key stakeholders. The image could project desired (ideal type) future features, or encompass attempts to convey a socially desirable, managed impression that overstates selected aspects of identity. Instead of reflecting organizational identity, image would, in these cases, purposefully conceal or misrepresent it (Gioia, et al. 2000).

A polished corporate image can be built on a reputation advantage, which refers to the public approval of a company’s actions and achievements. According to Fombrun (1996), corporate reputation is a collective judgment of an

organization's actions and achievements. He sustains that in order to pursue a reputation advantage, a company has to focus on credibility, reliability, responsibility and trustworthiness. A reputation advantage based on environmental concern could improve the relationship to external stakeholders, and further increase the market share or the share value. There are different, consolidated ways to improve environmental reputation, like the implementation of environmental management systems or the building of strategic alliances that can increase prestige and evoke public trust.

2.4 Actions

2.4.1 Environmental commitment

2.4.1.1 Strategic importance of environmental management

“Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat” (Sun Tzu²⁸).

Military quotations like the one above are applicable to business organizations in order to express a consolidated opinion that organizations need both strategies and operational tactics. E.g. Goodstein and Butz (1998, 24) define the functioning of these levels in a very exoteric way:

“The goal at the operational level is to produce and market products or services at a reasonable profit. The operational level is all about organizational effectiveness at the present time. On the other hand, the strategic level is about growth and development – about designing the infrastructure to accommodate the future and about creating new products and services to meet emerging customer needs. In other words, this second level is about the future and strategic planning”.

Corporate strategy is the direction and the scope of an organization over the long term. Ideally it matches organizational resources to the changing external environment (Johnson & Scholes 1989). A strategic plan provides a framework for decisions, and explains business to others in order to inform, motivate and involve them. It is visionary, conceptual and directional, which are

²⁸ Refers to Sun Tzu's Art of War.

characteristics that distinguish it from shorter term, focused, implementable and measurable operational plans.

A comprehensive way to understand strategy is to see it as perspective, which is one of the definitions given to this concept by Mintzberg. In Mintzberg's words (1994, 27, 29), strategy as perspective is:

"an organization's way of doing things" ... "its content consisting not just of a chosen position but of an ingrained way of doing things."

Environmental concern may characterize the organizational way of carrying out activities. According to the principles of ecological sustainability, the economic sphere should work to satisfy basic human needs, to enhance equity and to produce useful goods and services. Companies that adopt ecological principals should therefore assess the usefulness of their contribution, and if necessary, admit that they should change drastically.

Competitively-oriented analyses apply often a market-based definition of strategy. Following Porter's (1985) celebrated market-based definition, strategy indicates the position that an organization assumes in relation to its competitors, in function of its product and market decisions. Environmental concern could assume importance in the definition of strategic position as a differentiating factor and as a variable that characterizes a target market segment.

Strategy is normally related to an organizational change: a strategic perspective draws interest when new strategies are adopted to change the course of actions. Organizational change is a strategic issue when corporate long-term goals, courses of action and allocation of resources are involved (see Chandler's, 1962, classical definition of strategy). As any strategic change, an environmental change can be classified as radical or incremental. A radical strategic change (see e.g. Gersich 1991), characterized by proactive environmental decisions, is likely to occur at intervals, when there is a need to regenerate a company. According to Greiner (1972), revolutionary phases respond to a managerial problem that needs to be resolved. A new set of practices is adopted, and organizational development proceeds to a new period of evolutionary development. Organizational development is connected to its past experiences, history and traditions (Berg, 1985). A radical change contains usually a relatively high degree of risk. An incremental change is typically much more risk avoiding, going on continuously and spontaneously (Santalainen 1991). Radical change contains usually innovative ingredients, while incremental change contents with imitating moves already made by other companies. However, the concept of imitation may be misleading, if interpreted literally, and therefore it would be more opportune to talk about translation of ideas (see e.g. Czarniawska and Joerges 1996), which means that organizations modify and reshape ideas *"borrowed"* from others, so that they fit the particular organizational reality. Strannegård (2000) has recently

pointed out that the integration of business goals and environmental concerns should be interpreted in the sense of translation of ideas.

The recognition of a need for change leads to a formulation of strategy and to its subsequent implementation – though a strategy, even if it is a good one, does not yet guarantee its actual implementation (e.g. Dion 1998). An investment strategy and its implementation is one tangible way to integrate environmental concern in business activities. E.g. Larsson (2002) argues for the validity of investment approach²⁹:

“...sustainable development in business companies should be perceived as an investment strategy: a strategic approach implies long term commitment and investment is the way to express this commitment. Every investment decision is an occasion to phase out old technologies and phase in new (emerging or available) environmentally sustainable technologies”.

The lack of knowledge and technological know-how, incompatible financial expectations (see e.g. Ashford 1993) and the scarce appreciation of the natural environment are often mentioned as barriers to environmental change in companies. According to Starik and Rands (1995, 911), these are substantially the reasons for the lack of proactive environmental management initiatives:

“First, dramatic negative impacts on natural systems are relatively recent, and our understanding of the bases, severity and scope of these impacts is still limited. Second, appreciation of the benefits derived from healthy, diverse ecological systems is underdeveloped. Third, there is insufficient public understanding of both ecological principles and the urgency of bringing humanity’s collective behavior into congruence with these principles. Fourth, reversing these impacts and approaching sustainability requires substantial change, much of it antithetical to short-term economic self-interest. Finally, a lack of understanding exists about what practices are required at various levels to act in a sustainable manner.”

The severity of environmental damage can be attenuated by arguments that define ecosystems as constantly evolving entities, or by claims that ecosystems are anyway capable to absorb hazardous substances, and to restore a state of equilibrium. In fact, one natural characteristic of ecosystems is that they change over time, and, consequently, ecological protection does not mean that we have to force to keep things as they are. It is the scale and the rate of the change that must be controlled, as DesJardins (1998) points out. The risk of overestimated reliance on the above-mentioned natural capabilities is that the gravity of situation is realized when unpredictable (so to say) harm has occurred. When environmental problems are regarded as too scientific and

²⁹ In his introductory speech at the European Trade Union Confederation (ETUC) seminar (<http://www.etuc.org/etui/18febintro.cfm>)

complex, there is likely to be little willingness to take action. It can be an effective lack in personal capacity (see also e.g. Shrivastava 1995a), but also an excuse for indifference, when alluring profit possibilities are not foreseen. There is some empirical evidence about difficulties that managers encounter when they try to follow the latest environmental tendencies. According to Schaefer and Harvey (1998), managers find it difficult to keep track with scientific information and legislative advances concerning environmental issues. Critics suspect that complaining about an excessive complexity of environmental problems has become a pretext for slow adaptation, and even for omission. Real motives for scarce interest would be costs, the lack of financial benefits, and the lack of ethical commitment.

2.4.1.2 Managerial and organizational involvement

Top management typically makes radical decisions, and diffuses their implementation throughout the rest of organization, according to the top-down logic (see e.g. Santalainen 1991). Decisions can be implemented through emergent and planned actions (Chakravorthy & White 2002). Intentional top-down efforts that aim to organizational revitalization, or organizational “*reform*”, as Tienari and Tainio (1999) call it, risk encountering one of the most significant obstacles to organizational change, which is the human resistance to the implementation of change. In fact, an increasing environmental concern might cause some kind of organizational identity crisis, and therefore existing companies might not be capable of implementing radical change. The question has been formed in terms of organizational identity, which is a concept that is often used to denote what is central, distinctive and enduring in the organization (Albert & Whetten 1985; Alvesson & Berg 1992; Gioia, Shultz & Corley 2000). But is it reasonable to expect that companies would admit that their products are unnecessary, and that they would rethink the motives of their whole existence on the basis of sustainability principles? Would they be capable of redefining their core business and materials they use (Ashford 1999; McDonough 1999)? Existing companies are believed to implement gradual improvements, but be unlikely environmental innovators, being such a role reserved for new entrants (see e.g. Ashford & McDonough in the 8th Greening of Industry Conference, reported by Rossi, Szejnwald Brown & Baas 1999). The very idea of organizational change can be repulsive, since earlier concepts and practices, being part of organizational traditions, should be removed. Gioia, Schultz and Corley (2001, 75) point out that the need for a change must first be well accepted:

"To induce change, the organization must be destabilized and convinced that there is a necessity for a different way of seeing and being."

Established individual or organizational routines can in turn hamper the recognition of this necessity, and generate a kind of defensiveness that has been called e.g. skilled incompetence. There are different kinds of defensive routines that can hamper organizational change. Brown and Starkey (2000) have called "*ego defences*" a series of modes to stick to current ways of action. They have identified them as barriers to recognize the need for organizational learning, since new ideas would make current organizational practices appear poor or wrong. Brown and Starkey (2000, 102) propose that it is a question of maintaining individual and collective self-esteem:

"Organizations are prone to ego defences, such as denial, rationalization, idealization, fantasy, and symbolization, that maintain collective self-esteem and the continuity of existing identity. These defences are dysfunctional when they mitigate against necessary organizational change. ..."

The same authors (2000, 108) add that:

"...organizations often engage in defensive information processing in order to maintain individual and collective self-esteem, and, in defending collective self-esteem, organizations are preserving their existing self-concepts. In short, an organization's self-concept is the outcome of the struggle to generate and maintain self-esteem. However, it is clear that there are occasions when organizations do learn and challenge existing self-concepts. Such learning is required when an organization seeks to improve its existing capabilities, either to perform better in a static environment or to adapt to a changing environment."

A plausible stimulus for environmental change would, thus, be a need for increasing efficiency (operational level) or a need to align the organizational way of doing with new external requirements (strategic level). Business environment evolves, and companies have to keep up with changing competitive, economic and social realities.

One way to integrate environmental management in human organization is to establish a position of environmental manager or department, and put people in relative positions. The presence of environmental managers or departments (as well as e.g. documented environmental programs) has often been used as a criterion to assess the environmental commitment of business companies. Their presence would indicate that a company dedicates time and manpower to environmental issues. However, the assignment of environmental issues to separate departments or professional figures risks putting them in a marginal position and, hence, hampering their efficient consideration (see e.g. Ulhoi, Madsen & Hildebrandt 1996). In fact, some empirical evidence support the argument that environmental issues remain in these cases

unconnected from business activities, and that it is difficult to get something concrete done.

Catasùs and Lundgren (1999) have studied the endeavors of environmental managers to increase the importance of environmental issues within their organizations. The starting point of the research was that besides good arguments to improve a firm's environmental responsibility (like stakeholder needs, examples of other successful firms), there are also strong counter forces that make it difficult to get projects through. Catasùs and Lundgren (1999) suggest that the presence of environmental managers and departments is a way to keep environmental issues out of the way. When business and environmental goals are incompatible, organizations solve the problem creating a separate structure with its own processes. Procedures become more important than results: for example, it is more important to display organization's environmental policy than comply with it. The research findings of Catasùs and Lundgren (1999), based on focus group and in-depth interviews with environmental managers representing different economic fields, suggest that environmental managers try to integrate environmental issues in their organizations, but feel themselves relatively lonely with their mission. They seek support especially from external allies, like customers, suppliers, owners and government, and try to "*sell*" environmental initiatives to their superiors by re-labeling them in monetary or efficiency terms. Starik and Rands (1995) share the opinion of Catasùs and Lundgren (1999) about the inefficiency of separate environmental units. They sustain that organizational differentiation by the creation of specialized units can have conflicting effects on sustainability efforts: it can increase identification with the goals of the specialized unit, but on the other hand, it can decrease the communication of organizational practices and their impact, and diminish the acceptance of personal responsibilities for the elimination of environmental inefficiencies.

Cordano and Frieze (2000) sustain that environmental managers fail to communicate the economic merits of pollution prevention to business managers, which consequently do not find them interesting. Similarly, Shelton (1994) argues that a communication problem hinders strategic environmental initiatives. The point is that environmental managers should translate environmental data in business language because otherwise they are neither understood nor found interesting.

Lothe, Myrtveit and Trapani (1999) claim that the lack of rewards for environmental efforts can be a considerable barrier to the commitment of organizational members. In their view, organizational members do not have sufficient incentives to attend to the resolution of environmental problems. This could partly explain why environmental managers find it sometimes hard to get their projects through: they are the only ones paid for resolving these

problems, while the others receive rewards and recognition for different kind of achievements. This may be an obstacle especially when environmental management is confined in a separate structure.

2.4.2 Environmental behavior

2.4.2.1 Unilateral measures: management tools, communication tools and clean technical and technological measures

Business companies can make use of a set of management techniques in order to integrate the environmental dimension in their activities. The best known management techniques can be grouped in three classes as illustrated below (source: The Italian Environmental Institute³⁰):

1. Management tools: environmental accounting (balance), benchmarking, indicators, management systems, audits and life cycle assessment.
2. Communication tools: environmental statement, report, eco-labels and green marketing.
3. Clean technical and technological measures: refer usually to all technical and technological measures that aim at minimizing the environmental impact of production activities.

The contents of each of the above-listed management technique will be next briefly defined, starting from management tools.

Environmental accounting (balance) can be used for internal decision-making or external communication. In the former case, the question is of environmental management accounting, which consists of the identification, collection, estimation, analysis, internal reporting, and use of materials and energy flow information, environmental cost information and other cost information for conventional and environmental decision-making. In the second case, the question is of environmental financial accounting, which focuses on reporting environmental liability costs and other significant environmental costs³¹.

Benchmarking is a systematic and continuous process of comparison of organizational, functional and process performance with excellent cases in order to reach and exceed them. It can be used internally in order to foster a

³⁰ l'Istituto per Ambiente: <http://www.ipa.it>.

³¹ Definitions from: Environmental Management Accounting Research and Information Center, http://www.emaweb.org/about_ema.htm.

continuous improvement of departments and units. As an alternative, it can be applied externally, using as the object of comparison competitors, the whole sector or certain leading companies operating in different production sectors. The solutions identified within the sector where the company operates are likely to be feasible, but not particularly innovative. A benchmarking that transcends the boundaries of the sector can, in turn, lead to the discovery of revolutionary solutions, which feasibility has to be, however, verified.

Environmental indicators classify and synthesize information. They can assist the management and the control of environmental issues, and be used in communication to external stakeholders. They can be grouped in three classes³²: physical indicators, business/management indicators and impact indicators. Physical indicators measure material flows and energy inputs and outputs from production processes. Business/management indicators link physical aspects of environmental performance to business performance information, or describe environmental management efforts. Examples of these indicators are ISO 14001 and EMAS certification, the disclosure of environmental investments, and the number of reported non-compliance events. Impact indicators are built on physical output data and relative environmental impacts. The advantage of indicators is their capacity to provide data that is useful for environmental assessment. They are useful only if the scope of their use is clear.

Standardised environmental management system represents a dominant approach to environmental issues in most large companies (Welford 2002). It provides an integrated and systematic way to involve a whole business organization in continuous improvement, with the establishment of clear responsibilities and efficient communication flows. According to Welford (2002, 4), environmental management systems have become popular because they facilitate managerial efforts:

“Basically standardization of practices stems from the wish to minimise human effort and simplify decision-making. Corporate actions, responses and interpretations become habitualised and “given” in the organization.”

At its worst, a system approach can be a bureaucratic environmental tool, which demands paperwork and imposes other formal requirements. Its value is in its potential to be a way to redefine the relationships of a company to the others. The most important environmental management system standards have some common features³³. They require an initial audit for the identification of

³² This classification has been developed for the MEPI-project (Measuring Environmental Performance of Industry), source: Tyteca et al. (2002).

³³ The most popular environmental management system is certified according to the ISO 14001 standard. It offers a general and flexible framework for environmental management, and is applicable across industries

the areas of greatest impact, and use it for the formulation of environmental policy. They proceed with the definition of objectives and targets, and with the establishment of means to achieve them. The effectiveness of the system is guaranteed by internal audits, while a management review ensures that the system continues to be suitable for the organization (see e.g. The Quality Network³⁴). A management system does not per se guarantee environmental efficiency, basically because companies decide goals and measures. E.g. Purser, Park and Montuori (1995) claim that current environmental management systems do not actually produce good environmental results, and, thus, they are unable to lead us to ecological sustainability. They also sustain that such systems produce scarce environmental improvements, and even restrain companies from developing more efficient practices. Paradoxically, standardized systems can be seen as neutral to real ecological problems. Dobers (1996), in his study of air pollution control technology in the field of waste incineration, found empirical support for the argument that environmental management systems do not lead to a more ambitious goal setting. His findings suggest that environmental goals are established independently from the system, on the basis of common sense logic. Companies set environmental goals on the basis of predictions about legislative restrictions, opportunities to eliminate evident inefficiencies, or probable cost savings. These goals can be pursued also without an environmental management system. Another critical argument is that companies with a certified environmental management system improve their performance slower than companies that act according to self-designed environmental management programs. Dobers (1996) conclude that the main advantages of a system approach are an increase of internal efficiency, and a systematic approach to environmental issues.

Environmental audit consists of a systematic, documented, periodical, objective assessment of the efficiency of environmental management systems and environmental processes (see for a more detailed definition EMAS regulation). Environmental management systems based on the ISO 14001 standard and EMAS regulation use audit as a control tool. An external audit is a prerequisite for certification.

Lifecycle assessment (LCA) is a method for the assessment of the environmental impact of a determined process or activity. It can be used for the comparison of different productions or different environmental measures in production systems. In addition, it is useful for the optimization of resource use. LCA can also document the environmental efforts, and, thus, provide information that can be communicated to external stakeholders.

³⁴ <http://www.quality.co.uk/eco/ingridnt.htm>.

The capacity of environmental management tools to assure better environmental solutions has been questioned because of their strong orientation to generate business benefit. This is the opinion of Garrod and Chadwick (1996, 38), who sustain that the problem lies in the basis of management tools, i.e. in that they are implemented for profit and not for ethical purposes:

“Many firms have attempted to integrate various environmental tools within their existing frameworks, giving them the appearance but not the substance of what is to be a “green-minded company.”

The argument is that environmental improvements remain barren because there is no moral worry or judgment beyond actions. A perceived risk is that environmental management tools are used merely for communication purposes in order to create a good corporate image, and to improve determined stakeholder relationships (Boiral & Sala 1998).

After management tools, the description continues with the definitions of environmental communication tools. According to the notion of companies as open systems that have interrelationships with natural, social, and economic environments, production activities have direct and indirect effects on economic development and on the state of natural environment. Therefore it is believed that an efficient business management must not pursue only economic goals, but also social and environmental equilibrium. External communication becomes, thus, an important tool to diffuse information, and to respond to external expectations. It can contribute to the establishment of positive relationships to different stakeholders. The principal criteria for an efficient environmental communication are: transparency (in terms of accuracy and technical reliability), openness (the bidimensionality of relationship) and continuity (emphasizing that reliability can be based on a systematic and continuous communication).

Environmental statements and reports usually aim at gaining the acceptance of different external stakeholders. Statements synthesize the principal aspects and measures that have been taken to mitigate negative environmental impact. Reports are normally published yearly, and they typically contain quantitative and qualitative information about environmental management. The widespread use of environmental reports and statements reflects the importance that external acceptance of environmental performance has. The need to legitimize corporate environmental performance has, in some cases, led to a tendency to pad out the truth, e.g. trying to put the company in as good light as possible in its annual report. The empirical findings of Niskanen and Nieminen (2001) support this argument. They examined a sample of Finnish listed companies, and found that environmental reporting was biased, emphasizing positive events. Hanson, White and Crispin (2001) examined the annual reports of one Australian company, and obtained similar results. Hanson et al. identified four

styles to report environmental issues: the first is “*good news*” style, which is clearly self-laudatory; the second is “*selective silence*”, which underlines positive achievements, whereas less pleasant aspects of corporate operations are left unmentioned; the third is labeled “*retroscription*”, which stands for a style that presents the company as having anticipated issues; the fourth is “*we know best*” style, which provides factual information and presents the company as an expert of environmental issues, having sound knowledge and experience.

Eco-labels and green marketing are market-oriented communication tools, which can be used for competitive purposes. Eco-labels are used to show the environmental quality of products, and to distinguish them from competing products. Green marketing starts from the assessment of customers and competitors (like conventional marketing), and emphasizes the environmental dimension of products and relative services. It assists companies to pursue customer satisfaction, ecological sustainability, social acceptance and product safety, in an economically profitable way. Examples of green marketing actions are initiatives to educate and inform the market, or efforts to make consumers act in a certain way (e.g. recycling programs). Green marketing implies that companies take the role of educators, informants and idea mongers. The supporters of green marketing initiatives see companies as strong potential agents of change that can influence consumption patterns, while skeptics sustain that companies should not be oppressed by similar expectations. Shrivastava (1995) supports the former opinion, sustaining that companies can influence the environmental decisions of consumers by using marketing tools for educative purposes.

The last point of this section is the definition of the concept of clean technical and technological measures. These measures aim at minimizing the environmental impact of production activities. They are relatively clean compared to conventional solutions. Clean technologies can be introduced in the initial phase of the design of production equipment, or later by changing the existing production processes substantially. Technical measures can be taken in order to modify existing equipment. Strictly speaking, clean technologies include measures that prevent negative environmental impact. Alternatively, companies can choose “*end of pipe*” (or “*downstream*”) technologies, which do not eliminate negative impact, but mitigate its effect on the natural environment.

2.4.2.2 Multilateral measures: collaborative relationships and the acceptability of activities

It would be unwise for a business company to understate possibilities to find external support to environmental questions. It would also be highly risky to proceed with unilateral solutions, without considering reactions that a company's actions (or inactivity) may cause. These points have been strongly emphasized in writings that suggest a stakeholder approach to environmental management questions. Stead and Stead (2000) argue that the forming of collaborative relationships with other organizations of various types is recommendable in order to manage common resources effectively. Environmental partnerships are perceived as useful for many reasons: they can help to anticipate conflicts, carry on mediation tasks, build joint problem solutions and establish policy dialogues. Putting it briefly, companies are recommended to collaborate with external stakeholders in order to seek from outside resources what they do not have internally, and to be on friendly terms with whomever could threaten the legitimacy of their activities.

Much has been written about the importance of external stakeholders to companies that want to improve their environmental performance, especially in a competitively successful way. In accordance with the resource dependence theory, which sustains that organizations need interrelationships to other organizations because they cannot internalize all necessary resources (see Pfeffer & Salancik 1978), it has been claimed that external stakeholders can provide to companies competitive assets (see e.g. Hartman, Hofman & Stafford 1999; Alter & Hage 1993). One of the main reasons for the need of external resources is the limited knowledge that firms have of environmental issues. Organizational learning literature suggests that organizations learn to integrate new knowledge in new goals through interaction with external stakeholders (see Banerjee 1998; Clarke & Roome 1999). Miller and Szekely (1995) recommend a dialogue with key stakeholders in order to become acquainted with environmental issues: consultation of and interaction with various social stakeholders can extend organizational knowledge and skills (see also Roome 2001). In the short term, these relationships can indicate what the main environmental problems and their feasible solutions are. In the long term, a dialogue with multiple stakeholders can contribute to the maintenance of constant improvement.

Dobers (1996) argues for the importance of producing ecologically more efficient approaches, which implies the development of management systems that are based on the limits of ecosystems. He further sustains that companies could develop environmental management systems, based on ecological analysis, together with environmental NGOs, which would guarantee that the

system takes the specific conditions of the ecosystem, in which the company operates, strongly into account.

The acquisition of knowledge and support from the right stakeholder can lead to the establishment of authoritative relationships, e.g. to governments, environmental groups or prestigious research centers, which give external credibility to environmental actions. One example is a relationship between a company (independently or as a part of an industry-wide initiative) and a regulative body, based on a voluntary agreement. Such agreement could change the regulatory climate where the company operates. Another example is the involvement of a company in local environmental activities, which have direct positive effects at the local scale, and can be used in marketing.

Many writers encourage the establishment of relationships with multiple stakeholders in order to manage environmental issues, for example in the form of networking (see e.g. Roome 2001; Madsen & Ulhoi 2001). From the environmental point of view, efficiency may require clearly defined industry-wide procedures, which take different needs and interests in society into account (see section 2.1, Vellinga and Wieczorek 2001). In this view, only solutions that are industry-wide and equal, and divide the burden among different stakeholders, have some hope to be adopted. Efficient environmental solutions would be designed with a conjoint contribution of numerous key stakeholders (suppliers, managers, other companies within the same industry, NGOs, government, consumers and others) that weight the environmental costs of different resource use options, and evaluate the feasibility of alternative procedures.

Numerous experiences of environmental stakeholder collaboration can be found. Multiple stakeholders have gathered together in order to pursue a variety of goals, like the generation of more efficient resources, the reduction of uncertainty or simply the enhancement of social interaction (e.g. initiatives in the Finnish food sector to promote organic foods). There are also experiences of industry-wide programs that aim at improving a bad reputation of an entire sector that has led to the disapproval of public opinion (the Responsible Care Program of chemical industry). In fact, though individual companies are judged for their specific environmental impact, the malpractices and the disasters of a single company can denigrate the reputation of the whole sector.

Although the idea to gather numerous stakeholders together to resolve problems may sound fine, it must be asked whether a wide and heterogeneous group of participants could be able to elaborate practical programs, and whether all companies involved would implement the solutions in a similar way. Propositions to develop community-based sustainable development programs have aroused criticism because the existence of homogeneous and consensual communities is regarded as unlikely. Companies can also give dif-

ferent responses within a common management framework. Howard, Nash and Ehrenfeld (2000) found in their study of 16 chemical manufacturers that there were remarkable differences in the way companies apply the Responsible Care code. Their findings ranked companies from those that had not changed their way of doing to those that had adopted a completely new way of thinking. They identified a great deal of variation in actions that were not observable by external stakeholders. In fields that were visible to outsiders, actions were, instead, uniform. These empirical results reveal potential inefficiencies of industry-wide solutions. Another weakness of environmental stakeholder relationships may be that though they seem, at first glance, highly advantageous and desirable, they risk generating inefficient solutions, formulated as compromises between contrasting objectives. For example environmental pressure groups and research centers are potential partners that have their own interests to look after. Environmental pressure groups can provide specific information and give valuable support to companies as they decide organizational courses of action, but it is not at all said that they have enough power to introduce their values to a business organization. Partnerships that produce compromise solutions can be undesirable. Rossi, Szejnwald Brown and Baas (2000) point out that some scholars prefer a confrontational approach because it is likely to produce more sensible shifts towards ecologically efficient practices.

3 RESEARCH METHODOLOGY

3.1 Approach

The approach of this research is empiristic, suggesting that knowledge is a product of human experience³⁵. Observations of the research phenomenon are used for theory building by cataloging them and extrapolating principles and patterns. The reasoning is inductive. Empirists typically underline the tentative and probabilistic nature of knowledge. In this research, knowledge is seen as human by nature, being therefore limited and tied to the cultural and social context (Syrjälä, Ahonen, Syrjäläinen & Saari, 1994).

This research applies a qualitative perspective on the research phenomenon, with qualitative data collection and analysis techniques. It focuses on meanings related to a real life phenomenon. These meanings are examined from the managerial point of view (see e.g. Varto 1992, 102-118; Bryman 1988). Qualitative research typically makes efforts to understand complexities, details and contexts relative to the research phenomenon (Mason 1996). They focus on explaining a phenomenon in its specific context, making it understandable (Alasuutari 1994). In fact, this research aims to interpret the establishment and development of corporate environmental management in meat processing sector as a complex issue related to cultural and economic contexts. According to Varto (1992), interpretation implies that empirically obtained meaning relationships are “unwinded”. The integration of different parts and levels that emerge from the interpretation produces the aspired outcome, namely the understanding of the phenomenon. Like Varto further claims, subjective features, like experience, interests and preliminary understanding, affect the understanding resulting from the research process. The researcher must also establish the limits to the liberty of interpretation. Partington proposes Bhaskar’s (1975) critical realist ontology as a basis for interpretation. It adopts a three level perspective on reality: empirical (experiences or observed events), actual (events whether observed or not) and real (underlying

³⁵ For the ideas of celebrated empiricists like Francis Bacon, George Berkley, David Hume and John Locke, see e.g. Losee (1998).

tendencies which may give rise to events or lie dormant). Partington sustains that interpretations can originate from each of these levels (2000, 98):

“For research into management action, adopting such a multilevel ontological perspective allows the assumption that contexts/stimuli, meanings/cognitive processes and responses/behaviors are real, and that while some of their elements are revealed to as observable events, some may be accessible only through the subjective accounts of managers and other organizational actors and still others may only be uncovered through researcher speculation over apparent causal tendencies, demanding further enquiry and verification.”

It is, thus, sustained that interpretations may contain researcher’s speculation (creative intuition?) of social mechanisms and causal tendencies. It is as well recognized that interpretations may be adjusted by further discoveries. They are here seen as an interesting way to propose plausible explanations, and it is argued that their potential fallibility does not diminish the rigor of the way the research is conducted. Denzin (1991) claims that the fallibility of interpretations does not deny assessments of their soundness and of their probable usefulness.

An entirely new understanding of the phenomenon is an ambitious objective, but a rare outcome of research. It is more likely that research contributes to the refinement of understanding (Stake 1995), in accordance with the prevailing state of evolution of the phenomenon. As Denzin (1991, 171) points out, all interpretations are temporarily limited in a dual sense:

“First, they are always provisional, they are never established forever; their very nature allows for endless elaboration and partial negation (qualification). Second, like many other kinds of knowledge, [they] are limited in time.”

These limits should be taken into account both in the building of interpretations and in their assessment (see Denzin 1991). Finally, it is unlikely to expect that the emerging interpretation would have the status of a universal model of how the research phenomenon should be understood. In management studies, the simple fact that there are no two similar companies rejects this possibility: the degree of differentiation among companies has always been high, though certain managerial and organizational thoughts may prevail in the business world and characterize many companies. The emerging interpretation can, however, provide valuable information about some key characteristics of the research phenomenon, and build plausible relationship patterns that can fit analytical situations.

3.2 Methods

3.2.1 Choice of method and case organizations

This research applies the case study method, which is considered particularly suitable for a comprehensive empirical investigation of a contemporary, complex phenomenon, rooted in the context where it occurs (Yin 1988). Stake (1995) distinguishes intrinsic and instrumental case studies. In an intrinsic case study, the case is preselected, while in an instrumental case study, some cases would do a better job than others. In this research, the cases have an instrumental nature. They represent meat processing companies that seek to integrate environmental management in their business activities: they are aware of the environmental dimension of their processes, and seek ways to take the impact into account.

Before the description of the criteria that were used to select the companies, and certain considerations on case study generalization, some observations on the importance of environmental management in food industry, and especially in meat processing sector, are made.

It would probably not be fair to include the food industry in the “*black list*” of the worst polluters and resource exploiters. However, starting by saying that each industry sector causes environmental harm, with different urgency and priority of environmental issues, due to different products and processes (see e.g. Flannery & May 2000), it is obvious that such a big economically and socially important sector as the food industry cannot remain indifferent to environmental considerations³⁶.

The normal operations of food companies cause a constant, incremental environmental stress. Typical production processes, like the heating and cooking of raw materials or semi-finished products, the cooling or freezing of raw materials, semi-finished products or finished products, imply intensive energy and water consumption, and cause air emissions. Overall hygiene demands particularly scrupulous cleaning, which requires water and detergents. Waste materials (organic waste included) request adequate disposal, and the packages of products generate waste during distribution and after consump-

³⁶ The food sector is the largest industrial sector in the European Union, with a turnover that amounts to 1.300 billion euro, and with a number of employees that exceeds 2,5 million. Food industry in Finland is the fourth largest industry sector, after metal and engineering, forest, and chemical industries. Its main branches are meat processing, dairy and bakery industries (data relative to the year 2001; the Finnish Food and Drink Industries Federation, <http://www.etl.fi>). In Italy, agri-food production is today the second largest production sector, after metal and engineering industry (Istituto di Servizi per il Mercato Agricolo Alimentare, <http://www.ismea.it>).

tion. Since environmental management must not, according to life cycle thinking, be limited within a company's boundaries, the role of the food industry as a central part of food supply chain becomes much more significant. It has constant relationships to agricultural producers for the provision of raw materials, and it needs transportation services for distribution. Both agriculture and transportation are often seen as critical polluting sectors. As evident, the environmental impact of food production is a tendency rather than a single event (as it may be in other production sectors that are subjects to serious environmental accidents). The most eager supporters of corporate self-regulation could find numerous ways for food companies to mitigate their environmental impact: they could introduce environmental criteria in the choice of suppliers (agricultural products, process equipment, materials and packages) and services (transportation); they could further take voluntary activities in order to foster ecological concepts and practices within the food sector and the whole society. A single company could accept the challenge of integrating profitability and environmental protection, and strive to pursue environmental, social and economic viability of its activities.

The principal criteria that have supported the choice of the two meat processing companies for the object of empirical investigation are listed below. A necessary precondition for a successful in-depth organizational investigation is, however, a positive attitude of companies to the research. Such positive attitude was perceivable from the very beginning, and persisted during the whole research process.

- Willingness to develop environmental management. Both case companies sustain that environmental management is important, and are interested in improving their performance.
- Role in the sector. The Finnish company is one of the few large sized meat processing companies that dominate the Finnish market. Large sized food companies are the most visible actual or potential threats to environment: they are associated with an intensive food production chain, which can presumably be in many ways in dramatic conflict with the preservation of healthy ecosystems. The Italian company represents a typical case in a more fragmented industrial structure, characterized by the presence of a considerable number of small and medium size companies. Growing attention is paid to the environmental impact of small and medium size companies across different production sectors. The case companies represent different actors that operate in different business environments. They can, thus, highlight the research phenomenon from different sides, contributing to the achievement of rich data (cf. Alasuutari 1994).

- Centrality in the supply chain. Meat processing companies have an interlinking position in the supply chain (fig. 3.1 on the next page).
- History. The case companies are conventional business organizations, with their histories, established structures and procedures. Environmental management can cause more or less deep changes in their activities.
- Experience of environmental management. The Finnish company has done for some years continuous environmental management work, with potential failures and achievements to narrate. The Italian company started to consider explicitly its environmental approach a couple of years ago. The Finnish company already implements a standardized environmental management system ISO 14001. The Italian company intends to implement the same system in the near future. Thus, the environmental aspects of business activities do not pass unobserved.

The generalization of case studies is commonly regarded as low, but that is due to the ideas of the simple replication of results and the inappropriateness of statistical generalization. However, generalizability can be seen from other interesting viewpoints, which increase the validity of qualitative case study results outside the case itself. One of these views is the generalizability of possibility, proposed by Peräkylä (1995). In this view, it can be argued that if a given interaction pattern works in a specific context, and if we have analysed how the actors produce such interaction pattern, it is possible that the same pattern works in a large number of other contexts.

Another interesting form of generalization is the naturalistic generalization, which emphasises on the possibilities to learn from case studies. Naturalistic generalization is a product of readers' personal learning from case studies (see Stake 1995). Many general issues can be learned from single cases because people draw conclusions from case studies by adding what they have learnt from the case to other case experiences that they are familiar with. The value of such generalizations should not be understated because they can influence the future attitudes and actions of readers.

According to Alasuutari (1994), the researcher should approach the generalizability by assessing how his/her research is related to other similar phenomena or research results. Generalizability is pursued by increasing the level of abstraction, and not by looking for average or typical characteristics. One way to extend the discussion on the research phenomenon beyond the case is to embed the cases under investigation in their business environment (Alasuutari 1994). Such efforts have been made in this research by investigating the perceptions of organizations about their key external stakeholders, and by integrating the data collected inside the case companies with the data collected from the representatives of supply chain.

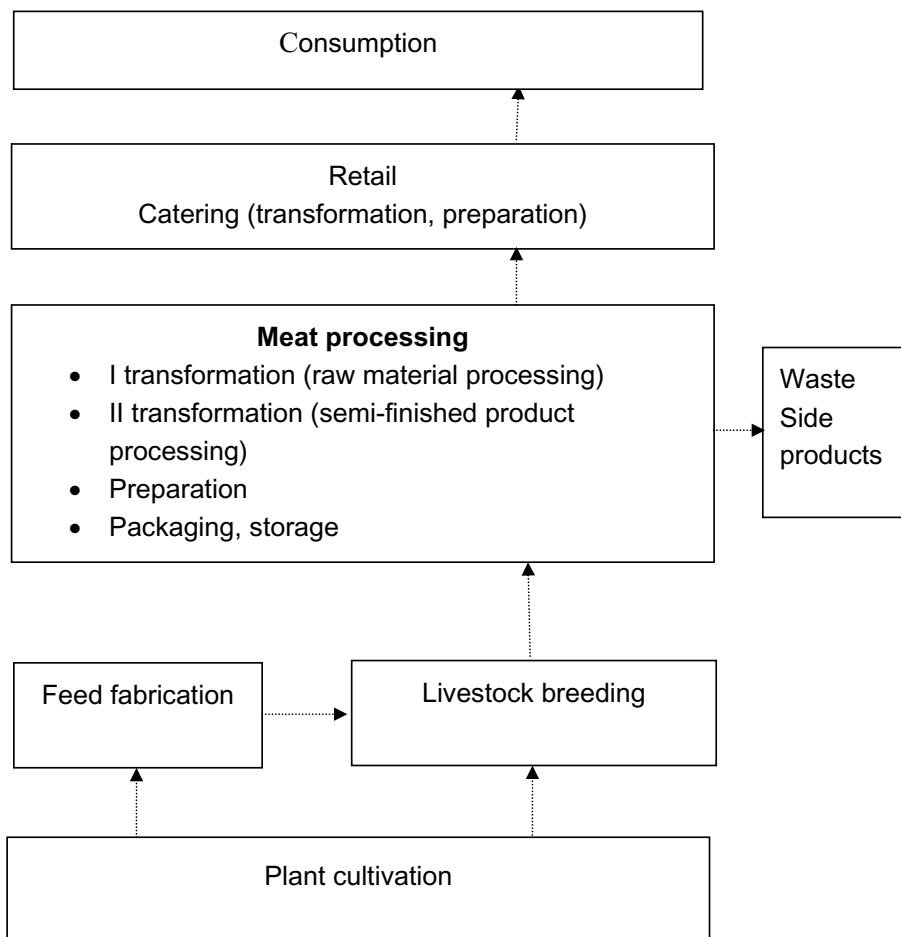


Figure 3.1: Supply chain of industrial meat products

3.2.2 Presentation of case companies

The Finnish case company operates in the slaughtering and meat processing sector (semi-finished and finished products and convenience foods). It treats a wide product range that covers pig, bovine and poultry. The main shareholders of the company are cooperatives of meat producers. The company is nationally a significant producer in its sector, which counts about over 440 companies (Company statistics of the Finnish food sector 2002³⁷). Its history is about one hundred years old. In 2001, it employed in its main production site, including

³⁷ <http://www.tkk.utu.fi/ruokasuomi>.

also administrative offices, about 1880 employees³⁸. The turnover was, in 2001, 615,7 million euros. The company has a sales office in Denmark and subsidiaries in Sweden and in Lithuania. It asked at the very beginning, after having examined the research plan, that its name would not appear in the research. A plausible reason for anonymity is that although it is willing to do good environmental work, it does not want to appear in the market as a particularly environmentally-oriented company. This attitude emerged frequently during the interviews. In order to keep the identity of the company secret, many identifiable data must be kept at very general level. On the one hand, the readers of this research can see this as a limit that hampers the evaluation of data. On the other hand, it can be considered as a circumstance that guarantees a major liberty of expression to the representatives of the company.

The Italian case company is Raspini Ltd which is a family-owned dressed pork factory, situated in the province of Turin. Raspini is specialized in the phases of processing and preservation. It produces cooked hams and charcuterie products. There are about 3500 companies operating in this sector (producing charcuterie, including those of artisan nature. Source: Istituto per la Valorizzazione di Salumi Italiani³⁹). The company was founded in 1946. The founding family Raspini has still today the controlling interest in the company, though the company has evolved from a small artisan producer to a medium size, industrialized, limited company. The number of employees, in 2001, was about 190⁴⁰. In 2001, the turnover of the company was 51,6 million euros. 92% of the turnover came from domestic sales, and 8% from exports (mainly to European countries, but also to the USA and Japan). The brand is, according to the company, well known on the domestic market.

The case companies have embraced the idea about environmentally conscious business organizations. The Finnish company is certified to ISO 14001 environmental management standard since 1996. The Italian company is interested in attaining the same environmental certification.

The Finnish and the Italian cases differ by their size and by the business environment. The companies represent different European cultures and economic realities. Italy is well known for its strong food sector and culinary traditions, and therefore it offers interesting elements to be compared with Finland, where domestic foods seem to be particularly appreciated. Though these national contexts are geographically and, at least popularly speaking, cul-

³⁸ The whole corporation, including all domestic and foreign places of business, had about 3520 employees.

³⁹ <http://www.salumi-italiani.it>.

⁴⁰ In 2001, the company had only one production site. In 2002, it bought another dressed pork factory, Prosciutti Rosa, which has about 30 employees.

turally fairly distant one from another, they are still two member states of the European Union. It has been claimed that we should talk about a European business environment, originated from the process of “*Europeanization*”, which central features are common political, economic, legal, technological and social drivers. The mentioned differences will allow making some comparisons, which will contribute to the many-sidedness of analysis and interpretation.

3.2.3 Analysis levels

This research applies a multilevel approach to corporate environmental management. Multilevel theories typically integrate the analysis of individuals and groups in the analysis of the whole organization, its strategies and external environment (see Rousseau 1985). Levels indicate different units of analysis that are used in combination in the multilevel approach. Interpretation consists of factors and relationships identified at different levels and integrated systematically (Klein, Tosi & Cannella 1999).

The multilevel approach to sustainability questions has been proposed e.g. by Starik and Rands (1995), Ketola (1999), and earlier e.g. by Costanza, Daly & Bartholomew (1992), and Yanarella and Levine (1992). Starik and Rands claim that ecological sustainability as a management concept can, and actually must be, analyzed on multiple levels. Their multilevel approach is based on system thinking, which sees business companies as a subsystem of a wider, open, stratified system (similarly also Ketola, 1999). In this approach, companies are presumed to have a fair amount of control over their relationship to the natural environment. A multilevel system-based thinking has characterized also e.g. the approach of Hadfield and Seaton to environmental management questions. Hadfield and Seaton (1999, 577) sustain that human attempts to manage environmental problems can be conceptualized as:

“...evolutionary complex systems, involving interlinked processes of physical, knowledge, technological, institutional, perceptual and behavioral change”...,but “While processes of physical and knowledge emergence are important, it is through perceptual emergence that a phenomenon comes to be regarded as a “problem” or “issue”, potentially leading to changes in policy, institutional arrangements or behavior.”

Hadfield and Seaton developed their model by analyzing public environmental policy evolvment (UK air quality policy) in response to changes in physical atmosphere, in the knowledge of those changes, and in the perception of their importance. Each of these processes forms a separate dynamical

system, but they are: “combined together in a further level of complexity and interaction...” (Hadfield & Seaton 1999, 590).

Starik and Rands included in their multilevel system model five levels: individual, organizational, political-economic, social-cultural and ecological level, sustaining that they bear particularly upon the presence or absence of ecological sustainability in the relationships of a business company to the natural environment⁴¹. Ketola (1999) embedded in her research companies in their ecological and business environments⁴². Ecological level was included because the ecosystem was seen as a prerequisite for a company’s survival, together with the business environment, which forms: “the closest and most important subsystem of a company” (Ketola 1999, 37). In corporate environmental management, a multilevel approach is supported by resource dependence relationships between entities at different levels, by the existence of feedback mechanisms, and by the fact that the whole system needs integration (through shared values, norms and roles) and coordination (regulations) in order to function effectively, (see Starik & Rands 1995).

Obviously the choice of different analysis levels must be motivated, not casual, and some advantage should be foreseen. Moreover, the scope of multilevel theory building needs to be carefully determined in order to avoid too simplistic, but also too complex outcomes. Since models are praised for their clarity and parsimony, too complex representations should be avoided (Klein, Tosi & Cannella 1999). If applied correctly, a multilevel analysis can generate interesting outcomes. This opinion is shared by Klein, Tosi and Cannella (1999, 243), who describe the benefits of this approach as follows:

“a multilevel approach can give deeper, richer portrait of organizational life - one that acknowledges the influence of the organizational context on individuals’ actions and perceptions and the influence of individuals’ actions and perceptions on the organizational context.”

For the above-mentioned reason, a multilevel approach seems particularly attractive to a qualitative case study like this, which strives to a comprehensive understanding of the research phenomenon.

This study integrates three interactive analysis levels that take the internal and the external social world of a company into account. The levels are: individual managers, business organization and business environment (fig. 3.2 on the next page).

Each level contains individual or collective entities, whose motives are regarded as significant for the development of corporate environmental

⁴¹ In their work, the authors studied what the relationship of a business organization to entities at each level should be like in order to indicate that an organization is ecologically sustainable.

⁴² Research topic was the role of environmental policy.

management. Following the teachings of organizational culture literature, it is sustained that organizational behavior is an outcome of prevailing motives that, in turn, are influenced by values, beliefs and goals.

There are two basic assumptions that suggest the integration of these analysis levels. The first is that they incorporate entities, whose motives (based on values, beliefs and goals) can significantly affect the environmental behavior of a company; the second is that organizations should seek internal and external fit. The concept of fit is emphasized also by Starik and Rands (1995, 914) whose system thinking-based argument that “*fit entails consistency between many contingencies and organizational characteristics*” is here adopted. Multilevel approach is justified also by the multilateral vision of ecologically sustainable development, based on mutually reinforcing actions of all social actors, individual and collective. It is crucial that different social actors recognize environmental problems, which otherwise remain bereft of significance (see e.g. Hadfield & Seaton 1999).

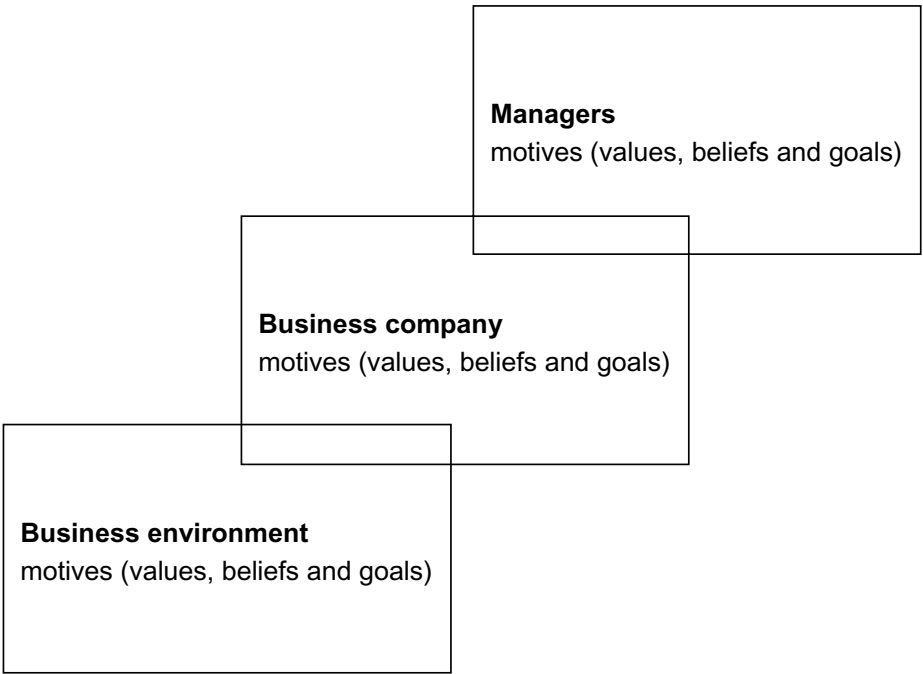


Figure 3.2: Integrated analysis levels of empirical investigation

Organizational level is the core level of this study: we can refer to the analytical setting as an organization-based multilevel setting. A popular way to explain organizational behavior is to approach it through organizational culture, and especially through values and beliefs. Organizations can be treated as purposeful entities that act in pursuit of goals. This is a traditionally assumed

view of organizations in management literature. The most obvious goal of business organizations is to pursue profit, but there can be other important goals, too (Milgrom & Roberts 1992).

Individual level refers, in this research, exclusively to the managers of business companies. A company's owners and employees are not directly included, but it is sustained that a diligent organizational management should interpret and foster the interests of a company's owners, and encourage and facilitate the use of employee potentialities. Individual managers are included because they make decisions on behalf of the organization. As Liedtka (1991, 543) points out: "*Organizations do not make decisions - individuals do*". The potential role of managers as motivated and interested promoters of new ideas, and their formal power to accept or refuse new courses of action have already been emphasized in numerous environmental management researches (e.g. Lindell & Karagozoglu 2001; Ashford 1993; Dieleman & de Hoo 1993; Kemp 1993; Schmidheiny 1992).

Instead of individual managers, another possible analysis level could have been a managerial group. It is plausible to suppose that at least the most important environmental decisions, like any other decisions of strategic importance, are not made individually, but collectively by a group of managers. However, individuals who contribute to decisions form a managerial group⁴³.

Business environment level relates the organization to its external social, political and economic circumstances. We can here pay attention to potential external drivers, which according to Aldrich (1999) include all factors outside an organization that influence its (environmental) routines and competencies. External drivers can also be seen as key stakeholders. The most important external environmental drivers/barriers are conventionally divided in four groups: regulatory, resource, market and social drivers/barriers (recently e.g. Hoffman 1999). Regulatory forces may have impact at local, national or international level. Resource forces are related to suppliers, buyer/distributors, investors and insurance companies (including as well shareholders inside the company). Market forces derive from customers (ultimately final consumers), trade associations and competitors. Social forces include environmental groups, citizen groups and the media. According to Porter (1980), the most critical environment for a business company is the sector where it operates, with its structure and competitive features. Thus, forces outside the sector influence its competitive ability only relatively.

The presence and the potential influence of different kind of motives (driven by underlying values, beliefs and goals) in organizations complicate

⁴³ Moreover, there is a convenience aspect relative to data collection: personal interview is likely to be more easily organized than a group interview with busy and frequently traveling managers.

the interpretation of corporate environmental behavior. A business company has contemporarily multiple dimensions and relationships, which can make many decisions problematic and conflicting. Consequently, a multilevel approach does not simply mean that different factors at different levels should be taken into account, but it is important to consider interrelationships among and between factors at different analysis levels.

3.2.4 Data collection: methods and their validity

The main data collection technique used in this research is qualitative interview, which is a suitable and very popular data collection technique in qualitative research, in the field of social sciences. It typically aims at discovering the key episodes and the key evidence relative to the research phenomenon (e.g. Baker 1997). It allows an indirect qualitative investigation of corporate environmental management. It is used to gain an understanding of the managers' perceptions of and experiences in environmental management, expressed in their own words. These perceptions and experiences are considered as evidences of reality that the researcher tries to interpret.

Interview can be seen as a process that produces narrative versions of social world. Both the interviewer and the interviewee participate in the construction of these narratives, which are believed to represent the social phenomenon under investigation (see Silverman 1993; Miller & Glasner 1997, referring especially to interactionist research grounds). Miller and Glasner (1997, 100) sustain that there is no reason to understate the value of interview narratives as empirical evidence:

"While the interview is itself a symbolic interaction, this does not discount the possibility that knowledge of the social world beyond the interaction can be obtained."

While qualitative interview can be praised for its reactivity and flexibility, its limit may be that it produces, to some extent, context-specific knowledge. This limit is recognized by Miller and Glasner (1997), who point out that interview is exclusively an interaction between the interviewer and the interviewee. As argued above (by the same authors), the nature of interview as an interaction process does not mean that it is not capable of producing knowledge of the social world beyond such interaction. Like any other research method, the qualitative interview has naturally its limits, which must be accepted and possibly controlled.

The main informants of this research are the managers of case companies. The first contact to the Finnish company was made with the Technical Director, who is currently responsible for operational environmental manage-

ment and its development, within the established strategic framework. The Technical Director gave his consent to the research. He also provided the organization chart and up-dated information about the organizational management, with some suggestions about likely interesting sources of information. These suggestions contributed to the formulation of the list of interviewees, without limiting the liberty of the researcher to contact any representative of management. A request was sent by e-mail initially to twelve managers and to one representative of operational technical services of production. Each receiver of the request responded and kindly agreed to give an interview. The interview of the representative of technical services was later cancelled because the interview candidate gave the lack of time as an excuse. Interview appointments were made in two periods: May 2002 and August 2002, according to the time availability of interviewees (see table 3.1 at the end of this section for a detailed interview schedule). The interview of the Managing Director was subsequently shifted to October 2002 and conducted by telephone, owing to logistical constraints. Interviewees were asked to reserve approximately one hour and a half time for the interview.

The Italian case company was contacted after the interviews of the Finnish company. The contact person was the Quality Director, who confirmed the interest of the company in the development of environmental management and in the research project. The Quality Director told that the company was about to begin the accomplishment of procedures required for the attainment of an ISO 14001 certificate. Later the certification project had to wait because of the acquisition of another dressed pork factory by the case company, and the introduction of a certified quality management system to the new production site. Initially the Italian company had given its consent to the interviews of eight representatives of organizational management. Subsequently, it was agreed that due to the delay in the implementation of the standardized environmental management system, most functional areas of the organization were not yet involved in environmental management, and would not have experiences to tell. The Quality Director suggested the interview of two representatives of the company: The Managing Director and the Quality Director herself. The Quality Director is currently responsible for the practical development of environmental management system in the company. The interviews of the Managing Director and the Quality Director were conducted in June 2003, according to the time availability of interviewees. The interviewees were asked to reserve approximately two hours of time for interview meetings. After the elaboration of the data collected from the Italian case company, the researcher contacted the company in order to conduct a second interview with the Managing Director and the Quality Director. This second interview round added to previously collected data. During the first interviews, the importance

of customers as drivers for environmental certification had become evident, and therefore it was decided that the researcher would hear the opinion of the Retail Sales Director, too.

The data collected inside the case companies was integrated by the interviews of representatives of supply chain. A widespread opinion is that primary production causes the main environmental impact of the food chain. Therefore an interview of a raw material supplier (a farmer in the case of the Finnish company, and a slaughterhouse with livestock breeding activities in the case of the Italian company) was included in the data collection plan. The aim was to explore, from the other side of the relationship, the influence of environmental issues in agriculture, and in the relationship between industry and agricultural suppliers. Big retail trade has formulated quite actively environmental policies, both in Finland and in Italy. It is a key customer of food industry, and therefore its environmental approach and its reflection to relationships to industrial suppliers were perceived as interesting for the purpose of this research. The interviews of a cattle farmer and a representative of a big retail trade company, Kesko Food Ltd, integrated the data collected from the Finnish case company.

Many suppliers of the Finnish meat processing company, object of this study, are family run cattle farms. The name of a family run pig farmer was received from a Procurement Manager of the meat processing company. This farmer has a quality contract with the meat processor. In the Procurement Manager's opinion, the farmer is environmentally concerned. The production capacity of the farm is about 2000-2300 pigs per year. The first contact was made by telephone, and a telephone interview was conducted in March 2003.

Kesko Food Ltd is one of the biggest retail trade customers of the Finnish meat processing company object of this study. Kesko Group has published its first environmental policy in 1990, with the existing one drawn up in 1996, when the company started to build a certified environmental management system. Kesko Food was contacted by e-mail, and an interview was conducted with the Development Director in August 2002.

An additional source of information for this research was Finfood (Finnish food information service), which is a government funded, but independent association. It provides information about Finnish agriculture and food production, and promotes the quality and safety of Finnish food⁴⁴. An Executive Director of Finfood discussed with the researcher about the environmental management of Finnish food industry. The interview was conducted in August 2002. This data has been used in the analysis of research findings.

⁴⁴ <http://www.finfood.fi>.

The data collected from the Italian case company was integrated by the interview of the Managing Director and the Quality Director of a slaughterhouse. Carni Dock is a slaughterhouse owned by two families. It has 50 employees. Its production capacity is about 2000 heads per week. The company is situated in Lagnasco, province of Cuneo, about 50 kilometers from Raspini. The interview was conducted during an auditing visit of Raspini's Quality Director, in February 2004. The scope of the auditing visit was to control the hygiene conditions of the slaughterhouse, and to verify the traceability of products. Raspini has a long supply relationship to Carni Dock, which is also a supplier of controlled supply chain raw materials. The Quality Director of Raspini sustained that Carni Dock was environmentally concerned.

An interview of a representative of an Italian big retail trade did not succeed because the companies contacted either did not respond or communicated that collaboration with research projects does not fit their corporate policy.

Qualitative interviewing is often, and this research is not an exception, loosely structured. Data collection does not follow a rigid scheme of pre-formulated questions, which would be appropriate for a research that tests deduced propositions, but the interview situation can be described as a "*semi-formal guided conversation*" (Holstein & Gubrium 1997, 113). The data collection plan is structured on the basis of research questions, which in turn take the chosen theoretical perspectives and analytical levels into account (see the analysis levels described in the section 3.2.3). The interview question scheme consists of 12 interview topics. The question scheme is complemented by a list of sublevel topics that should be covered during the discussion (see Stake 1995). The interview questionnaire, with the list of subtopics, can be found in appendix 1. Interviews were conducted in Finnish and in Italian.

The research questions (section 1.2) and successive interview questions to be used in the fieldwork were formulated using as a source of inspiration literature and previous research work. The conceptual framework of the research (chapter 2) derives from the literature reviewed, which represents what other scholars conventionally consider important in corporate environmental management. In this phase, the reasoning had some deductive aspects, though it remained far from the rigid procedure of elaborating hypotheses and testing them. Glaser and Strauss (1975) have called analytic induction an approach where the researcher explicitly accommodates existing theories (Manning 1987): he or she tests hypothesis, striving at modifying or updating existing theories on the basis of data collected in an iterative process that ends when the data collected suit well the theory developed. In the present research, the data collection was very much more a flexible process. Relevant literature was visited, filtering it from the vast offer of environmental management, corporate management and business ethics literature. Together with the researcher's

earlier knowledge of and experience in environmental management, and preliminary contacts to the case companies, it contributed first to the formulation of research questions, and subsequently to the elaboration of interview questions. Deductive aspect is that the conceptual framework may be supported or rejected by empirical data; inductive aspect is that data are collected in order to build new or refined conceptual patterns.

Stake (1995) has emphasized the importance of “*emic issues*”, which emerge during the research process. These are issues from the inside of the case, from actors who belong to it. They are unconventional topics for the researcher, but potentially the most interesting ones. Therefore it was acknowledged that issues or new topics transforming pre-established issues might emerge during interviews, which means that respondents were free to highlight experiences and knowledge that they considered important, even if the discussion took an unexpected direction.

Another form of flexibility was included in data collection in order to take the different professional positions and the unique experiences of respondents into account. Different aspects relative to environmental management were emphasized with different respondents. Though interview questions were adapted according to the area of responsibility, it was still likely to achieve comparable data in key ways (Stake 1995; Mason 1996). Interview questions might in some cases also become more focused during the data collection process. The interviewees had an opportunity to check their responses in order to control the accuracy of their sayings. All respondents, thus, received a copy of their responses in a written form.

Other information sources were official documents, press releases, advertisements and products. Such ready material can well be analyzed for theory generating purposes (Alasuutari 1994). Since interviews were conducted in the spaces of companies (offices at production site/sales office), it was possible to observe what the companies and their productive spaces looked like. Site visits have brought to the study realism and insight that otherwise would have been missing, contributing indirectly to the interpretation of the research phenomenon. Important communicative artifacts for this research have also been products, which visible characteristics (like package, product information for consumers), and more broadly the composition of the whole product range gave evidence of the environmental aspects of products.

The present section of data collection is concluded by a synthesis of techniques and data sources used in the data collection (tables 3.1 – 3.6 on the next pages).

Table 3.1: Interviews: the management of the Finnish case company

INTERVIEWS		
The management of the Finnish case company		
Source	Time	Data
Retail Sales Director	23.05.02	Semi-structured interview, face to face encounter
Catering Sales Director	24.05.02	
Technical Director	29.05.02	
Quality Director	29.05.02	
Vice Managing Director	30.05.02	
Business Area Director	30.05.02	
Managing Director of the Procurement Company ⁴⁵	30.05.02	
Logistics Director	14.08.02	
Business Area and R&D Director	14.08.02	
Marketing Director	16.08.02	
Production Line Director	16.08.02	
Managing Director	07.10.02	Semi-structured interview, telephone conversation

Table 3.2: Interviews: representatives of the supply chain of the Finnish case company

INTERVIEWS		
Representatives of the supply chain of the Finnish case company		
Source	Time	Data
Retail trade Kesko Food Ltd, Development Director	07.08.02	Semi-structured interview, Face to face encounter
Agricultural producer	10.03.03	Semi-structured interview, telephone conversation

⁴⁵ The company has founded a service agency that takes care of the planned raw material provision and offers consulting services. The purchase organization has 118 employees.

Table 3.3: Interviews: the management of the Italian case company

<i>INTERVIEWS</i>		
<i>The management of the Italian case company</i>		
<i>Source</i>	<i>Time</i>	<i>Data</i>
Quality Director	04.06.03 05.02.04	Semi-structured interview, face to face encounter
Managing Director	04.06.03 04.02.04	
Retail Sales Director	05.02.04	

Table 3.4: Interview of a meat supplier of the Italian case company

<i>INTERVIEW</i>		
<i>A supplier of the Italian case company</i>		
<i>Source</i>	<i>Time</i>	<i>Data</i>
Slaughterhouse Carni Dock: Managing Director and Quality Director	05.02.04	Semi-structured interview, face to face encounter

Table 3.5: Documents and observation: Finnish case company

<i>DOCUMENTS AND OBSERVATION</i>	
<i>Internal documents of the Finnish case company</i>	
Environmental Report 2001	
Internet home pages	
Corporate Annual Report 2002, 2001, 2000	
<i>Observation</i>	
Observation during visits: sales offices 23-24.05.02; offices at the production site 29-30.05.02/14.08.02/16.08.02	
Communicative artefacts: consumer-packed products	

Table 3.6: Documents and observation: Italian case company

<i>DOCUMENTS AND OBSERVATION</i>
<i>Internal documents of the Italian case company</i>
Environmental analysis 2001
Internet home pages http://www.raspinispa.it
<i>Observation</i>
Observation during the visits to Raspini: a tour in internal production spaces and in the external spaces of the company
Observation during the visit to Carni Dock: auditing visit of the production line
Communicative artefacts: products under preparation, consumer-packed products

3.2.5 Data analysis: methods and their validity

Comprehensive field notes were taken during the interviews, but a tape recorder was not used. Exact words of respondents are not essential, but what respondents mean (Stake 1995). In the reporting of interview answers it was, however, possible to maintain to a fairly large extent the style of the conversation and many expressions used, thanks to the above-mentioned field notes. The researcher read through, controlled, and sometimes put more precisely the field notes immediately after each interview, when the interview situation was still fresh in mind. The original notes have been put in the researcher's files, and they are conserved as a detailed representation of interviews. Naturally, they are available on request to anyone interested.

Due to intervals between data collection periods, data analysis started before having completed the collection. The aim was to have some time to get the initial findings into shape and evaluate them. This work would ground some further questions concerning particularly prominent aspects of corporate environmental management.

Data analysis started by writing down the interview notes in a more complete form. The notes taken in the Finnish company were written up on a PC; each response was codified with the initials of the respondent. Data from documents was also derived, mainly in a literal sense, and written up. The data were organized by associating them with the key concept areas. Data from different sources were combined and edited in order to create a narrative of corporate environmental management in conformity with the established conceptual structure.

The notes taken in the Italian company were written up on a PC following the order and the form consolidated during the analysis of the first case.

Again, a narrative form of interpretation was used to represent the data. The narrative was used to reveal the key characters of the research phenomenon and the patterns of relationships (anticipated or unexpected) among the data⁴⁶.

The analysis continued by a more explicit interpretation of empirical findings, which goes far beyond from repeating what has been heard from various information sources. In Stake's (1995, 71) words, interpretation is "*a matter of giving meaning to first impressions*".

The narrative description formed the basis for conceptual and managerial assertions. In this phase, the discussion shifted to conceptual level. Empirical findings were related to previous conceptual propositions and research findings learnt during the literature review. Confrontation with previous conceptual and empirical argumentations can be made, in particular, with the aim to establish analogies or contradictions, and reasons for them, and to highlight gaps that might be filled. The empirical data may also contain internal contradictions, which must be interpreted.

The conceptualization of empirical findings was, in turn, the bases of the model of corporate environmental management, which originated from the fusion of conceptual arguments, and, thus, represents the principal contribution of this research. Explicit answers to research questions reconstruct step by step the picture that the researcher has sought during the research process. All this aims at contributing to the understanding of the phenomenon under investigation. The research ends with a clear consciousness that there is still much to understand. An effort was therefore made to outline interesting directions for future research.

⁴⁶ The researcher did not opt for an integrated analysis, which consists of the presentation of field material in conjunction with relevant theoretical concepts. Data and analysis are separated in order to enhance the assessment of interpretations.

4 EMPIRICAL FINDINGS: THE ENVIRONMENTAL MANAGEMENT OF THE FINNISH CASE COMPANY

4.1 Perceptions of key change agents

4.1.1 The role of public institutions and companies

The Finnish company perceived that regulative bodies assumed an important role in the determination of environmental management, i.e. in establishing those priorities and measures that business companies take. It perceived that the main task of regulative bodies was building a framework; it should consist of a series of regulations to which companies have to comply.

According to several respondents, the role of regulative bodies is important because companies need to operate in equal conditions. Equality is needed because environmental protection is a question of common good. If regulative bodies did not guide environmental actions, there would be numerous variations on approaches. When environmental measures cause costs, regulations must make the situation equal to all to prevent negligent companies from gaining unfair profit.

The BSE-epidemic was still fresh in the respondents' minds, and it was frequently given as example of recent food scandals, with connections also to environmental issues. The subject of the BSE epidemic emerged as being a direct consequence of unsustainable food production practices. A Production Line Director argued that the BSE epidemic, caused by man, had shown how pressure to lower prices "*led to dangerous waters*". The causes of BSE have, in fact, often been attributed to the malpractice of producers. The question is ambiguous: one counter argument could be that animal diseases have always existed. Changing the argument from the causes of BSE to its effects, he claimed that in Europe, a direct consequence of the epidemic had been the setting of new regulations ("*the BSE bill*"). An adequate control should make BSE-driven and other regulations effective. If something is forbidden, the overall compliance to the norms has to be guaranteed.

The former responses argue for the importance of regulations, and define them as being desirable. However, regulations can also be a source of further complication. According to the Vice Managing Director and the Catering Sales Director, the European Union regulations complicate the business of organic foods, imposing artificial limits to organic farming, and even containing comical aspects (when applied to Finnish weather conditions), which diminish the credibility of the method and make it unattractive to producers. The latter argued in favor of the use of common sense in the development of this product sector (e.g. a faster conversion process). A Production Line Director and the Managing Director of the Procurement Company sustained that the emergence of further complications was due mainly to contrasting regulations. Examples of conflicting norms are environmental and food security legislation, the incoherence between norms that set minimal limits to effective agriculture, in order to distinguish it from apparent agriculture, and norms that impose maximum quotas to certain production amounts. Consequently, the risk is that the different normative requirements overcross, and contradict one with the other. The Managing Director of the Procurement Company affirmed that the regulative measures also risked overlimiting the natural progress of business companies, based as it is, on that primary goal; making money. A Production Line Director agreed with him: he argued that environmental regulations based on political priorities were a potential source of inconvenience. Political interest-based regulations risk leading to extreme positions. The regulations enacted in response to the BSE crisis are a good example of the use of extreme measures: they are based on political reasons, though they should rather be based on scientific evidence. Consequently, the BSE epidemic has led to the production of a huge amount of risk material as defined by EU regulations. These big quantities cause a series of problems: it is impossible to recycle them, and chemical companies do not want them for fear of losing their reputation. There could be safe ways to use them, e.g. as fertilizers, but nonetheless, nobody wants to deal with them for image reasons. Thus, those regulations, which for some aspects are exaggerated, are also a remarkable cause of this problematic situation. Before the BSE epidemic, all parts of bovine animals were utilized, but after the scandal this has become impossible, and the amount of risk waste has increased considerably. It does not only cause physical problems of waste disposal, but it also means that what were previously positive money streams to meat processing companies have now turned to negative. Regulative bodies should consult the representative of the interested sector in order to elaborate functional laws and avoid excessive inconvenience to companies. This approach could generate two important advantages: in the first place, it could decrease resistance among

interested companies; and in the second place, it could lead to the best of results.

The respondents sustained that regulation was not the only important function of public sector, they also sustained that public institutions should assume the responsibility of acting as drivers for sustainability. A Business Area and R&D Director argued that an important task of public institutions was that of guaranteeing to companies the availability of reliable information. Research institutions would be in charge of the production of such information, and furthermore companies could use it in the development of their activities, allowing them in such a way to base their decisions on reliable scientific data.

The company points out that principles and systems of its environmental management are based on the compliance with all current laws and regulations (Corporate Annual Report 2002; Environmental Report 2000). However, the respondents sustained that the role of business companies in ecologically sustainable development was by no means rendered banal by the framework established by public institutions. An active approach that goes beyond compliance was supported for several reasons. The Technical Director sustained that legislation set general and demanding limits, but, nonetheless, the task of companies was that of improving environmental management in society. A Production Line Director observed that the role of companies was important because of their active involvement, and this could lead to more efficient solutions. The role of a company that supports an ecologically sustainable development is that of promoting and supporting production possibilities of pure, domestic agricultural products. The Managing Director of the Procurement Company argued that the company had a key role in the development of the sector where it operated because it was a *"big player"*. The company could, for its part, contribute to sustainability, both by taking care of the environment and by favoring domestic raw materials. The Logistics Director claimed that the setting of regulation-based standards was not sufficient to produce a desired development effect on companies, this because the adaptation to standards made environment a cost factor, while it should have been, instead, a development factor. The Vice Managing Director agreed with him: he, in fact, claimed that in those cases in which the goal was that of complying with a norm there was no real development.

The Quality Director and the Logistics Director argued that an early implementation of a certified environmental management system had made the company an environmental pioneer. However, business companies have the power to do more because they have money. Other respondents sustained that it was quite likely that the interest in environmental issues would grow in society, and even if this was beneficial, it demanded resources from companies.

According to the Quality Director, companies should struggle to improve their environmental performance. The Vice Managing Director and the Marketing Director agreed on the necessity to do more. Companies should take broader environmental responsibility and apply ethical judgment. They should accept endogenous (environmental) limits, and, consequently, begin to move in the right direction. A Business Area Director and the Managing Director of the Procurement Company's opinion was more moderate: the former pointed out that the contribution of a single company to the resolution of nation-wide problems was essentially relatively small. The latter believed in pragmatic environmental responsibility rather than in the propensity of companies to base their decisions purely on ethics, this because the most important task of business companies is that of making sales grow. Environmental thinking is still too young, and has not found its place in the full picture, hence it sometimes seems that environmental responses are essentially casual, i.e. that they are guided by a *"hit and miss"* logic.

4.1.2 The role of other social actors

The Finnish company found various arguments both for as against a multi-lateral vision of sustainable development. Some respondents sustained that companies should struggle to improve their environmental management. All companies operating within the same product sector should develop, as a whole, their approach to ecological sustainability, within this optic, it would not be right to expect single companies to act on their own. Company-specific solutions are not particularly interesting because environmental issues do not generate competitive advantage.

The Managing Director of the Procurement Company identified some of the limits to the active social role of companies as environmental drivers. The first limit was the credibility problem, it arises when companies express their opinion and experience to other social parties. Interlocutors would think that companies just want to ensure their private benefit. The lack of trust in companies makes it preferable that public institutions handle these questions. Public institutions, too, have their own interests, like any social actor. In particular, regulators might be influenced by a need to show something to electors. The second limit was the capacity of companies to resolve complex environmental questions. The Catering Sales Director agreed on the complexity of environmental management, which, he observed, might lead to abstract and ambiguous solutions. According to the Managing Director of the Procurement Company, there is, in any case, always somebody that either interprets your positions as a reflection of self-interest, or complains of some ignored critical

aspect. Altogether, these limits make environmental issues very similar to any other normal business problem. For example, if one decides to make an investment in order to increase productive capacity, there is always someone who complains of increasing inconveniences. It is easy to take a stand on small issues because near to one's own field of experience, but environmental questions should be interpreted as global problems; this would question the whole of the global food distribution system. He took as example food overproduction in Europe and asked: *"What right do we have to be so selfish?"* The subject of food production is broad also from a national point of view, it, in fact, covers the maintenance and development of domestic food production, the cherishing of cultural traditions, and the preservation of Finnish landscape. Society has to tolerate certain inconveniences in order to guarantee the continuity of domestic food production, create employment, and preserve Finnish rural community. Only then a credible Finnish agricultural production capacity can be maintained. A completely clean primary production does not produce much benefit to national economy. Thus, the food production chain should not be oppressed by impossible and unrealistic requirements. This makes the development of agricultural activities and rural communities an interesting challenge.

Another issue was that by which business companies could act as drivers for sustainability by influencing consumers. According to the Retail Sales Director, companies can start a positive mechanism that enhances the environmental management of the whole food sector. Both public institutions and consumers have a key role in the mitigation of environmental degradation. He measured the role of companies by claiming that a role of social responsibility fitted better retail trade than food companies because trade operates closer to consumers. He perceived Kesko Food as being a leader in social responsibility issues, and gave it as an example of proactive companies. There are ways to involve consumers, e.g. by organizing collection points for used packages. Thus, this type of initiatives belong to trade but not to industry. The Technical Director, on his part, argued that the company adapted, through trade, to the behavior and to the preferences of consumers. Public institutions should involve households in sustainable practices, e.g. by regulating the sorting of household waste.

The role of consumers as environmental drivers was criticized for two reasons. First, consumers should not be held responsible for certain problems. In fact, a Business Area and R&D Director claimed that it was unfair to push on the consumer too much responsibility for the environmental impact of products because there is a basic level that all companies are enforced to reach: they must guarantee that the products meet acceptable standards. Moreover, they should be responsible, whenever they have the choice, of adopting an

environmentally benign alternative. It is not fair to find environmentally unacceptable products on the shelves of food stores because consumers should not be expected to assess whether products are safe or not. They should be able to choose on the basis of taste and other similar product qualities. The second argument against an excessively active role of consumers as environmental drivers was that they do not have adequate information. The Managing Director of the Procurement Company sustained that modern man has limited access to a correct information on agriculture and its economic function. Society has grown away from its rural roots, and as a consequence, agriculture is now interpreted and understood on the basis of wrong criteria. This problem emerges even in rural territory: initially rural communities grew around stables, but when farms expanded, communities started to complain of inconveniences. A modern urban consumer is distant from the realities of agricultural production and, thus, has unrealistic ideas about it. Public opinion can be distorted because it is affected by the lack of know-how and knowledge. Consequently, consumers associate living conditions of farm animals with human living conditions, and, as a result, their expectations are too high: pigs are expected to be treated like cats, but productive reality is different.

The Managing Director did not consider single consumers, but he sustained that consumer associations could act as key agents of sustainable development. A continuous environmental debate is essential to development, and consumer associations can contribute in keeping this debate on agenda. The Managing Director of the Procurement Company agreed on the importance of public debate: he sustained that, generally speaking, the fact that environmental issues were debated within society was positive because a debate can promote pragmatic environmental thinking. The Catering Sales Director was particularly favorable to the diffusion of environmental concern, he believed that sustainable development was a concept positive to all social parties because it represented an advantage to companies, consumers and society as a whole.

4.2 Opinions about change forces

4.2.1 Perceived influence of external stakeholders

The respondents were asked to name the most important external environmental stakeholders of the company. The most frequently mentioned stakeholders were: regulator and authorities (mentioned seven times), customers and consumers (mentioned six times each). The responses suggest that other

noteworthy environmental stakeholders are: farmers and competitors (mentioned three times each), owners (mentioned two times) and finally society, industry associations and package industry (each of which was mentioned once). Local community and environmental pressure groups were not listed among the most important environmental stakeholders. A Business Area Director observed that the large dimensions of the company made it impossible to design activities only on the basis of local preferences. The Technical Director, in turn, sustained that, in Finland, the risk of conflict with environmental pressure groups was low. He also argued that they should aim at the right target, which would be consumers.

4.2.1.1 Regulative bodies and authorities

The Technical Director sustained that the Finnish food industry had to comply with severe environmental regulations, and considering the current institutional requirements, the company managed its environmental issues well. According to the Vice Managing Director, regulations reflect the expectations of society.

The Managing Director of the Procurement Company argued that environmental regulations had both direct and indirect effect on the company. Indirect effect derives from norms that regulate agricultural production. A Business Area and R&D Director agreed on the importance of indirect effect: he argued that several environmental aspects concerned raw materials, and that social and institutional pressure determined their importance. She underlined the importance of the European Union because the company pays attention to issues that may influence its image. One such issue is the transportation of animals, the company seeks to develop it because it is an issue of current interest.

The importance of local authorities came up in some responses. According to the Technical Director, local authorities are the most important environmental stakeholders in regards to the issue of the use of water and the use of wastewaterworks. A Business Area and R&D Director highlighted the issue of the controls at the production site (the control of hygiene, production lines, packages and final products). The control functions are carried out by local authorities (municipal veterinary surgeons).

The importance of regulators and authorities was, predictably, mainly based on their coercive power. A Business Area and R&D Director sustained that regulative bodies were always important stakeholders from the managerial point of view, and environmental management was not an exception. Several respondents perceived that the importance of regulative bodies was based on their power to establish procedures that must be observed, like license applica-

tion procedures. A Business Area and R&D Director claimed that, from the regulative perspective, The Ministry of Agriculture and Forestry, and the European Union were key stakeholders because they established the control procedures of food production.

A Business Area and R&D Director sustained that the relationship between the company and public authorities was not limited to control procedures, but had also collaborative features. The National Food Agency is the main partner and collaborator in environmental issues, it is informed of relevant decisions the company makes, even if this is not obligatory. Other collaborative relationships are established with veterinary surgeons, they give expert opinions e.g. on the development of animal transport vehicles.

4.2.1.2 Customers

The Logistics Director argued that environmental values had been introduced in the company to respond to external expectations. The origins of environmental management are in the perceived customer pressure. Top management has promoted environmental values in the company because these issues, in recent years, have become important to customers (i.e. retail trade and catering). The environmental approach of customers is partly astute communication, or eyewash, which means that they decide what they want to tell people, and use environmental issues to improve their image.

According to a Business Area and R&D Director, and the Managing Director, the environmental policies of customers might demand certain environmental measures from suppliers. The company is aware of the environmental programs of central retail trade companies, and knows that their implementation also sets requirements to the food industry. A Business Area Director and the Retail Sales Director perceived that the Finnish retail trade took it as being self-evident that the company had an ISO 14001 certification. The attitude of trade to environmental issues is good. Retail trade simply expects that the company has a certification, but since price is the determinant factor, among other potential factors, the company does not use the certification in marketing. According to the Quality Director, customers manifest their interest by asking the sales organization about the environmental program or certification. He found it difficult to say if the lack of certification had a negative influence on business. The environmental relationship of the company to customers is based on standardized management system, which equally affects the relationship of the company to its suppliers.

According to the Catering Sales Director, customers pay attention to the environmental approach of the company, and manifest it by asking if the company has an environmental program. However, they do not go into detail and examine the contents of the program. The contents might become effectively influential if the tenders of two supplier candidates were equal in monetary terms. He affirmed that cost criterion was the priority and always decisive. However, customers are very interested in high quality and organic products. The given impression is that public administration, as a catering client, is particularly interested in organic products. Customers generally want Finnish meat, which satisfies Finnish quality criteria. Customers are interested in the welfare of farm animals, and therefore pay a lot of attention to such issues as the living conditions, the feeding and the growth of animals (e.g. antibiotics, cages, etc.). According to the Retail Sales Director, the company has a solid position because retail trade trusts the company and its products.

The Logistic Director and the Retail Sales Director sustained that customers were not demanding additional environmental improvements. The latter argued that the time was not ripe for visible environmental actions. It is likely that environmental issues will assume more weight in the strategies of retail trade companies because their social importance will increase. However, big and fast changes are excluded because food sector is a slowly changing sector.

4.2.1.3 Consumers

The Retail Sales Director and the Technical Director acknowledged the importance of consumers: the former sustained that products had to meet with consumer expectations; the latter argued that Finnish consumers had well defined opinions which effectively influenced the environmental responses of the food industry. According to the Vice Managing Director, the idea that a consumer has, of a product and of a company, is based on the capacity of the product to meet his/her expectations. For the moment, consumers do not demand more attention to environment, but the company's way of action must be accepted by consumers.

The Retail Sales Director sustained that the company did not perceive pressure, but nonetheless, neglecting environmental issues was not convenient. Finnish consumers do not question the environmental quality of products, in this sense they seem to be less aware of the environment than Swedish consumers. The Marketing Director observed that the buying behavior of Finnish consumers was similar to their Swedish counterparts: environmental aspects did not affect their choices. The Logistics Director sustained that price was decisive in buying situations. The Managing Director of the Procurement

Company agreed, he claimed that the perception of consumers on agricultural production did not influence directly their food buying decisions. Consequently, food companies cannot choose a certain price level for their products if the consumers themselves do not accept that price. A majority considers the ethical considerations of agricultural production “*stupid*”, and does not find it morally problematic to deviate from them. A Business Area and R&D Director observed that the food sector was generally not seen as very problematic from the environmental point of view, this because food making was perceived as a familiar task, and also because people knew that chemical substances were not used, as in other industrial sectors. Many consumers consider the food industry separating it from the rest of food production chain, and, consequently, do not associate food processing with agricultural production. Even consumers that consider the integrated food production chain think that the main impact is caused by agriculture.

The Vice Managing Director argued that consumer preferences influenced not only the intrinsic characteristics of food products, but also packages. The Managing Director and the Technical Director claimed that consumers and trade ultimately chose the packages. The former claimed that a Finnish consumer did not look for the most energy efficient package. Packages are indispensable because retail trade has given up service desks and sells mostly consumer packed products. On the other hand, product waste has diminished because the quality of packages has improved: the better the package, the better the product is protected. The latter pointed out that in some cases, the preferences of consumers might exclude an environmentally friendly alternative because importance was given to other aspects. A Business Area Director had a different view, he sustained that both consumers and trade paid attention to packages and gave negative feedback if their amount was excessive.

Some respondents believed that consumers trusted Finnish food products, though it might be naïve to do so. Local traditions are a determinant factor in food buying decisions. Moreover, consumers trust that Finnish farm animals are treated well, this makes unnecessary additional programs of ethical meat production. The Managing Director of the Procurement Company argued that the environmental expectations of consumers were mixed with food healthy and animal breeding considerations; what animals have eaten, how they have been treated (e.g. hormonal treatments can be considered unethical), and what methods have been used in food processing. Consumers consider the welfare of animals in general, but not when they buy food products. They trust familiar brands, and if a problem emerged, the brand would have negative repercussions. The Logistic Director believed that consumers were interested in aspects like the health and the purity of products. A Business Area Director listed several aspects that consumers consider in their buying decisions, like

good taste, healthiness, origin and functionality. “*The competition for the souls of consumers*” takes place by the quality and the taste of products. According to the Managing Director, it is rather common that consumers in different countries prefer domestic foods. He gave as an example the behavior of English consumers after the BSE scandal: they still trusted domestic products, but valued local products more than before the scandal. Some respondents believed that consumers identified domestic foods with environmentally friendly and safe or even organic foods.

The Managing Director claimed that Finnish origins (associated with purity and product security) did not have weight abroad. On the basis of research data, it is known that Swedish consumers consider Finnish foods as the second best, after their domestic foods. In Russia, Finnish foods are quite well known, contrary to the Central Europe (e.g. Germany). The Marketing Director claimed that there was not enough money to market Finnish foods to the Central Europe. Environmental issues can be used in foreign marketing, but with certain reserves. First, there is a popular misbelief that by which, only because something is Finnish it is special. Second, meanings change in different contexts. For example, some research findings suggest that French consumers find the images of Finnish nature oppressive because of the silence and the absence of people, while Finnish consumers perceive in the same images peace and silence. Finnish foods would not sell abroad because of their origin, and therefore, a more convincing selling argument would be needed. One possible way to add value to Finnish foods could be organic certification, but the precondition is that Finnish organic production develops.

The Catering Sales Director perceived that the general interest in environmental issues was a settled matter because the period of higher interest had passed. In the Marketing Director’s opinion, environmental awareness has come to a quiet phase a couple of years ago. The speed of development has started to slow down in late 1990’s. The vivid debate has dried up, and consumers are not as environmentally aware as they used to be some years ago. There is an imminent need for debate to avoid the loss of interest. Big upheavals would stimulate it. A substantial threat to the development of organic food is the problem of credibility: organic production is a very vast concept which can create some problems, like should a product that comes from the German Ruhr-area be called organic at all? Environmental certification is one possible driver for a vivacious debate, though the interest is not likely to reach the past levels.

The Vice Managing Director and a Business Area and R&D Director, instead, believed that environmental values would have more weight in the future. This kind of development would be positive, and an increasing level of

expectations useful. The need of consumers would be the most efficient driver for an increasing strategic importance of environmental issues.

The company sustains that as a producer of staple food, it has to constantly gather market information, and follow accurately the general development trend. On the basis of this information, it develops the product range and the whole business (Environmental Report 2000). According to a Business Area and R&D Director, the starting point is that the company is interested in knowing everything that moves consumers. The BSE scandal was taken as example: when it began, the company was interested in the reactions of consumers to that type of situation. It is interested in knowing the attitude of consumers, on regards to the environmental quality of products, and likewise, in presence of factors that hamper the consumption of its products, like the diffusion of vegetarian diet. Environmental issues could, in these cases, influence product development and product range.

The Marketing Director found it quite difficult to determine the overall attitude of consumers towards environmental issues (the attitude at “*roof level*”). Consumers participating in group debates are generally very critical of environmental issues and favorable to environmentally benign solutions, but these attitudes do not manifest themselves in consumption decisions. Consumers need to take a stand on extremely concrete issues. Comparing the information on the same issue at different moments makes it possible to determine if the interest in environmental aspects (of packages, their disposal, etc.) is increasing or decreasing (a “*thermometer type*” test). A basic product test is taken eleven times a year on a sample of 400 consumers, these are asked to use the products at home for a number of days. The products are evaluated with the help of basic and integrative indicators. The former are fixed while the latter vary each time. An integrative indicator measures an issue of current interest. A question like: “*Do you think that package materials should be decreased?*” could be used to measure the importance of environmental aspects of packages. Attitudes to environmental issues (like the example above) are significant at annual level, they do not change very quickly.

4.2.1.4 Other noteworthy stakeholders

The respondents mentioned also: farmers, competitors, owners, society, industry associations and package industry. Society was mentioned once because of the relevance of social expectations, though they were defined as being low. Industry associations were mentioned because they are forums where companies can have their voices heard. The attitude of package industry was seen as being important to the reduction of the environmental impact of food chain.

A Business Area and R&D Director sustained that raw material suppliers were, from the process perspective, the most important environmental stakeholders. According to the Marketing Director, the company is conscious of its social responsibility because of its close relationship to agriculture, in virtue of this relationship, environmental concern emerges naturally, and fits with the activities of the company. The Managing Director of the Procurement Company sustained that meat suppliers were among the most important environmental stakeholders because they were influenced by environmental regulations and the opinion of consumers. In the first place, many agricultural subventions bear environmental conditions. Secondly, environmental issues can affect the prices of agricultural products.

A Production Line Director and the Logistics Director included competitors in the list of important environmental stakeholders. Their response was based on the possibility of establishing collaborative relationships with other meat producers.

The Managing Director and the Marketing Director included owners in the list of important environmental stakeholders. They are always important stakeholders. The company has close contacts to shareholders and is strongly tied to the Finnish way of thinking. The interviewees are asked to evaluate the influence of environmental management on the stock value of the company's shares. The responses were rather unenthusiastic. Though it is correct to present a public environmental program, it does not increase share value - at least not directly. The majority of investors does not perceive any extra value. The company's shares are not changed much. Shareholders may gain additional value from the commitment of the company to Finnish raw material because their (i.e. owner/producers) primary objective is to get their products sold. In the meat processing sector, product safety and disease free production are significant determinants of share value. Consequently, safety problems or animal diseases may make the value fluctuate. Negative information and an indolent management of environmental issues would soon decrease share value. The Managing Director of the Procurement Company distinguished the ethical effect of environmental management from its cost effect. The ethical side does not affect share value, but environmental actions often improve cost efficiency and in such a way contribute to generating higher profits.

4.2.2 Opinions about managerial voluntarism

Several interviewees believed that the interest of top management was crucial to corporate environmental responsiveness. According to the Sales Directors, and the Managing Director of the Procurement Company, individuals are im-

portant drivers for any kind of organizational development. The Vice Managing Director sustained that corporate environmental responsibility depended, to a large extent, on the individuals who held managerial positions: they could make decisions that affected organizational practices, and create norms of behavior. A process of interaction between management and organization changes slowly organizational behavior because “*value issues*” develop slowly. Sensible environmental change could be imaginable only as a result of an illumination, comparable to a religious awakening, at the top management level. The Quality Director and a Production Line Director agreed on the importance of managerial attitudes. Managerial views on objectives of organizational development influence environmental management. The former also argued that, at the moment, the attitude of top management to environmental management was positive. According to a Business Area Director, managers transmit their personal interest in certain issues to the organization: “*you achieve results that you are interested in, and measure them*”.

Several respondents claimed that the role of the Managing Director had been important in the initial phase of environmental management. Environmental management is an issue that involves the whole organization, and therefore the approval of top management is important. The Managing Director has introduced to the organization the currently acknowledged values. It is easy to commit to them because they make you feel that everything is in order.

A Business Area and R&D Director perceived that the Managing Director had been very active in the initial phase of environmental management, which was also a period of most remarkable changes and most visible environmental achievements. The Managing Director had actively introduced environmental management, but after the initial phase, had withdrawn from its development. However, it does not risk draining because it, nonetheless, continues to be present, within the framework that had been built, and in accordance with the goals that had been set. The organization has learned a lot during the past years, and it has built a system that enhances continual improvement, but, at the moment, environmental management is, nonetheless, in a quiet phase.

The Managing Director was asked to describe his personal involvement in the development of environmental management. He affirmed that his personal influence on the introduction of environmental values in the organization had been a strong one. He had been actively involved in setting organizational objectives and in connecting environmental values to these objectives. He listed two main drivers that determined the company’s environmental approach. First; consumers began to appreciate environmental improvements. This occurred during the first part of 1990’s, when the organization had undergone a sensible adaptation phase. In that period, Finland was about to become a member of the European Union, and both the company and the

brand needed a strong development. Domestic production and the safety of products became core values, but they were too elusive and needed concrete contents because, otherwise, the company would not have been able to prove its commitment. As a consequence, the domestic nature of production was connected to environmental values. Second; environmental values were not perceived as conflicting with economic objectives. On the contrary, many environmental actions, like recycling, the reduction of packages, waste and water management, were perceived as being cost savings.

The Retail Sales Director distinguished two ways to influence environmental management: first, individuals having hierarchical power can make decisions within their area of responsibility; second, individuals can “sell” their ideas to managers with decisional power. The Managing Director observed that personal characteristics of managers can be rather decisive because the organization is formed of rather independent business areas. The managers are aware of formal organizational goals that function as guiding rules.

The sales organization perceived that the good level of environmental management was, to a great extent, a merit of the production management. According to the Technical Director, the willingness to do things well prevails in the organization. The local enterprising spirit appreciates good work. The Vice Managing Director claimed that the importance of preserving a healthy and viable environment was a position accepted by any man in his right mind. *“Who would spoil the environment on purpose”*, he asked? The company has the preconditions for improving its environmental management because human resources are good and financial investment capacity is available. What is needed is willingness and interest.

According to the Managing Director of the Procurement Company, and the Technical Director, environmental behavior exceeds compliance (e.g. wastewater management). However, organizational size sets a limit to initiatives. Measures would not be taken to reach a small market segment because the company needs to reach all consumers. Environmental issues influence business activities, but it is also true that *“stupid”* initiatives cannot be taken.

4.3 Perceived motives

4.3.1 Managerial, organizational and external values

The Vice Managing Director and the Retail Sales Director gave importance to the ethical aspect of managerial attention towards environmental issues. They

argued that management's environmental awareness was high. The Catering Sales Director underlined the role of individuals by sustaining that values motivated individuals, and determined their disposition to shoulder the responsibility for environmental harms. However, there are certain restrictions that have to be taken into account: in modern industrial organizations, a lot depends on the availability of eco-efficient technologies, these enable behavior according to ecological values, a problem that concerns mainly big companies. The approach of the Quality Director to managerial values was more reserved. He sustained that managerial values had not stimulated environmental improvements, but environmental issues had drawn attention because they were related to money.

Most respondents sustained that environmental issues had significance in their everyday lives. Interestingly enough, only a Business Area and R&D Director explicitly denied any personal interest in environmental issues, and the Managing Director of the Procurement Company did not take a stand. The former believed that environmental concern could be significant in some specific occasions, like the purchase of a new house. She argued that her attitude to environmental issues was critical, and that critically thinking, many solutions lost in credibility. E.g. organic foods are claimed to be superior to conventional food products, but critically thinking, they are not environmentally better than certain conventional products. The real environmental impact of products or activities may be analyzed by life cycle analysis.

Many common sense-based observations on the importance of environment emerged. The Quality Director claimed that his personal environmental values were very pragmatic, based on the logic of common sense. These values affect behavior by imposing rules like *"pick up a piece of rubbish a day"*, or simply *"do not dirty the nature."* The Marketing Director sustained that if he participated in a debate on environmental issues he supported the environmentally more benign solution. In daily life, environmental concern influences certain routines (he e.g. avoids overpackaged food products). The Technical Director and the Catering Sales Director claimed that among other small daily considerations, their most ecological habit was the sorting of waste. The Managing Director excluded explicitly a *"who cares"* attitude and sustained that he was neither indifferent nor did he think that own doings did not count. However, high incomes tend to lead to a more expensive life style, (concerning living, hobbies and leisure). A Production Line Director claimed that the effect of environmental concern was that he felt guilty. To the Logistic Director, environment was not a separate issue, but environmental values belonged to the set of personal values. The respondents listed different sources for their personal environmental approaches. Some mentioned rural background, sustaining that the importance and the value of natural environment

was high to a person that had grown up in the countryside. Living in the countryside makes people understand the importance of environmental preservation. Family, professional experiences and public opinion were other drivers for environmental awareness. Some respondents took position on the congruence between personal and organizational values. The Logistics Director observed that he had personally experienced conflicting situations, he affirmed that twice, in the past, a conflict between personal values and organizational culture had contributed in his decision to change occupation. A Business Area Director sustained that a precondition for psychological well-being was that there was no marked conflict between the individual and the organization he/she works for. In the case of a significant conflict, the only solution would be that of changing job. The position of the Quality Director was different, he argued that a big company was only a place where you went to work, but you were not necessarily very committed to your job.

The company espouses the following list of organizational values:

1. Customer focus. The company facilitates the business operations of its customers. Therefore customers are satisfied and choose the company as their partner.
2. Profitability. Constantly good financial results. Product and service are based on good work performance.
3. Cost efficiency. Success is due to high cost efficiency.
4. Continual improvement. Development of operations faster than competitors.
5. Professionalism. Constantly rising competence level and a systematic training of employees.

The integrated quality and environmental policy is based on the following objectives:

1. continual improvement of productivity;
2. continual improvement of profitability; and
3. mitigation of environmental impact.

A Business Area and R&D Director sustained that espoused values were formulated according to the values perceived in the organization. The logic has not been that of finding certain values and to instill them in the organization. There is no need to diffuse values among organizational members because they are already diffused. Employees have to be aware of the values that the management wants to pursue. The Managing Director believed that employees regarded environmental management as a part of activities: he was not able to evaluate how it had been internalized, but he sustained that it was not questioned.

The Sales Directors emphasized the importance of shared values and mutual trust, based on the belief that people are proud of doing their jobs well and

have adequate technical skills. Organizational relationships are based on respect of people and individuals. According to the Vice Managing Director, the company appreciates honest and straight people. The management is convinced that the company is guided by morally credible and economically efficient values, both regarded as the basic elements of companies that, in the long term, thrive. In virtue of shared values, organizational members know how they are expected to carry out their work, and they can commit to collective values. Every course of action is consistent with common values.

Though there are no environmental values in the company's formal mission, several respondents claimed that environmental management was, nonetheless, based on values. The company does not think exclusively of euros, but has also other values. Environmental dimension is always integrated in those values the company wants to pursue. Environmental management was regarded as being a positive issue in the company itself. The task of management is conciliating technological development with environmental values. Certifications and indicators are not intrinsic values, this is exemplified by an early introduction of environmental values: they had first been introduced in the early 1990's, and environmental certification in 1996. The Managing Director of the Procurement Company was satisfied with the ethical side of activities: he claimed that, generally speaking, the relationship between man and the nature was good. He wondered if ethical principles could ever be established world-wide, and, also, argued for a more pragmatic approach to environmental management.

The Sales Directors perceived that environmental management was based on ethical principles of general nature. Environmental ethics is not a core principle to a big industrial company. However, environmental management is, by no means, neglected: environmental concern is not rhetoric, but the company believes that environmental issues must be well managed. The organization has not internalized purely green values, but what is pursued and valued is profit (*"a deep love to money"*). According to the Vice Managing Director, the company would not neglect environmental issues because high moral and regulatory compliance were the carrying principles of the whole activity. The company would soon be obliged to shut down if the moral standard was low and the ethical basis of business activities questionable. He accused environmental criminality and indifference, sustaining that the company did not want to have absolutely anything to do with them. He also pointed out that all kind of waste was extremely harmful. The Managing Director minimized the ethical sense of the company, arguing that it was useless to make show of sanctity: business companies did not generally pursue first and foremost ethical objectives, but they did have to take public opinion into account, and adapt their activities to it. The Quality Director perceived

that economic objectives prevailed over environmental objectives, these could lead to a value conflict. He gave as an example a conflict between growth and ecology, which could become accentuated by water scarcity.

The Managing Director and a Business Area and R&D Director affirmed that the ethical side of food production was strictly connected to the link between agriculture and industry. The Technical Director and the Managing Director of the Procurement Company sustained that ethical treatment of farm animals was important, basically because it allowed the company to obtain a better quality of meat. The ethical treating of farm animals avoids the production of “*stress meat*”. In Finland, farm animals are generally treated well, and nobody wants to be cruel or spoil nature. According to the Retail Sales Director, products are not, strictly speaking, an ethical question to the company. The core value is consumer satisfaction, pursued by keeping on high quality and purity standards. The share of organic products is small because conventional products are qualitatively almost as good as them. The Catering Sales Director agreed on the importance of high quality to products and activities in general.

A Production Line Director explained the development of environmental management by global economic and ecological events. He believed that statistical variation was one way to explain natural catastrophes, but a deeper investigation would imply that the impact of human activities was taken into account. The Managing Director identified some socio-economic trends that favored the increasing environmental awareness of companies. The change of attitudes within society has been remarkable during the past ten years. The concern for the future of the planet has increased. Moreover, the price of key energy sources (fuel, water, etc.) has increased, and it is foreseeable that it will keep on increasing remarkably, with a growth rate that exceeds the general inflation rate. There are also opposite trends, like the increasing amount of packages, and especially the increasing use of plastic materials, which are imputable to the demand of consumers.

4.3.2 The profit-oriented side of environmental responsibility

4.3.2.1 Importance of eco-efficiency

Many respondents emphasized the absolute importance of cost efficiency in all organizational activities. Consequently, it was also strictly connected to environmental management. A Business Area and R&D Director distin-

guished basic environmental issues from ulterior improvements. The former must be, at any cost, well managed (like certain food safety issues), without discussion and regardless of the company's profitability. The latter must be somehow advantageous to the company, this makes the economic aspect of environmental actions more pronounced: the company expects either cost saving or improved image.

Several respondents perceived costs as the "*number one*" criterion of organizational development. Therefore environmental management has to contribute to the improvement of activities either by generating business or process benefits. So far, environmental management has improved profitability, e.g. in virtue of a diminishment of relative water consumption. The task of environmental management (system) is that of fostering the company's success, rationalizing activities. Examples of cost efficient approaches are heat recovery and wastewater investments, made first and foremost, for cost saving purposes. The cost of waste disposal will increase in the next 20 years, and therefore the amount of waste has to be controlled. Likewise, there is a need to control cleaning and cooling processes and eliminate the worst waste points. Many environmental issues draw attention because they are, at the same time, cost efficiency questions. Generally speaking, environmental management makes economic sense in business activities. It affects taxation, which in turn, is proportional to production quantities. Economic efficiency obliges the company to develop environmental issues all the time, the cost approach makes it possible to take environmental aspects concretely into account. Nonetheless, environmental management should not be merely seen as an answer to a question of costs.

Several respondents identified cost efficiency with the environmental efficiency of activities. Economic efficiency is a good criterion, from the environmental point of view: when activities are carried out in an economically efficient way, they are also environmentally friendly. Cost efficiency supports healthy organizational structure and environmental efficiency, and drives the organizational development in the right direction. There is a positive correlation: if environmental management is economically viable, it is also environmentally efficient. Fortunately, environmental improvements are often also economic advantages, like water and energy savings. Environmental improvements are not tradeoffs between ecology and profit, and growth and ecology are not necessarily conflicting goals because technological progress enables the use of increasingly eco-efficient equipment. The way to avoid conflicts is to take, in the planning, both aspects into account. However, the Quality Director observed that cost efficiency approach did not allow the introduction of innovative and creative environmental solutions.

The Retail Sales Director sustained that the company had to focus strongly on profitability because of the owner-based nature of business. The Catering Sales Director argued that, in the whole meat processing sector, there prevailed the belief that resources must improve profitability or, otherwise, they were not allocated. Similarly, the Vice Managing Director claimed that the competitive situation and the limited resources demanded cost efficient solutions. According to the Marketing Director, the food sector is characterized by low margins, which make efficiency a key factor. He connected the efficiency requirements to sector characteristics and to the size of the company. A Production Line Director sustained that globalization was a driver for eco-efficiency because it forced companies to grow: in the global market, big companies were destined to grow, small companies would survive in market niches, while middle sized companies were doomed to die. Another driver for growth is the intensifying preference of big retail trade companies in doing business with big suppliers. The company is big in the Finnish and Nordic market, but too small according to European standards. The Technical Director confirmed the growth objectives, and claimed that the market situation imposed on them. The Managing Director perceived that the price competition within the sector was becoming tougher, and the response of the company was the efficiency of the whole supply chain.

Though the company gives importance to cost efficiency, it is not a trend without limits. The Marketing Director pointed out that the company did not pursue efficiency at any cost and by all potential means. The company does not e.g. buy foreign raw materials, even if they were available at cheaper prices than domestic ones. Cost awareness affects logistics, transport and processes. The Retail Sales Director argued that profit was not sought at any cost, but the main objective was stable, sustainable activity and profit. A Business Area Director agreed on the importance of sustainable profit. He claimed that greedy objectives were harmful to the brand and, consequently, to the company.

The Retail Sales Director perceived that costs were more important than environmental protection in investment decisions. The lack of purely environmental, voluntary investments supports this opinion. The company makes investments in technologies that improve eco-efficiency. The Vice Managing Director gave as an example that the control of water consumption had implied investments in improved technologies. The Retail Sales Director argued that in some cases environmental actions might increase costs, but e.g. more efficient water and energy use generated cost savings. A Business Area Director and a Business Area and R&D Director observed that the cost/benefit ratio of investments had always to be taken into account. Companies have limited resources and economic benefit prevails. Investment decisions must be

carefully justified. Similarly, the Logistics Director argued that investments were always an economic issue: could we allocate resources to determined purposes, as e.g. heat restoring, composting, or the processing of side products? He sustained that the company had always regarded the above-listed issues as central, and that it had been a pioneer in their management. According to the Retail Sales Director, the management makes investment decisions on the basis of technical and quality improvements, and takes environmental aspects into account as secondary factors. The Quality Director, instead, distinguished between productive and environmental investments, and claimed that there was harsh competition between the two.

A Business Area Director looked at the investment question from the opposite point of view. Profitable companies make environmental improvements, while unsuccessful companies cannot afford them. A Business Area and R&D Director and the Logistics Director shared this opinion. The company allocates resources to environmental improvements if it is doing well and has resources available. However, these improvements have to be advantageous to the company. *"If money does not come, then nothing else will be done either."*

According to the Managing Director of the Procurement Company, environmental improvements are not measurable one by one, but integrated to the level of environmental management. Similarly, the Marketing Director argued that environmental management contributed to the development, in the right direction, and that it would have been wrong to think that it was simply a question of costs. Single actions are not important, but what counts is that *"the train has started to move, and that it goes to the right direction"*. Some solutions might appear as a disadvantage, but in the long term, environmental management will not have negative effects.

A Production Line Director and the Catering Sales Director believed that environmental issues were not sources of competitive advantage. The Quality Director sustained that environmental certification was a success factor to the whole sector: he gave as example the Finnish forest industry, which had been able of turning certification into an advantage.

The Logistics Director and a Business Area Director argued for the importance of good environmental management for the company's survival. The company has, for its own sake, to bear responsibility for a good environmental management. The company has *"an axe to grind"*: its survival and profitability. If environmental issues were neglected, the company could not have carried on with its activities.

4.3.2.2 Importance of environmental management to corporate and brand image

Several respondents sustained that environmental management influenced the image that people formed of the company and of its products. An important driver for environmental management is its effect on corporate image. The company pays attention to factors that influence its image, and therefore takes into account social and institutional pressure on agricultural production and on the transport of animals. Generally speaking, Finnish food companies manage environmental issues well, and the company ranks above average. The name of the company should evoke positive feelings, and environmental management contributes to their evocation. It is fundamental that products are good and of constant quality, and that consumers are satisfied with them. Consumers are interested in the welfare of farm animals, an aspect that can contribute to the image of products and the company. Some initiatives are planned for image purposes, and image is one of the reasons for starting collaboration with external stakeholders. The question of image can be related also to the impression that a visitor gets of the company: it is important that the production site looks clean and is in good order. Environmental management can contribute to the good management of production sites.

The effect of environmental management on corporate image was perceived as being positive. A Production Line Director observed that the taste perception of consumers had a greater effect. The implementation of certified environmental management system increases the trust of farmers and customers because they see that the company acts in a responsible manner, and takes care of environmental issues. Through environmental communication, the company maintains a good image. The Managing Director of the Procurement Company and the Marketing Director sustained that environmental management contributed to the improvement of image, but it was not possible to calculate the profits it generated. The company recognizes the effect of environmental management on image, therefore it wants to have original marketing ideas, and does not mimic successful initiatives of other companies. The Quality Director observed, in particular, that dairy sector managed its environmental image better than meat processing sector, but he did not think that the first should serve as a model.

According to the Retail Sales Director, technical know-how and people that provide service etc. build corporate image. Image consists of multiple pieces, which have different weights, and image can be improved by developing these pieces. Environmental issues are not central to the improvement of corporate image: they do count, but their role is marginal. The company could improve its image by giving more weight to them. The Quality Director argued that

there were many possibilities for an improvement in corporate image, systematically, with the help of environmental management. All depends on people: the question is essentially a problem of a big business company. The Vice Managing Director observed that the image the company had, in the eyes of consumers, could be improved, and that environmental management could have a role. Consumers perceive the company as a cold, technology-based and frequently reorganized company, and, consequently, do not have much sympathy for it. On the other hand, the company, contrary to many other local producers, has a good brand. Environmental issues might be integrated in a softer image, but it is not easy for a big industrial company. The opinion of a Business Area Director was more positive. He argued that the development of corporate and brand image was rather satisfactory. According to him, the target of the company was a family-oriented consumer; a 35-year old, instructed woman, whose priorities were that food was convenient but good. The definition given to the company is; a *“friendly big brand house”*. He pointed out that the creation of corporate image was very expensive, just like the maintenance or the development of brand.

The Managing Director of the Procurement Company argued that the image that the company had on the market was an important competitive factor. Food creates images, and consumers are sensible to the basic characteristics of products and image factors. Therefore errors must be minimized and self-evident issues taken care of. The image of the products is that they are reliable and safe, or (minimizing) at least do not make one sick. The image has to be coherent so as to enhance the loyalty of consumers. The concept of organic products can be taken as example: organic product line is coherent with the conventional production of the company because the concept of conventional products includes the control of the growth process of farm animals.

The Managing Director of the Procurement Company, the Logistics Director and Technical Director identified the effect of environmental management with the effect of the commitment to domestic raw materials. It may be that neither of them is able to guarantee a better price for products, but they may be decisive for the choice of consumers. Consumers value the company because it produces Finnish food under a reliable brand name. The contribution of domestic, environmentally acceptable agricultural production is very important. The Marketing Director sustained that the company wanted to be authentically Finnish and was, therefore, committed to the use of domestic raw materials. Domestic raw material is one of the four basic pillars of the business, together with good taste, safety, and nearness of the company. Each of them contains an environmental loading, but environmental concern is never expressed separately. The approach is consistent with the way Finnish people experience their country: in Finland, nature is overwhelmingly present with

forests and lakes, and therefore Finnishness is associated with natural. Abroad, the perception of Finnishness is different: the role of Finland is perceived as the “*wood shed*” of Europe.

Several respondents sustained that environmental management contributed to the protection of corporate and brand image. A Business Area Director sustained that nobody would have bought the products if they had a bad image, therefore the protection of image prevails over cost efficiency. The Managing Director of the Procurement Company sustained that environmental management was like having insurance: environmental issues had to be taken care of because otherwise there was a risk of consumer’s negative buying decisions. Insurance is a response to consumers, which take diligent environmental management for granted. According to the Catering Sales Director, the environment is not exactly a risk factor for the company, but environmental management, like attention to ethical aspects of production, was aimed to protect the brand. A unique brand is a good commercial reason for managing environmental issues diligently because there is the danger that one mistake or negligent action ruins its name. A single negative episode could lead to the loss of consumer trust.

A Business Area and R&D Director agreed on the importance of maintaining the trust of consumers and other stakeholders. From this point of view, environmental management is a risk factor. The company should be able to affirm, at any time, that its environmental management is maintained at a good level. So far as everything is in order it is self-evident, but if something negative happened, the company should be able to demonstrate it. Environmental management has to cover the whole supply chain, a negative event in one link could bring negative publicity to the whole chain. The Vice Managing Director agreed on the importance of brand protection. He sustained that the company could not accept bad treatment of farm animals or an insufficient level of environmental management. Product labels contain information on the codes of conduct or ethical aspects for image reasons. An irresponsible conduct could soon have a negative impact on image.

The Quality Director argued that reputation was an extremely important issue to the company. The name of the company must not “*be dragged through the mire*”. He used as an example odor emissions, and pointed out that they could become a remarkable question of reputation if media gave the news. Quality and environmental certifications contribute to good image. A Business Area Director claimed that the level of environmental management could not decrease because it would damage the image of the company. Environmental management must be constant: it cannot go backwards or be one this year and another one, the next.

4.4 Effective and potentially feasible actions

4.4.1 Perceived commitment to environmental management

4.4.1.1 Opinions for and against the strategic importance of environmental management

The Marketing Director sustained that companies had decided their environmental approach in the late 1980's and early 1990's, when "*green ideas*" had raised a great hubbub. During that period, some companies had become environmentally conscious, while others had not. Most companies have, in the past, made their choice, and their approach will not change significantly. A Business Area and R&D Director agreed with the Marketing Director, she argued that big companies had already reacted, and, consequently, many of them had integrated in their activities environmental management. In her opinion, big companies will not significantly change their environmental management, processes will continue in the same way as when established. Middle sized and small companies would also be obliged to take environmental issues into account.

According to a Business Area Director, environmental responsibility implies that the company carries out waste management and uses updated process technology. The improvement of waste and process management has become a normal managerial issue in all industrial sectors. The objective now is to create an image of products that have a sound basis. The Technical Director agreed on the ordinariness of environmental management: it is self-evident that the company pays attention to environmental issues.

Opinions on the strategic importance of environmental management varied. According to the Managing Director, environmental management is a strategic question, and the company has, as a consequence, included an environmental dimension in its values and objectives. Environmental aspects are taken strongly into account e.g. in the product development. The Sales Directors agreed with him. The most important environmental achievement has been the trust of consumers. It is a result of a systematic work, based on the value of domestic production and purity. According to a Business Area Director, the environmental approach is an essential part of corporate strategy. It requires the allocation of human resources to plan, implement and control environmental performance. All this had a cost, as he pointed out. The Vice Managing

Director sustained that the environmental management of the company had developed in a good direction during the past years, and was, at the moment, superior to average in the food sector. Environmental goals have been better achieved than quality goals (environmental issues differ from quality issues: their measurability is good).

Some respondents denied the strategic nature of environmental management. The Vice Managing Director sustained that the environment was not a strategic question in the food sector. To diminish the impact of food companies, he claimed that the sector did not cause a great impact because it was not an energy intensive sector. A Production Line Director, and a Business Area and R&D Director agreed with him, they both sustained that Finnish meat production was not, at the time, in bad shape from the environmental point of view. There are other more serious environmental problems than those caused by food production, though food production draws interest because it is an emotional argument. However, the company has taken environmental management seriously. It might become a strategic question in food sector because of water scarcity; a potential threat to the continuity of activities. Similarly, the Quality Director sustained that environmental management was becoming a strategic question because water scarcity was becoming a real and urgent problem which threatened the continuity of processes. Since there is a real risk in the near future, environmental management should aim to prevent a conflict.

The Managing Director was asked to evaluate the importance of environmental issues in the light of building investment decisions (i.e. in the design and building of production sites). The question was approached concretely by examining the building criteria of the recently built logistics center, which contains computerized systems, transporters and storehouse spaces. In this case, the building project was so demanding and challenging that it had been impossible to take environmental issues explicitly into account. The center was designed according to cost and operational efficiency criteria. He sustained that cost efficiency led also to improved environmental solutions because high energy consumption or expensive cooling systems generated high costs, which in turn, would have led to the revision of the proposal. According to the Logistics Director, it is difficult to distinguish solutions adopted purely for environmental reasons because solutions are always integrated. The latest technological know-how leads to good integrated results.

4.4.1.2 Environmental issues in managerial and operative work

The role of the Managing Director was active in the beginning of the standardized environmental management system. During that period, the company formulated an environmental policy. Afterwards, the Managing Director's interest shifted to other issues (internationalization), and at the moment, he does not participate actively in the development of environmental management. He pointed out that there was no need for his personal involvement because he knew that environmental issues were taken care of. Environmental management is expected to develop according to initial decisions that define the way by which it is integrated in organizational activities. No specific training has been organized for the managers.

The Technical Director sustained that environmental management was strictly integrated in the way the company operated, and excluded a role of add-on issue. Business activities and environmental management must mutually support each other: environmental management must be a natural part of activities, while artificial solutions would not be accepted. Profitability, hygiene and environmental goals are interlinked. The Retail Sales Director and the Logistics Director agreed with the Technical Director. Environmental issues are an integrated part of corporate decision-making, but they are not emphasized. Their consideration implies compromises because the mere existence of humans has a negative impact on environment. Ultimately, the only right solution would be to *"swing from the rope"*. According to the Retail Sales Director, corporate environmental management is issue-contingent. The Marketing Director argued that environmental management was authentically integrated in organizational activities and perceived, instead, that the company had a global approach because environmental issues were not handled as project type issues. Organizational members are aware of them and consider them as integrated parts of activities.

Most respondents perceived that environmental management was a long-term activity, and needed constant attention and development. The Technical Director was convinced that, in the company, it had a stable role. It would certainly not disappear from the food sector, and though there could be economically difficult periods, the company would not give it up. Profitability problems could influence it just like they could influence any decision concerning the way capital is tied up in a determined year. Environmental management consists, prevailingly, of the maintenance of processes, though the priority is its development: the aim is to make activities more efficient. It will be constantly developed, like all organizational activities, and, thus, it will not come to a stop. Energy can be directed to finding new paths: indicators can be checked, questioned and the management can analyze the current situation,

deciding if it is good or if something needs to be changed. A Business Area Director sustained that the company sought new targets for development programs: new challenges were needed, otherwise environmental management risked losing interest. The Managing Director observed that it was a subdimension of activities, and was developed just like any other organizational dimension. If you want to be number one in your sector, you have to be number one in all organizational fields. Several respondents also argued for the importance of technological development to environmentally efficient solutions.

A Business Area Director pointed out that environmental management and environmental measures should not remain abstract objectives, but the responsibility for their implementation had to be attributed to a determined person. According to the Technical Director, responsibilities are clear: the Vice Managing Director is the highest responsible for environmental management, with a direct connection to the Managing Director; operational levels report to the Technical Director, who in turn reports to the Vice Managing Director. Technical service and production functions propose environmental goals, these are approved by the Top Management Team. A meeting of the Top Management Team is the occasion for thinking of environmental issues and for participating in environmental decision-making.

The Top Management Team has a fixed list of issues treated in the meetings. Some time ago, environmental issues were not on that list, but were treated only in case of anomalies. The Marketing Director observed that the Top Management Team normally verified, twice a year, that the general level of environmental management was good, and that the implementation of the system was adequate. Initiatives are taken in case of anomalies. The technical service approaches environmental issues very systematically. Consequently, the Technical Director usually proposes timed corrective actions.

According to the Catering Sales Director, technical service is responsible for environmental management, its task is concretely maintaining the system and keeping alive the discussion on environmental issues in the organization. A Business Area and R&D Director observed that determined organizational parts, namely technical service and quality management, had been assigned the responsibility for developing environmental management, and the rest of the organization did not necessarily think how it could improve. The Managing Director recognized the importance of the technical service because it develops environmental indicators, but he claimed that environmental management was not confined to the technical service: it is concerned with product and package design, and it is integrated in various organizational functions, like buying. Currently environmental issues are taken into account e.g. in package design.

A Production Line Director perceived that he had the possibility of influencing environmental management. A Business Area Director argued that his personal contribution consisted of the participation in the setting of environmental goals, the choice of process equipment, and the development of processes. According to the Logistics Director, the company has a positive attitude to environmental improvements, and all managers can influence decisions. He had personally participated in decisions concerning distribution partnerships and the distribution of products in plastic cases.

The sales function did not feel directly involved in environmental management. According to the Retail Sales Director, sales function trusts that process management functions in conformity with the ISO 14001 standard, and focuses also in environmental development, and not just on the control of costs. He had participated in the setting of process objectives, but without being able to give an active contribution because of lack of expertise. The Catering Sales Director sustained that to the sales function, environmental issues were secondary, distant, and irrelevant. Environmental problems are technical by nature, and therefore experts on process technologies should set goals and measures for their achievement. The focus should be on the maintenance of the system, on the constant provision of internal information, and on the stimulation of others in taking environmental issues into account. Environmental aspects could be forgotten if people did not keep recalling them.

Several respondents measured the effect of environmental issues on their work. A Business Area and R&D Director sustained that they had, in her activity, an important role. She explained that the influence was twofold; the first manifestation is the close collaboration with agricultural producers. Second, environmental issues influence product development, and particularly, the choice of packaging materials. The amount of package per produced kilo is monitored and compared with the year of comparison. The relative amount of package has, as the respondent claimed, decreased. The Marketing Director observed that in package design the environmental impact had to be taken into account. To him, environmental management implies the participation of representative bodies that discuss on environmental issues. He pointed out that there was no reason to complain about the paper work because, in this sense, all organizational functions could be re-evaluated, and their utility questioned. The Managing Director and a Production Line Director agreed with him; the former sustained that a standardized system increased bureaucracy, but it was indispensable. The latter argued that measurement was a means to achieve goals. He perceived that environmental issues had an important role in his work: all improvement proposals were taken seriously. Monetary criterion prevails in his job: it obliges the development of environmental issues at all times, though this does not mean that environmental management is merely a cost

question. It is a way to take environmental aspects concretely into account: when activities are performed in an economically efficient way, they are also environmentally friendly. The Technical Director was particularly interested in potential new energy sources and technologies, and followed their development mainly by reading specialist articles. The Retail Sales Director claimed that he followed international trends, but without particular emphasis on environmental issues. His focus is on consumer trends (consumer behavior, e.g. is red meat preferred to white meat) and service trends, which can be influenced by green values. He had also taken a post graduate course in environmental management, but though he assessed it positively, he perceived that it did not provide insight or tools that he could put into practice at work. The Quality Director is formally responsible for the maintenance of the ISO 9001 quality and ISO 14001 environmental systems. He assessed roughly that this work consisted 70% of quality issues and 30% of environmental issues. The Logistics Director sustained that environmental aspects were always taken into account in the development of logistics functions, i.e. they were always "*in the back of the head*". Logistical function controls the amount, the filling and the pricing of packages. Customer requirements affect the choice of package.

According to the Quality Director, environmental issues are not included in the periodic training of production line managers. New employees are initiated to the quality thinking, but environmental issues can easily be dropped from the training program because of time problems. Only environmental aspects relative to operative tasks of employees are treated because that is where individual workers may influence the implementation of the environmental program. Both quality and environmental issues are first of all investment decisions, and therefore training does not play an important role. However, if environmental training improved, the results of environmental management would do the same. The environmental training of employees was scarce because nobody was responsible for it.

According to the Retail Sales Director, the environmental program is communicated to all managers, and these are aware of environmental principles, objectives and programs (see also the Environmental Report 2000). Environmental information is available in the organization. The Quality Director perceived that environmental issues were well espoused in the organization, and, consequently, there was no need to increase information flows or transparency. On the other hand, there are specific production areas in which systematic environmental information is not available, and inefficiencies in the use of environmental information. The collection of information at department level has started only recently. A department review that includes an evaluation of energy and water use, and the measures to be taken in case of need, is drawn up six times a year. This initiative is a step towards a more systematic

use of information. The missing transversal treatment of environmental issues means that different functions do not discuss together. Consequently, collective initiatives are missing. According to a Business Area and R&D Director, personnel could be more aware of the environmental aspects relative to their tasks. E.g. waste minimization is both economic and environmental question, but not necessarily recognized. Employees are informed e.g. by leaflets. The Marketing Director added that there was an info TV that reminded of correct behavior, like: *"keep the doors closed"*, *"do not waste water"*, etc. Continuous reminding increases initiatives because people understand that these issues are important.

The Quality Director sustained that there is no peculiar need to motivate organizational members in environmental management issues: at the operative level, measures to be adopted were clear. There could be the possibility of stimulating the involvement of employees in environmental management, but that would imply more work – not necessarily paid for. According to the Technical Director, the main responsibility for the everyday implementation of environmental actions is assigned to three employees of the technical service. To the production personnel, environmental management means rules of conduct, which can be rather tedious. All employees are expected to be aware of the sorting criteria and recycling procedures relative to their tasks, save energy and water, and know how to act in failure situations (Environmental Report 2000). The Technical Director sustained that it had been painstaking to get started the sorting and the disposal of risk materials.

The Retail Sales Director and the Quality Director sustained that all organizational members could influence the environmental performance of the company by initiatives, which were always welcome. These initiatives are rewarded according to a general reward system, which is proportional to the economic benefit generated to the company. According to the Marketing Director, people who have worked in the company for a long time consider environmental issues seriously and concretely. There have been numerous initiatives, which could be interpreted as a manifestation of employees' interest. Initiatives are, thus, proof that environmental values are integrated in the organizational culture, and a signal of their importance at the bottom line.

4.4.2 Perceived environmental behavior

4.4.2.1 Unilateral measures to improve environmental performance

The company uses the following environmental *management tools*: environmental accounting, indicators, management system and audit.

Environmental accounting is used for control and communication. Environmental management is based on an integrated operation system, which establishes the objectives for wastewater management, composting, energy consumption, recycling, etc. Environmental costs relative to the year 2002 included waste management and air protection costs. Environmental investments consisted of a wastewater plant, composting areas and a heat recovery plant (Corporate Annual Report 2002). The numbers relative to the above-mentioned costs and investments have been included, for the first time in 2002, in the Corporate Annual Report, and through it communicated to external stakeholders. The report briefly illustrates environmental financial accounting results and principal environmental indicators, which are: energy consumption, waste amount, the oxygen consumption of wastewater, heat recovery and water consumption. These numbers are presented at corporate level and at controlling company level.

A Production Line Director sustained that corporate environmental management was partly rhetoric and partly based on good indicators; they were used to evaluate organizational practices and activities, and designed to rationalize them. Environmental management is now department related, but at individual level, there would be margins of improvement.

According to the Logistics Director, important environmental issues could be transmitted to employees through indicators. The company uses indicators in the measurement of the input/output ratio of costs, customer satisfaction and environmental impact. The indicators of environmental impact are always present in activities. They translate the impact in monetary terms, or quantify it by using quantities like km/kg or the used capacity of a transport vehicle. Monetary and quantitative representations make environmental issues understandable. Environmental indicators for logistics (logistical production, distribution services and auxiliary functions) are partly developed by the technical service, and partly by the logistical function itself. The company measures mainly the following quantities with the help of environmental indicators:

- water consumption (l/produced kilo);
- wastewaters (organic loading/produced ton);
- energy consumption (kWh/produced kilo);

- landfill waste (m³/ produced ton);
- heat recovery (MWh/a);
- package materials;
- logistics;
- transports (transported product tons/fuel consumption and emissions; fuel consumption and emissions/km in case of animal transports);
- air emissions (internal and external measurements); and
- health and safety (accident and illness statistics).

The Technical Director argued that the setting of environmental goals was a challenging task, he sustained that environmental goals were demanding and that their achievement was an effort. Environmental management has not encountered failures: all goals have not been reached, but goals have been revised (changed) in order to react to changes in activities. The Marketing Director observed that certain target values (like water consumption) were set in relation to the quantity produced because the absolute amount of production could vary in function of major or minor demand. The Sales Directors perceived environmental goals as being practical. When they are set, the company works hard to achieve them; if they are not reached there are good reasons and justifications. An example is the initial contribution of the new logistical center to the environmental impact of logistical processes.

The Technical Director observed that environmental goals have to be quantitative, i.e. measurable, and measures based on good criteria. Each production site now has its own short-term environmental goals, the shortcoming is that they are mass goals. The way of thinking is changing: the aim is to set more detailed goals in order to make them more practical for employees. The system can be developed to make it closer to operational personnel: goals should involve individuals. The logic is that issues or goals should be divided within each department. For example, electricity and water consumption indicators are now built to monitor the development of consumption at production site level, while a more efficient way would be, instead, to measure them separately in each department. A detailed measurement system, as the one taken as example, would be suitable also for other consumption quantities (e.g. detergent use). More detailed indicators would more efficiently support business activities. Goals should be deeply embedded in the organization, and new development areas should be discovered so as to avoid that environmental management becomes merely routine.

According to the Catering Sales Director, there is no tangible way of determining what is good environmental management, but it must be based on facts. He doubted that certain quantitative environmental indicators should be communicated to external stakeholders, the reason being that it is impossible to determine in absolute terms whether the achieved results are good or not.

For example, is the amount of waste an absolute indicator of the level of environmental management?

According to the Quality Director and A Business Area and R&D Director, the ISO 14001 management system has been a natural extension of a previously adopted ISO 9001 quality system. The development has advanced from quality issues to environmental issues. The implementation of the environmental management system had been difficult only in the beginning. It was not the nature of the environmental management that made the implementation particularly difficult, but the simple fact that new issues are always difficult. New management tools are available continuously. If there is a need, the organization can adopt a system that is suitable for its needs and structures.

The Technical Director argued that the biggest changes had taken place at the beginning of the standardized environmental management system. Certain methods that had replaced wrong practices and reduced wasteful consumption had been difficult to put into practice. After the initial changes, environmental management had become routine and was an incremental process. In the words of a Business Area Director, environmental management is like marriage: *“at the beginning there is a surge of emotion, and then smooth development”*.

Environmental management system is based on environmental policy, which in turn, is an integrated part of operation policy. There is a set of objectives that direct the implementation of operation policy. These objectives are to:

- increase customer satisfaction with the company's products and services;
- increase cost efficiency of activities;
- reduce raw material and material waste;
- improve quality of products and production hygiene;
- enhance domestic meat production and guarantee the availability of domestic meat raw material in the future;
- pursue a profitability that guarantees the continuity of activities;
- decrease the relative use of energy and natural resources; and
- improve environmental performance.

Following the standardized system approach, the company has conducted a preliminary analysis so as to identify its critical environmental aspects. It has identified the following critical aspects on the basis of the gravity of environmental harm and the frequency of anomalies:

- energy consumption;
- water consumption (especially in plant cleaning, which is important to product hygiene);
- oxygen consumption (caused by wastewater); and

- waste generation.

On the basis of critical environmental aspects, the company establishes objectives that guide resource allocation. Environmental objectives are to:

- decrease water and energy consumption;
- mitigate environmental burden; and
- improve productivity.

These objectives are expressed in concrete measurable goals, achievements are assigned to each production site on the basis of a plan of action (Environmental Report 2000).

According to the Managing Director, a standardized system approach is advantageous to the company because it regularizes environmental management, and establishes an audit system that makes it impossible to “*slip*”. However, a standardized system does not guarantee creative solutions and new plans. The danger is that environmental management becomes a routine, and that the system becomes more important than improvements. The Vice Managing Director argued that ISO 14001 was an adequate management tool because it made environmental management systematic, while on the other side, the system might hamper the use of common sense because people tend to hide behind it. A Business Area Director argued that ISO 14001 gave a right direction to environmental management, but when it was implemented, nothing new got done unless there was a spark of interest. A Business Area and R&D Director claimed that a standardized management system was a good way to approach environmental issues, though it did not give guarantees. There is an external auditor, but it is the company that sets environmental goals. According to the Logistics Director, a standardized system approach guides development, supports business, and is therefore useful. A Production Line Director agreed with him: he claimed that environmental certification was a rational way to approach environmental issues, which often were integrated in economic issues (as in case of waste management). However, a system does not guarantee good environmental management. The opinion of the Managing Director of the Procurement Company was even more negative, he sustained that environmental certification was more a fashion phenomenon than a way of management.

The Managing Director observed that both internal and external audits controlled that the direction of development was right. The Technical Director added that auditing provided internal information to the management. External auditing is not merely control, but also development, this because external auditors can make proposals. Recently, an auditor had suggested to set goals for a period of one year instead of five years. He regarded this proposal as valid.

The main ***communication tool*** of the company is the environmental report. There is no formal environmental statement, but the purpose of operation policy contains a definition of environmental approach. The company states

that the purpose of the operation policy is giving a common direction to the development of quality of products and activities. It implies a continuous improvement of productivity, profitability and environmental performance. The company also claims that it has adopted a policy of transparency in environmental issues: each organizational member is held responsible for receiving questions concerning environmental management, and ensuring that they are answered. The principle is to reply to questions without delay, according to the knowledge and the expertise of the receiver (Environmental Report 2000).

The company has published its first environmental report in 2000. The latest report (2002, 23 pages) is available on line on the company's web site. It describes the contents of the integrated operation policy and system, which consists of quality management, environmental management, and autocontrol, hygiene and HACCP⁴⁷-system. It illustrates critical environmental aspects of activities, the environmental program, objectives and measurable goals. It also describes the environmental actions taken during the year, refers, in general, to the importance of environmental training of employees, lists anomalies and corrective measures, stakeholder contacts, and confirms the validity of licenses. It dedicates a fair amount of space to the evaluation of the achievement of measurable goals: it presents qualitative and quantitative data relative to each goal; qualitative data describes what is measured and why. In 2002, energy consumption and heat recovery did not reach the established goals, but the missing achievement of goals was not explained. It includes also a brief paragraph of environmental ethics, which underlines the commitment of the company to domestic raw materials, and its efforts to take care of farm animal welfare. According to the report, the ethical side of environmental management includes also the regulation of meat supply by a code of conduct, and the marginal production of organic foods, presented as a clear manifestation of sustainable development. The report, finally, contains some general economic information of the company.

The company has integrated, for the first time in 2001, a brief section of environmental issues in its annual report. This one page presentation includes very general indications of environmental problems that the company strives to resolve, and a graphical presentation of the main indicators, which are the following:

- energy consumption;
- waste amount;
- biological oxygen consumption;
- heat recovery; and
- water consumption.

⁴⁷ Hazard Analysis Critical Control Points.

The presentation illustrates the development of the main environmental indicators during the past five years at corporate level, without further comments or explanations. In the Annual Report relative to the year 2002, the one page was filled, again, with a few generic indications of the main environmental management fields and with the development of the previously presented indicators, this time, at corporate and controlling company level.

The company does not use eco-labels. It offers a marginal share of non-processed organic products. A Business Area Director sustained that organic meat processing and the separation of conventional and organic products were not economically feasible to the company. The scale of production of processed meat should change because current quantities would not be sufficient. Organic farming is "*a beautiful thing*", particularly suited for vegetable production., it would be impossible to produce organic meat all year round. However, modern food processing techniques are not that bad.

The Marketing Director perceived that organic production was supply-oriented, and that its extension would have required the involvement of agricultural producers, and support from social structures, this because producers were worried about the economic feasibility of the conversion period to organic production. The Caterin Sales Manager sustained that, at the moment, the demand was concentrated on an annual event that promoted organic products (organized by Finfood), while it would be preferable that the demand was constant all year round.

Green marketing efforts were practically inexistent. According to the Marketing Director, the company decided it will not put into evidence environmental aspects because the basic arguments already include them, and also because a product must not contain too much communication. A concrete message, like package disposal instructions, is more efficient (than e.g. a reference to certificate), and suitable for assuring consumers that environmental issues are considered.

According to a Business Area and R&D Director, environmental communication to consumers is scarce and the information remains constrained to intimate circles. Communication is limited to indications of correct package disposal and to plastic quality sign. Environmental certification could be communicated to consumers, but the use of other environmental messages would be more problematic. If the company decided e.g. to give information about water and energy consumption, it could be unclear what is a right level of consumption. As a consequence, such indication could make consumers wonder, why is the consumption so high?

A Retail Sales Director observed that a market-oriented information campaign could be a potential way for the development of external environmental

relationships, but he also argued that the time was not ripe. Consumers are currently interested in the traceability of products.

The Vice Managing Director claimed that exports needed development, though costs would be high because of expensive transport. The Managing Director of the Procurement Company argued that export marketing investments would have been too onerous. The Vice Managing Director sustained that food business was, to a large extent, national by nature, and, consequently, products were developed for the domestic market, which was strongly characterized by local taste preferences. However, though taste is local, the globalization of taste has also been taken into account. It is not easy to make global food products. Accompaniments, dry foods and drinks are global products, typically produced by multinationals, whereas fresh foods are local. The Retail Sales Director found it possible to develop an export strategy by using environmental issues as strengths. The Technical Director agreed with him, he sustained that environmental issues could be used in the communication directed to foreign consumers (namely Swedish consumers). A Production Line Director sustained that the company wanted to internationalize, developing from the Swedish market because it was the most familiar market. The company cannot stop this trend because the limits of growth would soon be reached on the domestic market. Big market areas would be interesting. Potential selling arguments could be that products are free of genetically modified ingredients and hormones, but the use of other environmental arguments might be difficult.

The company has improved its environmental performance through various *clean technical and technological measures*. In the Technical Director's opinion, the company uses more eco-efficient processing technologies than many other Finnish food companies. The Retail Sales Director sustained that the company was enacting a significant effort to mitigate the environmental impact of its processes, being limited by the availability of eco-efficient technologies.

A Business Area Director sustained that the environmental management of the company consisted of the optimization of resource use in a coherent way, and of the use of modern, eco-efficient process equipment. He gave as an example of improvements the use of plastic cases in the distribution of products. These cases have replaced cardboard.

The Technical Director affirmed that technical service carried out activities relative to composting, heating central management, water and wastewater management, etc. The most important environmental achievements are good waste management and sorting, this had changed many usual practices relative to the movement of material in production line. The Quality Director confirmed the importance of sorting. The Logistics Director and the Retail Sales

Director emphasized the importance of waste management activities. There is not much waste because waste disposal costs are high. Wastewater must also be limited because cleaning costs are calculated on the basis of the amount of waste generated. There are efforts to organize an appropriate waste disposal and the treatment of risk materials. Finnish legislation limits the amount of dumpsite waste, and the company has adapted its activities accordingly (Environmental Report 2000).

According to the Vice Managing Director and the Technical Director, the company has achieved good results in heat recovery and composting. Heat recovery had started purely for cost saving reasons, and environmental objectives had been integrated in economic objectives later, which shows that *"business and pleasure"* can be combined. The company has considered the use of biogas, but it has proved to be unreliable. Solutions must be credible: there has to be solid criteria to justify a choice, and possibilities to measure results.

According to a Business Area Director, the development of processes implies latest solutions that increase the level of automation. The Technical Director and the Quality Director regarded automation as desirable because the hygiene requirements of food production were severe. The elimination of manual phases improves hygiene and decreases washing needs, leading to important cost savings. Hygiene and its autocontrol are very important because the activities of the company have to look clean in the eyes of external observers.

A Business Area and R&D Director argued that the company had made proactive choices. She mentioned, as an example, the abandoning of certain hazardous packaging materials. The Technical Director sustained that the company made efforts to decrease the amount of package materials and perceived that it was a positive trend. Package size and materials depend on the orders of customers: industry produces what customers demand: *"making business is a tough issue"*.

The Marketing Director observed that any environmental issue could, taken separately, be *"black or white"*, but *"the direction of the train"* was more important. An example is package design, and specifically, the new package of cold cuts, which can be easily closed after use. A preliminary analysis showed that consumers appreciated certain aspects (like easiness to use), though these implied an increasing amount of package materials. The use of package material increased, but waste and energy consumption decreased, thanks to new technology.

According to a Business Area and R&D Director, the trend is to use modular package sizes. The Logistics Director found the use of space in the distribution of products extremely important to the eco-efficiency of activities.

Other respondents emphasized the importance of product size and form optimization, which could make a surprisingly big difference. One ecological error is to “*transport air*”, the safety of fresh meat products demands protective gas, which allows the product to keep from seven to nine days (against a period from one to two days without protective gas). Thus, some air inside packages is indispensable. The cold chain maintained through the different phases of distribution causes an environmental impact, but it is indispensable to the safety of products.

4.4.2.2 Multilateral measures to improve environmental performance

The Managing Director pointed out that the company did not actively seek, on the basis of environmental criteria, *collaborative relationships*. The only criterion that counts is the economic one. The Vice Managing Director claimed that the environmental stakeholder relationships were functional. The Retail Sales Director sustained that the company, on environmental questions, relied on internal organizational support rather than on external support. However, the company has established some collaborative relationships that develop its environmental performance. Partners are external experts, farmers, trade and competitors.

According to the Technical Director, environmental relationships are generally project type initiatives. He gave as an example the external consulting that the company had used for the resolution of composting questions. The company participates in development forums, namely sitting on environmental committees that are usually formed by the representatives of the food sector. In these committees, its task is to express its opinions on regulations and legislation, and take initiatives. The Vice Managing Director claimed that small expert groups were a suitable method for resolving environmental questions, like for example those relative to packaging. A Production Line Director argued that environmental goals would become increasingly demanding in the future, and would require technological responses specially in the field of waste management. The role of research institutes (as the Technical Research Centre of Finland) is very important for the development of improved technologies.

Environmental issues affect the relationship with agricultural producers. The Vice Managing Director and a Business Area Director sustained that environmental relationships between the company and its suppliers developed in a climate of trust. Finnish farmers are well aware of the environment, and, consequently, use production methods and practices that modern urban consumers can accept. The company expects continuous, permanent production, and farmers are well aware of that. The relationship to meat producers is har-

monious. The EU legislation regulates agricultural production, but also the company sets certain standards, and controls that they are met with help of indicators. Most farmers have a modern outlook and take the emissions of their production into account. The Managing Director of the Procurement Company evaluated more critically the integration of the whole supply chain. He claimed that the supply chain was excessively subordinated and bereft of common objectives. Consequently, agricultural producers think of the price they can get, and of the legislative limits and incentives, while the food Industry focuses on profitability and image. Trade, in turn, is concentrated on questions like consumer trust and attractive products. Agricultural producers have to understand their role: they are a part of the game on a contractual basis and produce kilos, but they do not have to be marketing-oriented. They have to understand the top-down communication that comes from the company, which establishes what products must be like (weight, quality standards, etc.), and accept to produce commercially viable products (according to the requirements of trade and consumers). This means the seizing of opportunities, and guarantees to owner-producers capital gains and income. There is the danger that environmental management affects the food supply chain negatively, eroding dynamics, motivation and economic preconditions of farmers. They are worried because their work is complicated e.g. by forms that are found difficult to fill in.

The Managing Director observed that the relationship with owner-producers was managed by production contracts (like quality contracts), which established a premium price to raw materials that fulfilled the established criteria. The relationship with producers is close, and this is proved by activities like sample taking, follow-ups and training. A close relationship is advantageous to producers, but if they break the rules, the profitability of their production will decrease. The relationship to owner-producers will be, in the future, a strength for the environmental management, and will be developed.

The Managing Director of the Procurement Company specified that there were different kind of relationships with meat producers. Poultry is a contractual production, where cooperation is very close, while pork and beef are more like open buying, without long-term contracts that regulate relationships. The company buys on the basis of the information that producers provide on the availability of raw material, which depends on the growth of farm animals. A quality meat contract guarantees a premium price to producers, which are expected to provide the company with all the necessary documents that attest the adoption of quality meat procedures. The contract lasts normally one year and can be cancelled thereafter. The contractual period cannot easily be extended because contracts between a single producer and a big purchasing organization can draw the interest of the Competition-ombudsman. Short quality

contracts limit the possibility of the company to allocate resources towards the improvement of these relationships. The company has invested in meat production (pig houses) in order to improve the chain efficiency, and in these cases it has demanded longer contracts. However, quality meat contracts are usually renewed: in 80% of cases (roughly speaking) quality meat suppliers renew the contract because the premium price has a high incentive value. Another advantage is that raw material is purchased first from contract suppliers, and after that from others.

The Technical Director sustained that the codes of conduct that the company established reflected life cycle thinking. A Production Line Director argued that if meat production was regulated by a quality meat contract, environmental issues couldn't be badly managed. Family run farms would be an environmentally advantageous way of production, but often incompatible with economic realities.

The company states that it intends to increase the share of organic products to ten percent of the total production by the year 2005 (Environmental Report 2000). The Managing Director of the Procurement Company argued that the company encouraged organic farming and helped producers to start up (though at the moment the majority of organic production was sold directly from farms). The development of conventional production and know-how has had a more positive effect on environment than the development of organic production. Good farm profitability implies that land is used well, and in this case, productivity and environmental benefits correlate positively.

Environmental performance has improved also in virtue of the collaboration with trade and competitors. The Retail Sales Director sustained that the company had established collaboration projects with trade in order to develop the quality of the whole business. Collaboration concerns the development of package materials, the amount and the recycling of packages. The Vice Managing Director perceived that there were no psychological barriers to the collaboration with competitors for cost saving purposes, and gave as an example a common destruction plant. A Production Line Director agreed on the validity of competitors as collaborators. Competitors are important environmental partners, e.g. in the organization of risk material disposal. A Business Area Director sustained that the environmental problem of food industry was transportation, and that the problem could be mitigated by collaboration with competitors (common transports), and the use of modern, less polluting equipment. Even if the company provides raw materials from more distant locations than before, the transportation system has developed. The Technical Director added that the company had also trained its transport service providers. The company monitors the environmental impact of transports from 1997 (Environmental Report 2002). According to the Logistics Director,

electronic ordering increases the number of orders and physical supplying activities, but this increase is compensated by the collaboration with competitors. Several respondents perceived that reusable distribution cases, designed and managed jointly by meat processing industry and trade, had been an important environmental achievement. Since the cases are made of plastic, they protect the products and decrease the amount of waste products. Cases are washed and sent to the next user, in this way their circulation is minimized, the cost efficiency of distribution improved, and the environmental impact of transportation reduced. Since the distribution system is decentralized, the company is not able to build an accurate indicator of the impact of its transportation. However, the collaborative distribution system reduces it. Badly managed logistical systems generate huge amounts of waste: their input-output ratio is very bad, and they require continuous new supplies; furthermore, the bigger magazines, the bigger waste. The Vice Managing Director perceived that the advantages of plastic cases were minor environmental impact, practicality and cost efficiency. The Retail Sales Director observed that the company had to meet, however, the requirements of an important foreign discount chain, which wanted products in cardboard boxes. Plastic cases do not fit the policy of the discount chain because it sells the products (under private label) directly from cardboard boxes. It is an interesting customer whose needs must be satisfied. If the Finnish food industry did not supply products according to its requirements, foreign industries would. The Catering Sales Director perceived that though the use of cardboard boxes represented a step back, the company did not try to influence customers that demanded them. Industry is not able to tell trade what it should do. A Business Area Director and the Vice Managing Director agreed with him; the former sustained, in particular: *"I am not able to, and I do not want to, give advice to retail trade."* When trade treats *"cheap"* products, it has to choose suitable distribution solutions.

Environmental management affects *the acceptability of corporate activities* in the eyes of authorities, customers and consumers. The Technical Director observed that numerous authorities controlled the company, and since the membership to the EU, the amount of controls had increased. The importance of single controlling bodies changes, in time, along with changing environmental priorities. At the time of interviews, the company had to adapt to new regulations: it was applying for reorganized environmental licenses. The company had to provide information to licensing authorities for the assessment of best available technologies (BAT), on the basis of BAT reference documents (BREFs).⁴⁸ The Managing Director of the Procurement Company argued that

⁴⁸ The assessment is based on the EU Directive (96/61/EC) on Integrated Pollution Prevention and Control (IPPC).

the relationship with authorities was relevant especially when the company intended to extend or rebuild processing activities. The company “*collaborates*” with authorities, which often means that there are collisions between different points of view.

The Technical Director sustained that the company sought, with local authorities, solutions to environmental problems. The Vice Managing Director specified that local authorities controlled water and wastewater management, and influenced the company also through city planning. The Ministry of Environment is involved (and is becoming ever more involved) in every issue where its approval is requested. Therefore a closer relationship to the Ministry could be convenient. According to a Production Line Director, a more transparent relationship with authorities could show what corporate activities were like, and avoid the introduction of impossible standards. The representatives of the Ministry of Environment could e.g. visit the company in order to strengthen the relationship.

The Retail Sales Director emphasized the need of sector-wide solutions in order to mitigate the environmental impact of logistics. Environmental issues are taken into account in contracts between the company and its retail trade customers, though there is no direct and continuous partnership between them. The company e.g. guarantees the traceability of its products, as retail trade customers demand. The food industry has never neglected questions relative to the origins of products; the company is, in Finland, a pioneer in this field.

The Retail Sales Director sustained that it was important to maintain a transparent relationship with consumers. Consumers are informed of certain important product characteristics, like the use of genetically modified ingredients. The scarce interest of consumers in environmental information is, however, a limit to external communication. The Logistics Director claimed that since economic resources were scarce, communication needed to have an economic significance. Environmental communication could become interesting, if consumers paid more attention to environmental issues concerning the various activities of the company. The interest should become similar to that in water pollution control: the issue was a subject of public debate, and, consequently, started to affect the choices of consumers. A Business Area and R&D Director distinguished two different types of consumers: the first type did not want to pay attention to the phases that precede the consumption; the second type considered the phases that a product had undergone before consumption. Consequently, many consumers simply want to see that “*food is food*”, not vegetables, products derived from animals, etc. The food is on the plate, and nothing is further specified. A fish finger, which is an industrial product where the fish in its original form does not show anymore, was given as an example. The second type consumer is interested in the feeding and the

growth conditions of farm animals (e.g. has a chicken grown in a battery). Since the will of consumers to know of the origin of food products is different, it is somewhat complicated for the company to decide the contents of its communication: how should it communicate, when some consumers want to know, and others do not?

4.5 Perceptions of the representatives of supply chain

4.5.1 Retail trade

This section reports the data collected from a Finnish retail trade company Kesko Food Ltd, which is one of the biggest customers of the meat processing company under investigation. The purpose of this section is to shed light on the importance of environmental management to the retail trade company, and on the way in which environmental management influences its relationship to the food industry. These questions are examined with help from the conceptual framework built in this research.

The attitude of the retail trade company to the *key agents of environmental change in society* is quite clearly inclined towards public vision. Public institutions should build an efficient regulatory framework by taking the opinions of interested companies into account. The company sustained that the important task of companies was that of contributing to the elaboration of good regulations. An active participation in the development of EU and Finnish legislation would be of particular importance, as in the designing of international trade regulations. This participation would guarantee a sufficient corporate expertise in regulatory decision-making, and lead to decisions that can easily be put into practice (Report on Corporate Responsibility 2001). The Development Director argued that some issues would require clearer rules (regulations or laws) because there was the need of clarifying the role of different actors, like communities, consumers and society. They would resolve conflicting opinions on liabilities to pay, i.e. it would establish unambiguously who should pay for certain measures.

The interviewee saw that companies had an important role in sustainable development. In his opinion, the company had chosen, for its part, the role of mouthpiece, which means that it makes its voice heard in environmental and social issues all the time. It has taken a leadership position, and expected the whole food sector to move in the same direction and meet equal requirements.

The company perceived that there were both external and internal environmental *change forces*. The Development Director identified two important external environmental stakeholders: European Union and consumers. The European Union was seen as an important section that determines tendencies. Consumers are the most important potential sources of external pressure, however, they do not always appreciate the environmental efforts of companies in their buying decisions. An increasing number of consumers is interested in the origin, safety and manufacturing conditions of food products, and wants to have relative information. This affects the behavior of the central retail trade, which must acquire detailed information about the different phases of the food supply chain, and communicate it to consumers actively and openly. Despite increasing interest in the above-mentioned characteristics of products, the role of consumers as environmental drivers is marginal. The “*deep green*” consumers – a minority group – form a market segment that takes environmental aspects into account in its buying decisions, and is willing to pay a premium price. Otherwise, the environmental preferences of a normal consumer do not manifest themselves at the cash counter. There is a positive trend in society, it is peoples awakening of interest. The environmental approach is a value-based question which requires years: things will not change overnight.

The Development Director perceived that environmental management depends on top management. Specially younger managerial generations understand the importance of environmental issues, and in the organization of Kesko Food, the interest of top management in environmental and social issues is very high. The introduction of environmental issues in decision-making had met initially some internal opposition. However, such reluctance had disappeared as soon as economic benefits had been achieved.

The Development Director identified both ethical and profit-oriented *motives* for Kesko’s environmental management. He claimed that the company took economic, social and environmental responsibility for its activities. Kesko Group has, in fact, defined its corporate responsibility, following the “*triple bottom line*” way of thinking which has become internationally widespread (Report on Corporate Responsibility 2002). According to the Development Director, responsibility means that bills are paid in time, and food companies are kept alive by purchasing their products, which is possible only if the retail trade company is profitable. Business activities are conducted in order to make results, the importance of economic results is stressed also in the Report on Corporate Responsibility (2002). The report points out that economic performance is the cornerstone of corporate responsibility, and that it would be difficult to take other responsibilities if economic performance was poor. Social or environmental responsibility must not reduce economic performance.

The Development Director sustained that the most important achievements of environmental management were increasing appreciation and visibility. Appreciation has been gained in professional associations, and hopefully, also among consumers, who should show their appreciation in their consumption decisions.

The Development Director pointed out that environmental issues significantly affected efficiency, and, consequently, environmental issues were mainly perceived as cost objectives. People may have a narrow concept of environmental management which is merely seen as waste management, though it is actually much more than that. The biggest economical questions are energy, transportation and waste. Environmental management has contributed to significant cost savings in logistical functions, especially in transportation.

The Development Director listed different organizational *actions* that integrate environmental aspects. He observed that environmental management strengthened organizational management. He defined it as a clearly strategic decision, arguing that the company had made its choice so as to act as a pioneer. In his opinion, it was impossible to turn back from the chosen direction. So far, resources have been sufficient for environmental issues, and the company has reached good environmental results, while negative effects have not been encountered. The preconditions for a successful environmental management are good training, knowledge and top management support.

Kesko Group has identified three major causes of direct environmental impact: warehousing, handling and transportation of goods; construction and use of real estate and waste management. These can be reduced e.g. by developing target-oriented environmental management and calculation, and by improving the eco-efficiency of buildings. Indirect environmental impacts consist of manufacture and use of sold products. The indirect effects can be mitigated by requesting manufacturers, promoting sales of environmentally friendly products, providing environmental information to consumers, and promoting recycling and recovery of products and packages (Report on Corporate Responsibility 2002).

The Development Director claimed that trade was not very big polluter: most of its emissions were due to transports. He, nonetheless, explained that environmental management was integrated in normal management in such a way as to be always present. It is an issue that continuously interests the company, and gets new emphasis. There are numerous development projects, like the development of reusable cases for imported products, or the issue of waste prevention, which is also a cost question. Development is gradual and conditioned by technological development, and the goals that guide it are not too demanding.

Despite the alleged strategic role of environmental management, the Development Director excluded the possibility that environmental investment proposals, which would generate only environmental benefits, could pass managerial scrutiny. An investment has to generate either an internal process improvement, or an immediate benefit to customers (namely retailers) and/or consumers, in terms of improved quality or service. The aim is that of developing the entire process by eliminating unnecessary phases, internalizing core business functions, and externalizing the rest. Hence, development implies abandoning current dominating logic of partial optimization, and improving an integrated optimization of the whole logistics chain by making it simpler and more rationale.

The purchase and logistics function of Kesko Food has integrated personnel, quality, and environmental issues in the same system. All three subareas are equally important, and the integrated system has both quality and environmental certifications. According to the Development Director, environmental certification has been very useful to the company, among the most important benefits it has improved safety through the elimination of process anomalies and accident prevention. Environmental management focuses on three aspects: energy consumption, emissions and package materials. Good results have been achieved in all these areas. From the environmental point of view, packages are, at the moment, the most important area of intervention. Their importance has been acknowledged e.g. in the training of employees. Packages must be fast to handle. The company has paid attention to the emissions of transportation, decreasing them in virtue of a more efficient operation. A contribution to the efficiency of transportation comes from improved information systems. In fact, the development of information systems is an important part of corporate environmental activities (Report on Corporate Responsibility 2001).

Kesko Food implements an environmental accounting system, which, as the Development Director argued, had been a significant achievement because the measurement of costs was important. The environmental calculating model monitors, in parallel, the environmental impacts and the costs of operations. It has been developed to monitor material, energy and waste flows relative to warehousing and waste disposal operations, the environmental impact of transportation, as quantity and recovery of packaging materials (Report on Corporate Responsibility 2002).

The company publishes a "*Report on Corporate Responsibility*", presented for the first time under this title in the year 2000. "*Report on Corporate Responsibility*" substitutes the previous title "*Environmental report*", which had been used from 1997 to 1999. The Development Director observed that the company was waiting to see how other retail trade companies and industries would react to this initiative. The report includes indicators that are suggested

by international guidelines on sustainable development. The aim of this reporting is to stimulate corporate responsibility and promote uniform practices (Report on Corporate Responsibility 2002).

The Development Director pointed out that environmental issues had to be exemplary managed, in the first place within the company itself, and only afterwards, could specific requirements be set for external collaborators. Thus, when the company will be able to prove that it properly manages environmental issues, it will require that same care from its collaborators. Currently, Kesko Food informs its suppliers about the ISO 14001 standard that it applies, and makes it clear that it hopes that the activities of each supplier are consistent to the standard in question. Environmental aspects are also more concretely taken into account in supply relationships. The company assesses the environmental measures of its suppliers e.g. during supplier audits (Corporate Responsibility Report 2001). Moreover, during the time of this interview, Kesko Food was conducting a survey among food industries in order to understand their attitude towards environmental issues and know their achievements. The company regulates its relationship to the food industry with contracts, product ranges and prices are normally negotiated three times a year. Price is always decisive: this rule holds for all products, food and non-food included. Price will prevail until consumers are ready to pay for higher quality. Shifting the focus from partial to integrated optimization could develop the relationships between the actors of food supply chain. A precondition for this new kind of optimization would be a change of mentality: different parties should focus on the final result of all integrated activities.

Generally speaking, the Development Director sustained that the environmental behavior of the food industry was a positive one⁴⁹. Trade sees that food industry works towards improvements, having started earlier (during the period from 1960's to 1970's) than trade (during the period from 1980's to 1990's). He believed that the bigger companies already had an environmental certification, and were doing a good job. While big industrial suppliers have environmental issues in order, small companies have not been able to follow this trend because fewer resources are available; e.g. new, more efficient and less polluting transport equipment is an expensive investment to them. However, today trade expects smaller suppliers to start to develop their approach.

The Development Director argued that the company had a lot of package collaboration with food industry. Package dimensioning is modular, according

⁴⁹ Finnish citizens expressed a similar opinion when they were invited to evaluate the quality and the safety of Finnish food products. A survey conducted by a privately owned Finnish market research company, Taloustutkimus (2002) revealed that the great majority of respondents (78%) sustained that food industry fostered the quality and safety of Finnish foods; 87% of the respondents further sustained that Finnish foods met their personal quality expectations.

to a standard that is applied to warehouses, shelves and transportation equipment. The standardized dimension aims to improve the efficiency and the quality of logistical processes. The company promotes, among its partners, package practices that are based on environmental/logistical requirements. These requirements are set, in detail, for each type of package used in distribution (source: The K-Alliances Environmental Responsibility for Packaging).

According to the Development Director, retail storekeepers act as an interface between the central retail company and consumers: consumers give feedback to storekeepers that, in turn, transmit it to the central retail trade. Such feedback affects directly the formation of product ranges: for example, the share of organic foods has increased, in certain retail shops, as a response to consumer demand. It is very important to guarantee the quality of products to consumers. Quality assurance involves a wide variety of dimensions, including such issues as genetically modified ingredients, the protection of farm animals, the use of hormones in meat production, the use of azodyes to improve the appearance of food products in food stores, etc. Recent food scandals, for instance, have made the traceability of food ingredients an important quality factor (Corporate Responsibility Report, 2001). A way to win the trust of consumers is to guarantee, with the help of a certification (e.g. organic food certification), that a product has certain qualitative characteristics.

Environmental issues are considered in bilateral or collective relationship to other trade companies and industries. The Development Director explained that Kesko Food followed the development of environmental concern through its interest groups. In particular, the company knows environmental pioneer companies abroad, and gathers information on their movements. It has also established collaboration relationships to big foreign retail trade companies in the shape of knowledge exchange. In Finland, the company follows the work of the Technical Research Center of Finland; it is an important expert quarter because it develops comparable environmental indicators used in companies. It also works with Finnish trade associations and international standardization organizations, which aim to increase the use of environmentally sound materials, and reduce the amount of used materials (Report on Corporate Social Responsibility 2002).

4.5.2 Meat supplier

This section reports the data collected from a Finnish cattle farm, a supplier of the meat processing company under investigation. The purpose is to shed light on the importance to the farm of environmental management, and on the way by which it influences the relationship of the supplier with the meat processing

industry. These questions are examined with the help of the conceptual framework built in this research.

Key agents of environmental change in society; the farmer emphasized the importance of self-regulation. He argued that environmental considerations in farm production depended on the personal attitude of the entrepreneur. Producer associations or institutions were not seen as drivers for sustainability. Regulations have clarified the responsibilities of different actors, and established norms for production methods. There are e.g. EU regulations that set minimum requirements for the growth conditions of farm animals, consequently, improving their living conditions. These improvements generate costs, but they also contribute to the improvement of production. According to the farmer, in Finland, environmental impact has always been taken into account. Negative attitudes have been surpassed and efforts are being made to find good solutions.

In conformity with the importance given to self-regulation, the interviewee sustained that the environmental initiatives of his farm were driven by voluntary choice. He, thus, perceived that the most important **change force** had been personal positive attitude, as a result, the environmental improvements have been carried out spontaneously. An external driver for improvements is the need to carry out agricultural production in a socially acceptable way. It is important that farmers win the trust of consumers.

Industry dictates, to a large extent, the nature of production. The influence of trade does not reach agricultural producers that have slaughterhouses as their direct customers. However, the respondent did not believe that farmers remained anonymous to consumers, or that they could hide behind meat processing companies.

A good **motive** for environmental initiatives is the personal satisfaction of a farmer. A farmer-entrepreneur needs future plans, and one possibility, in this sense, is offered by environmentally friendly solutions. An example of future development potentialities is the production of energy from biomasses, particularly from manure. Environmental management may not get monetary feedback, which means that investments may not lead to visibly higher profits, the reason being, that market does not reward improvements. However, sacrifices must be made, and the time span of plans be extended from short to long term. Lack of awareness and knowledge could be plausible reasons for short-sighted plans. Results are not immediate, but they come after a long period. The negative side of environmental improvements is that they tie capital and labor, which means higher operative costs. However, he sustained that positive effects prevailed over negative ones.

According to the interviewee, a sector-wide development of environmental management may have valid economic and social motives. Environmental

aspects could, in fact, become a competitive asset to the whole Finnish agriculture. The strengths of Finnish rural area are that it is sparsely populated and clean. A good environmental management makes consumers prefer domestic products, even if they are slightly more expensive, and in such a way guarantee that the countryside remains inhabited.

The interviewee said that the farm had started production in 1982, and since then environmental *actions* had been a part of its activity. He claimed that the effort towards improvement had been continual. The main environmental impacts are odor emissions and manure.

The interviewee mentioned the following specific environmental actions. About six or seven years ago, the farm had obtained a financing from the European Union for the development of the management of manure. A precondition for the financing was that the project would be published. In the initial phase, the farm used two big wagons for the movement of manure from the farm to the fields. The main objectives of the project were speeding up the operation, improve hygiene, and avoid dispersion of manure in the environment and, consequently, the risk of spreading of diseases. At a national level, the aim of this project was that of stopping the use of agricultural trailers on public roads because they damage and dirty them. Authorities had made farmers clean the roads, but the interviewee sustained that, on his part, the motives for the project were related to the acceptability of production, and to the image of the farm.

The respondent connected environmental aspects to agricultural buildings, and sustained that the conservation of rural landscape was very important. In his opinion, in the future, consumers will appreciate certain environmental considerations, therefore e.g. pig pens should be designed to suit the landscape, and give the impression of a typical Finnish farm. Package deals, used e.g. for crop dryers, were criticized for their industrial look.

The interviewee sustained that the quality of livestock breeding depended on the feeding of animals (which, in turn, depended on fertilizers and pesticides used in agriculture, and their consequent presence in feed). He proposed a uniform “*health card*” system used for cultivated lands, the aim being the possibility of verifying what farm animals had eaten. This system was intended to improve the heterogeneous system of classifications in force.

The interviewee sustained that the farm did not have external environmental collaboration. The influence of meat processing industry to the production was recognized. In his opinion, the meat processing company, object of this research, has a positive attitude to environmental issues, but it could make them more visible. Generally speaking, the Finnish food industry manages environmental issues well because it has to meet regulative standards.

5 EMPIRICAL FINDINGS: THE ENVIRONMENTAL MANAGEMENT OF THE ITALIAN CASE COMPANY

5.1 Perceptions of key change agents

5.1.1 The role of public institutions and companies

The attitude of the Italian case company to public control of food production was positive. In fact, the Retail Sales Director sustained that environmental degradation was a social problem that needed public intervention. The European regulative framework was regarded as important because the member states did not make isolated moves. There is culture and willingness in Europe to mitigate environmental harm, but the time span involved is a long one. He compared Europe to the USA and Russia, and claimed that the two last mentioned countries had a scandalous approach to the mitigation of environmental harm, demonstrated by their non-commitment to the Kyoto Protocol. Sustainable development could be used as a weapon by the economically weaker Europe to diminish the USA's excessive power.

The Managing Director was favorable to a more accurate control of food production, and focused on the need to apply with greater emphasis the control of raw materials. Control is necessary to guarantee a minimum level of environmental performance, to protect public interest. An efficient control is a question of mentality, and the regulative climate in Italy had developed remarkably only recently. An example is the application of licenses: it was normal for farms to do first and ask licenses afterwards. Preventive authorization has been driven by financing which has licenses as its precondition. A useful normative framework encourages preventive authorization. Regulations offer opportunities, like economic incentives (financing or fiscal benefits) rather than repress. Certifications would be useful in the relationship between authorities and farms because they prove that a farm meets established standards.

According to the Managing Director, regulative impulse comes, at the moment, from the European Union. It is desirable that various norms are further

harmonized and made more applicable. However, the problem is control, and more precisely the adequate organization and the technical level of control. The decentralization of public administration has had a positive effect on the functioning of control bodies. A decentralized system would be more efficient for the resolution of local environmental questions. With reference to the technical level of control, public authorities should have an adequate culture and adequate competencies to issue licenses to companies.

The Managing Director argued for a greater control of the entire meat production chain, but sustained, as already mentioned, that a more severe control of agricultural production would be desirable. Authorities should focus their control on feed manufacturing companies in order to guarantee the environmental quality of meat products. Moreover, veterinary surgeons should control animal feed, and not resolve to take action only in the case of epidemics. At the moment, the primary production, which is less visible to the market, is scarcely controlled: the use of pesticides, genetically modified plants and the warehousing of products need major attention from authorities.

The Managing Director also pointed out that there were regulations that limit the level of pollution and odor emissions of livestock breeding. Regulations put into proportion the number of farm animals with the arable area in order to guarantee an adequate disposal of manure. In recent years, regions have started to control if farm structures were balanced. He took the Po river's pollution by livestock breeding as a concrete example of the environmental impact of primary production. However, there are also many other serious sources of water pollution. An important field of intervention, to limit water pollution, is the development of urban settlements: a reference can be made to big cities like Milan.

The Managing Director sustained that regulative intervention had also its drawbacks. An example is the scarce integration of different laws. Different authorities should also dialogue more with each other in order to spare companies from presenting the same applications several times.

According to the Managing Director, it is sufficient that companies comply with environmental regulations. Imminent regulations (like the Integrated Pollution Prevention and Control, IPPC, Directive⁵⁰) stimulate companies to set improvement objectives. The Retail Sales Director claimed that the European Union should enhance corporate environmental responsiveness by financial incentives. He argued in favor of a regulative framework that prevents harm and makes environment an opportunity instead of a tax to be paid, as it was at the moment. An example of the prevailing approach is the contribution that producers and users of packages have to pay to the National Package Consor-

⁵⁰ In force from 1996, but does not interest the case company.

tium (Consorzio Nazionale Imballaggi, CONAI)⁵¹. A legislation should encourage development rather than prohibit it. One plausible incentive could be a public financing of environmental management systems.

5.1.2 The role of other social actors

The Retail Sales Director and the Managing Director sustained that environmental degradation was a social problem. They emphasized the role of schools. Changing of mentality has to start from schools, and business companies make their moves within the dominating cultural framework. The new generations are likely to understand environmental issues better than old ones. Something is happening at the social level, since e.g. political parties consider environmental issues.

The Managing Director argued that environmental issues were a challenge especially to companies that offer environmental services. In fact, environmental concern and consequent improvements have affected the food sector mainly indirectly, through the producers of production equipment. As a consequence, the use of certain hazardous substances like ozone destroying CFC's has been abolished or reduced in food processing.

The Managing Director pointed out that agricultural producers still used chemical products without discrimination, and without adequate knowledge of their correct use. He gave some of the blame to pharmaceutical companies which tend to encourage a massive use of chemical substances, and do not advise on their correct use. It would be desirable to increase the level of know-how of agricultural producers. They could turn to producer associations which offer technical assistance to their members. In particular, small farms and food companies need external consulting services, and it is important that these service providers have the competence to give valid assistance. Agricultural production is weaker and, as a consequence, may be directed to make incorrect choices. He also focalized on the role of the sellers of equipment; medium size companies like Raspini need competent assistance in order to make correct choices. An example is the combined heat and power generation, the people who sell this equipment are keen on claiming that the system reduces costs, but it is important to explain the technical qualities and assess its adequacy to production processes. In fact, an inconvenience of this system is that it only allows the production of one water temperature which excludes the hot peaks needed during processing.

⁵¹ The respondent observed that the tax that Raspini as a charcuterie producer must pay is irrelevant. The tax hits more pronouncely e.g. water producers, which use PET-bottles.

According to the Managing Director, there are many development possibilities, e.g. in the field of waste management, and therefore private companies specialized in environmental services play a key role. Each firm should concentrate its efforts on doing well those activities that it is specialized in. The case company should therefore concentrate on the manufacturing of hams and charcuterie, and try to do it as competitively as possible, in a morally and legally acceptable way. As a food company, it has to carry out its production activities, and it would not make sense for it to focus on environmental services. It is a specialized company, and therefore, alone, it cannot find solutions to environmental problems.

According to the Retail Sales Director, the task of directing consumers towards more environmentally benign behavior patterns belongs to public political institutions, in the first place to governments. One crucial task of the public sector is that of creating and maintaining appropriate structures, e.g. for the sorting of waste. At the moment, such adequate structures are missing in southern Italy. Information is important: a positive example is the communication campaign of the National Package Consortium (CONAI), which uses the mass media as an information channel. The campaign aims to make citizens aware of the problem of waste management, and to inform them on the possibilities of reuse and on the recycling of household waste. The Managing Director agreed on the importance of information. Consumers do not understand how the price of meat products is determined, and it would be important to make them understand the functioning of the supply chain.

5.2 Opinions about change forces

5.2.1 Perceived influence of external stakeholders

The respondents were asked to name the most important external environmental stakeholders of the company. The Managing Director and the Quality Director mentioned, in the order of importance, regulators and authorities, society, customers, competitors and consumers. The Retail Sales Director perceived the importance of customers.

The importance of farmers to the environmental impact of the food chain came up in the previous section, but they were not included in the list of environmental stakeholders. The respondents saw that farmers were scarcely interested in environmental issues, according to the Quality Director, the rural community is not very sensitive to them. In other words, she perceived that

farmers were not receptive to environmental ideas. The Managing Director agreed with the Quality Director, and sustained that agricultural producers had little sensibility to management systems in general. One possible reason for this disinterest may be the distance between farmers and the market (consumers). Other suppliers of the company, namely the producers of aromas, spices, and packages, have already started to implement quality or environmental management systems. Agricultural production in Italy does not have sufficiently modern structures which would help its responsiveness. In Italy, agricultural cooperation has less value than in many other European countries because it is not perceived as a factor of power. Instead of being a means to improve the technical assistance of agricultural operators, cooperatives are established for financial purposes, with the aim to obtain funds.

The Managing Director sustained that Raspini was strictly tied to the local territory, however, the local community was not seen as a key environmental stakeholder. The Managing Director and the Quality Director also responded to the specific question concerning the importance of environmental pressure groups, they observed that Raspini had (fortunately) not come into contact with them.

5.2.1.1 Regulative bodies and authorities

The Managing Director perceived that the company was strictly under the control of authorities. It has a good relationships with public authorities. One manifestation of this good relationship is the rapidity with which the authorities give their answers. The company has to fill in numerous applications, addressed to different controlling bodies, in order to obtain authorizations for structural interventions. Control has frequently a preventive nature.

5.2.1.2 Society

The Quality Director sustained that the company did not feel a social pressure towards the improvement of its environmental performance. The Retail Sales Director perceived that social attention to environmental problems, like the state of water resources, was increasing, he observed that they were widely discussed, and e.g. mass media treated them continuously.

5.2.1.3 Customers

The company did not perceive effective environmental pressure from its customers, but believed that certain demand was probably imminent. According to the Quality Director and the Retail Sales Director, customers, at the moment, do not demand an environmental certification or program from the company. Responding to the specific question, the Quality Director argued that big retail trade did not demand environmentally more benign packages.

When the company started to implement the standardized quality management system, it perceived that some customers required quality certification. The Managing Director observed that pressure was perceived from foreign, particularly British, customers. The big retail trade that operates internationally, at European level, is the most demanding customer, and expects producers to resolve their environmental problems. The Managing Director pointed out that this was a duty of producers.

The Quality Director specified that the most important driver for a certified management system was the willingness of the company to be ready when there would be an external demand for environmental responsiveness. All respondents sustained that the quality of products was at the moment a prerequisite, and if customers started to demand environmental quality, the company wanted to be prepared. A certain level of environmental management would become a prerequisite for making business with modern retail trade. Big customers pay attention to the environmental approach of their suppliers because they know that the problems of suppliers would have repercussions on them. Big customers have always been sensitive to prices, but ethical aspects have started to draw attention some time ago. Quality is interpreted in the sense of maintaining constant product standards, and in the sense of reliability of suppliers. Small customers are more likely to focus on convenience.

The Retail Sales Director sustained that environmental management systems were the future because retail trade would demand guarantees from its suppliers. Environmental management systems would become important, but not essential to companies that wanted to maintain their place on the market. A standardized environmental management system will become a part of the communication between industry and trade. He gave as an example two important food retail trade companies operating in Italy, namely, Coop and Carrefour, and pointed out that at the moment, environmental performance was not a factor of discrimination in the choice of suppliers. Coop pays attention to environmental issues, but has not developed a discrimination mechanism to be applied to its suppliers. It pays attention to the amount of packages and to the presence of genetically modified organisms in the ingredients of food products, but has not yet implemented an environmental management

system. However, industry wants to improve market-oriented communication in order to improve its visibility. At the moment, the relationship is built on minimum product quality standards supported by quality systems, and on commercial factors. The attention of retail trade to products that are sold under its private label is higher than its attention to products that have the label of the producer. An example is the requirements of British customers, which demand that the products sold under their private labels meet the global standards of the British Retail Consortium, and that their suppliers are certified by an accredited certification body that they accept. The qualified retail trade has developed in recent years, but the development of the national market has not been homogeneous. In northern and in central Italy dominate a modern and concentrated retail trade, characterized by purchase centers and retail shop chains, while in southern Italy there still prevails a fragmented system that pays less attention to either quality or security aspects. He gave as an example a wholesaler in Naples: it could well have in product range, contemporarily, products of Raspini and low cost products that did not have the same guarantee of origin. Companies that pay little attention to the control of production will have difficulties with the modern distribution.

The Managing Director observed that Raspini was not a direct supplier of public bodies, but had among its customers a catering company that served them. In his opinion, public canteens might include organic products in their menus. They take for granted that their suppliers comply with regulations.

5.2.1.4 Competitors

The Managing Director and the Quality Director acknowledged that the moves of competitors had increased the interest of the company in systematic environmental management. When the company started to evaluate the idea of implementing an environmental management system, in 2001, one important external driver was the perception that some competitors had started to take measures in order to implement a similar system.

5.2.1.5 Consumers

Consumers were seen as potential influential environmental stakeholders. However, they were not perceived to act as effective drivers for improvements. The Quality Director argued, in particular, that consumers did not demand environmentally friendly packages. The Managing Director claimed that consumers demanded first and foremost food security, and preferred therefore

familiar brands. It is important to the company to meet product security and traceability requirements. The aim is to anticipate the expectations of consumers. They are likely to expect to be more accurately informed about the origin of product and raw material. At the moment, the company has a pig meat supply chain certified to ISO 9001 standard, it is the first, and so far, the only one in Italy. The company offers two controlled supply chain products, for which it guarantees the feeding of farm animals, slaughtering conditions and traceability.

According to the Retail Sales Director, consumers buy food products from retail shops that they perceive as trustworthy. They expect that retail trade takes safe products in its product range. In other production sectors, environmental aspects have different meanings to consumers, and producers have to take them into account. He took as an example dishwashers, sustaining that consumers were currently using water consumption as one buying criterion.

5.2.2 Opinions about managerial voluntarism

According to the Managing Director, the approach of the company to environmental issues has its origins in systematic quality management. The company has started to implement a quality management system, certified to ISO 9001 standard, about six years ago. Some eight years ago, it had built an internal laboratory in order to analyze the quality of raw materials, semi-finished and finished products. Microbiological and chemical analysis aim to improve and validate products. The strongest driver for the establishment of an internal control system had been the interest of management. More precisely, at that time, the members of owner-family executed managerial functions in the company. The daughter of the Managing Director in charge in that period had been very interested in quality assurance issues, and this interest had been the necessary internal driver for taking the initiative. The internal interest was combined with the interest of customers.

According to the respondents, the owners of the company do not regard an environmental certificate as a mere piece of paper. The representatives of the owner-family are members of the board of directors. They are favorable to a systematic environmental approach.

The Managing Director did not emphasize his personal role in the intended introduction of a standardized environmental management system. He perceived that his personal activity in the organization was mainly directed to an optimal management of the company. The focus of the job is on satisfying customer needs, and assuring a good overall functioning of activities.

The Quality Director sustained that the idea of an environmental certification of activities had come up a couple of years ago, when the company responded to a notice of competitive examination, organized by a public organization, namely Environment Park⁵². Raspini was a successful applicant, and, consequently, it obtained public financing for an environmental analysis, conducted by Environment Park. The aim of the analysis was the introduction of environmental management and audit system (EMAS) regulated by the European Union. The analysis was free of charge and covered activities, products and services of the company. Both the Managing Director and the Quality Director sustained that the analysis had made the company aware of the idea of implementing an environmental management system. The company also perceived that some of its competitors had “*moved*”. Though the initial analysis aimed at the implementation of EMAS, the company was not convinced of its validity. The Quality Director observed that the publicity clause was seen as particularly discouraging, it obliged companies to publish an annual report. It was a big engagement and, in her opinion, it might encourage auditors to require corrective actions. The company also preferred a system that could be superimposed on the existing quality management system.

The Managing Director sustained that organizational size was an opportunity for the development of activities. Organizational members are near to each other and physically present. The company wants to maintain a lean structure because it is efficient and guarantees that the company is not obliged to grow.

5.3 Perceived motives

5.3.1 The ethical side of environmental responsibility

5.3.1.1 Managerial, organizational and external values

The Managing Director affirmed that he took environmental aspects into account in daily life, but personal concern did not lead to particular efforts to change behavioral patterns. The same attitude is true for the organization. He

⁵² The Region of Piedmont, the City of Turin and the European Union have founded Environment Park. Its main objectives are: the transfer of advanced solutions and innovative technologies, and the provision of professional training and information services to the small and medium size companies situated in the regional area (<http://www.envipark.com>).

connected values to rural territory. The Retail Sales Director sustained that environmental approach was a cultural question. His personal considerations consisted on the sorting of waste, and avoiding products that he perceived as being overpackaged. He also criticized wasteful consumption, and referred, specially, to the consumption of water and to the importance of preventive measures (e.g. in building design). He perceived that his environmental approach had an ethical basis. His children had made him think of what the world might be like tomorrow. The Quality Director argued that her environmental considerations included the sorting of waste and the use of resource efficiency as a buying criterion of electric appliances.

The principal formal objectives of the company are to:

- maintain positive economic results; and
- increase the volume of sales.

The means to achieve these objectives are:

- the control of costs;
- entrance to new markets; and
- attention to customer satisfaction.

The Managing Director sustained that the values of owners were relevant to the company, and congruent with organizational actions. The logic is to use resources diligently. From an ethical point of view, the company tries to be a valid interlocutor to its stakeholders. It seeks to satisfy the needs of customers by striving to offer charcuterie products that meet high standards of security, quality and image, at a competitive price. It operates in an agricultural area where mentality is typically conservative. The mentality of owners has spread a bit to all organizational members. Generally speaking, people working in the organization consider the environment as an important issue, though it is obviously impossible to say if it is always important.

The Retail Sales Director sustained that the most important informal values that prevailed among organizational members were a sense of belonging, and a sense of responsibility that derived from working in a serious company, which respected the products that it offered and the surrounding environment. The most remarkable change in organizational values took place when the company decided to approach quality issues systematically. Both the Retail Sales Director and the Quality Director argued that the implementation of a standardized quality system had been a great quality jump in the organization. Its implementation has required consistent efforts, and has stimulated cultural growth inside the company. Environmental issues would cause gradual, long-term changes: the change process is slow but inexorable, characterized by continual improvements and the impossibility of turning back. The environment is an ethical issue that cannot diminish, though factors that slow development may emerge. The Managing Director claimed that an attitude to talk frankly

and be positively-oriented was diffused in the organization, being one of its strengths. Organizational responsibilities are clearly defined and relationships based on transparency. These features contribute to the maintenance of mutual trust among organizational members. Another strength is the clear orientation of management to work towards the achievement of objectives.

The Managing Director perceived that the globalization of the market had not affected much the meat processing sector because it was not dominated by multinational companies. There is not enough social activism to enhance environmentalism, putting it bluntly, the company does not feel enough external ethical pressure to take initiatives. The Managing Director observed that nature was changing, and that change concerned all vital forms; he argued that once, natural responses were slow, but today, man's life style forced natural rhythms causing effects that could eventually get out of control. The technological development of food processes has to take these effects into account. Generally speaking, there is a willingness to grow inexorably without paying attention to sustainable development.

5.3.2 The profit-oriented side of environmental responsibility

5.3.2.1 Importance of eco-efficiency

According to the Retail Sales Director, cost efficiency is an important aspect of activities. The aim is that of offering safe products in the best economically feasible conditions. Both the food industry and trade face the challenge of finding a right balance between product safety and cost efficiency. The Managing Director emphasized the need to be competitive. Companies have to avoid environmental harm, but nonetheless, they have to be competitive.

5.3.2.2 Importance of environmental management to corporate and brand image

The Managing Director believed that environmental certification might add value to the company, though it was also perceived as a cost factor. The opinion was based on past experiences in systematic quality management. It is important that the company can say to its customers that it implements an environmental management system (like it now does with ISO 9001 quality system). He hoped that the company would, consequently, be confronted with

other companies of the same performance level, but not with those of a lower level.

The Retail Sales Director argued that there were valid market motives to implement a standardized environmental management system because it could become a factor that made a difference. A certified system can become an advantage when it becomes a factor that discriminates suppliers. Environmental approach counts in the relationship with big modern retail trade, but on the condition that the environmental culture of trade companies develops. If this occurs, proactive companies will have an advantage, and they can expect market to reward their choice. An environmental management system communicates that there is a serious organizational structure backing the company up. This communication reaches consumers who need adequate information about food security and the environmental approach of companies.

Raspini has just carried out a restyling of its corporate image and its unique brand⁵³. The Retail Sales Director observed that the restyling concerned the formal aspects, but not the substantial qualities of the company and the brand. The new slogan "*Raspini - salumieri per vocazione*" - "*Raspini - we have a bent for producing charcuterie*" - wants to communicate skill and security. The company wants to increase its visibility on the market, and therefore it is allocating for the first time resources to a vast communication program. It uses as communication channels specialized magazines and TV, the aim is to extend the distribution of products. It has also redesigned the packages of its principal products on the basis of conventional commercial criteria.

The same qualities characterize both corporate and the brand image. According to the Managing Director, the company wants to give extra value to the brand by guaranteeing security to customers and consumers. Therefore it focuses on the traceability of products and on transparency, and wants to highlight these qualities in product labels. Sooner or later environmental considerations would be included in the market-oriented communication for image reasons. The company has never understated environmental issues; there is no willingness to run voluntary environmental risks.

⁵³ The other dressed pork factory owned by Raspini has maintained its denomination Prosciutti Rosa, and the brand with the same name.

5.4 Effective and potentially feasible actions

5.4.1 Perceived commitment to environmental management

5.4.1.1 Opinions for and against the strategic importance of environmental management

The Quality Director argued that in the early 1990's, many production sectors had reacted to environmental pressures concerning their activities, but the sector in which the company operated had not been influenced. In other words, dressed pork factories and slaughterhouses have, in the development of environmental management, remained a step behind. A plausible reason for this disinterest is the absence of big environmental problems within the sector, though recently e.g. BSE scandals have evoked interest. The Managing Director observed that the company had given up the slaughtering phase in 1980's, and from that moment, its environmental impact was minor. The decision had been taken to improve the possibility of selecting raw materials that meet high quality standards.

The Managing Director did not see environmental management as a strategic question. It would help the company to prove to the public how it operates. The opinion of the Retail Sales Director was different, he sustained that environmental management was a strategic question because it concerned organizational culture. Environmental responsiveness is a cultural investment, while economic investment in environmental improvement remains an issue of secondary importance because environmental concern becomes important only when it results in cultural growth. The meat processing sector causes a relatively low environmental impact, the sector is rather "*natural*" and low risk because highly polluting substances are not used.

According to the Managing Director, there are some general socio-economic trends that influence the importance of environmental management. These trends are the growing awareness of the scarcity of water, and the consciousness of a dependency on non-renewable energy sources. The considerable need of water in productive processes may cause scarcity problems.

According to the Managing Director, an important achievement of the company is offering products that meet high standards. The company also sustains that its primary objective is guaranteeing the security and the healthiness of its products. This is pursued through a use of genuine raw materials, advanced

transformation and control processes. The environment is not a secondary element of the integrated picture.

The Managing Director sustained that environmental management would never become a strategic issue only for Raspini, he believed that there would be a wider strategic attention to environmental issues. He also sustained that the environment would never become a strategic, differentiating competitive factor, and if this were the case, the company would have to sustain that it was environmentally better than its competitors. However, the discredit of competitors would not be correct.

During the interviews, the company was building a new complex destined for offices and canteen, this project did not contain environmental considerations. The Quality Director explained that the building was based on a plan that had been approved some time ago, because the plan was “old”, and the issue was an extension of the existing administrative area, environmental aspects had not been included in the project. The Managing Director excluded explicitly that environmental management would imply structural investments.

5.4.1.2 Environmental issues in managerial and operative work

The Managing Director argued that the company had started to pay considerable attention to environmental issues a long time ago, the organizational members were aware of the environmental aspects of the company's activities. Environmental aspects are connected to the ordinary activities of the company, but this occurs without specific effort. The Quality Director perceived environmental management principally as a technical question.

The Managing Director sustained that environmental issues were not influencing the sales function, he believed that the commercial organization had to focus on understanding and satisfying customer needs. In other words, sales management must find what customers need rather than consider environmental issues. The question is not due to a lack of willingness in the people who work in the sales function, but about business requirements: the company either supplies products that have the characteristics requested by customers, or another company will. However, Raspini does not want to be a promoter of negative environmental actions, but because the company does not have a leading position in its sector, it cannot affect the choice of consumers.

The respondents observed that the company had recently established a position of Marketing Director, and sustained that this new managerial figure would probably be involved in the development of an environmental approach. In particular, the Marketing Director will be responsible of market-oriented environmental communication. Later there will be a new position of

Environmental and Safety Director responsible for the maintenance and development of production processes, with the rest of technical management. The human resources the company could allocate to the development of environmental management are, at the moment, insufficient.

According to the Managing Director, an environmental management system like ISO 14001 represents, in an organization that intends to implement it, a big cultural step. He believed that the limited size and the line form of the organization would facilitate environmental responsiveness, and consequently, the implementation of quality and environmental systems. The organization is in search of synergies, therefore environmental management must be integrated in technical service. Integration concerns also the production of environmental information.

The Managing Director sustained that some organizational behavior norms included environmental considerations. One of these is, lights must not be left on unnecessarily, another is the fact that employees must participate in an obligatory training on food hygiene and security issues. The training contains also environmental communication because it is included in good manufacturing norms. In recent years, Raspini has organized basic training and ulterior specialized courses for its employees.

The company has recently grown from small to medium size. The Retail Sales Director and the Managing Director sustained that the relationship between the employees and the management was very positive. Employees care for the company because they have seen how the management has made efforts to improve their conditions. In the organization prevails a positive attitude, as e.g. the interest of the employees in the quality management system shows. According to the Managing Director and the Quality Director, the organization is the most important environmental stakeholder.

There is no reward system to encourage the initiatives of employees. The Managing Director observed that the company had not stimulated quality improvements with a reward system, and it was not its intention to use such a system to involve its employees in environmental improvements. They are introduced according to a top-down-logic, but the control is carried out in a collaborative spirit, control functions are in many cases informal and based on common sense.

5.4.2 Perceived environmental behavior

5.4.2.1 Unilateral measures to improve environmental performance

The company is not using environmental *management tools*. The Managing Director and the Quality Director sustained that at the moment, the priority was updating the information on the environmental and economic consequences of activities. An occasion was offered by the analysis, conducted by a final year student of engineering, of the water resources of the company. The company was interested in analyzing its water use to increase its knowledge of consumption, to prevent problems, and to improve the use of water resources. The first necessity is understanding where water is used and secondly, take measures to save it. The company was to exploit exploratory analyses to attain an ISO 14001 environmental certification.

The Managing Director believed that in the future, environmental accounting may support a certified management system, it may be useful for communicating the effects of environmental management to the owners, and these have to be informed of any negative event or factor concerning the company.

The company has formulated a quality policy, its implementation is monitored with the help of measurable indicators. The achievement of goals is analyzed, new goals or performances are identified, and resources allocated to achieve the desired results. The company has formulated, with the help of Environment Park, the following environmental principles for its activities:

- The company fully respects all environmental laws and regulations.
- The company operates in conformity with the ISO 14001 environmental standard.
- The company prevents direct and indirect pollution.
- The company pursues a continuous improvement of its environmental performance and management system within a framework that applies the best economically feasible technology.

These principles were formulated in 2002, but the Managing Director observed that the company, at the moment, had not yet established environmental goals, but these, once established, would surely be related to energy saving as also to other methods of consumption reduction. Goals have to be useful and measurable, achievement has to be verifiable and controllable.

The Managing Director claimed that the company began to implement an ISO 9001 quality system as to achieve positive economic results and increase the volume of sales. The Quality Director sustained that the requirement of quality certification was becoming severe. The standardized quality system

has brought new customers, with a rough estimate, it has contributed to increase the share of cold cuts in the turnover from 2% to 20%. The company has had a good experience in the implementation of the system, as witnessed by the veterinary surgeons that control the products. The perceived improvement refers to rules to be respected, organizational structures, and the building yards for the extension of productive spaces.

An environmental management system is seen as being an extension of the certified quality management system that the company implements since 1997. The Managing Director pointed out that the company wanted an environmental certification because it already met the requirements for its achievement, it is already in harmony with the spirit of a standardized environmental management system.

The Retail Sales Director sustained that environmental management systems were processes of continuous improvement, the first who move would be one step ahead of others. Those who have decided to change mentality will perceive it as being a process of improvement while the others will perceive it as being a cost.

The Quality Director observed that the company had recently bought another production site, and was working for the attainment of a quality certification. Furthermore, the company's British customers demand from their suppliers meeting with the British Retail Consortium's global standards. These objectives have delegated in a secondary position the achievement of environmental certification for the main production site because the human resources are insufficient for the accomplishment of both procedures.

The company has a quality policy based on the following objectives to:

- guarantee safe products to consumers;
- maintain certification to ISO 9001 standard;
- increase the market share;
- increase profit margins by decreasing costs and improving the efficiency of production;
- optimize the use of software to improve internal communication and decrease the use of paper documents;
- improve the management of production processes; and
- maintain, and possibly increase, the trust of customers and consumers.

The company has identified, with Environment Park, the critical areas of intervention, which in turn, are the basis for environmental objectives. On the basis of the critical areas of intervention, the company states that it pursues the following environmental objectives to:

- decrease energy consumption and optimize the use of natural resources;
- communicate with customers and suppliers as to improve, when possible, the integrated environmental management;

- make employees aware of environmental issues and involve them in the identification and mitigation of environmental harms;
- limit the environmental impact of production by paying attention to the reduction and sorting of waste, and to the optimization of wastewater purification; and
- possibly prevent environmental anomalies.

The Quality Director sustained that a management system had to be efficient, effective and economic. The Managing Director perceived that certification is a way to prove that something has been done. The system establishes a needed procedure for improvement, otherwise one might do nothing. ISO 14001 system may support business management. The environmental management system would not become a medal to be shown, but rather, an effective tool for improving performance and professional skills. It would not be “*a flash in the pan*”, but there would be improvement parameters. It would improve, more than the quality system improves quality, environmental performance.

The company wants to integrate the required auditing procedures for quality and environmental management systems. It makes auditing visits to suppliers (twice a year), also abroad (in France) in order to verify that the specifications of supply contracts are met. The key aspects are traceability and hygiene of products. The former is an advantage if there is the need to withdraw products from the market.

The company is not particularly interested in environmental ***communication tools***. It has formulated a statement, to which the development of activities must be sustainable and compatible with the surrounding natural environment. Development must be in the direction of continuous improvement, maintaining a fair balance between social, environmental and economic responsibility.

The company does not publish an environmental report, and is not interested in its potentialities, the Managing Director claimed that it would be difficult to give environmental information by means of a published report.

The interest of the company in eco-labels is minimal. It produces a marginal amount of organic products in response to market demand, the production takes place once a month. The Managing Director observed that environmental issues have been used in the labels of some products in a naive style. The company's main issues are the freshness and the methods of preservation of products. Traditional production methods are often associated with the best product quality, though it is not certain that they are better. The company sells products under its own brand, but produces also for private labels. The label “*Raspini- products of Italian origin*” always contains the name of the farm that the meat comes from.

The Managing Director sustained that environmental communication did not, at the moment, contribute to the achievement of higher profit margins. He hoped that efforts to improve environmental management would enhance the perception of product security, and be regarded as evidence of good performance. The company seeks what consumers are interested in, and gives the information on the packages of products accordingly, however, within the limits of available space. It wants to communicate to the market that its employees are proud of being part of the company. It has acknowledged the importance of transparency on the origin and ingredients: it has increased with the “*mad cow*”-psychosis, etc. The Retail Sales Director highlighted consumers’ limited capacity of receiving environmental information, though he claimed that they needed major security guarantees. It is essential to find the right way to communicate environmental aspects. Many consumers do not e.g. know what the concept of controlled supply chain means. Raspini gives advertising material in retail shops, with information on the origin of products guaranteed by the procedures of a controlled supply chain. Environmental communication would have meaning only in business to business marketing. According to the Retail Sales Director, trade and industry should inform jointly consumers on the environmental aspects of products. Since certification is expensive, it is desirable that industry and trade share the cost of market-oriented communication.

According to the Managing Director, the company’s products are not classified as primary necessity goods, and it is not possible to say, without ambiguity, that charcuterie are good for the health. A voluntary non-profit consortium has been founded to inform the productive nutritional and cultural aspects of charcuterie products, and to enhance the image of Italian charcuterie⁵⁴. The aim is to inform target groups (e.g. doctors) and improve communication (e.g. through specialized journals). Environmental aspects have not been connected to this communication.

The company relies on environmental improvements based on ***technical and technological measures***. According to the Quality Director, recently there have not been significant technological innovations in the meat processing industry. She gave as an example of past innovations the processes of protective environment⁵⁵ that have extended the shelf life of products. The aim of technological development is the improving of the constant quality of products, and decrease the use of preservatives. Its influence on duration and quality of products has an indirect effect on costs because the amount of waste

⁵⁴ See Istituto per la Valorizzazione dei Salumi Italiani, <http://www.salumi-italiani.it/ivsi>.

⁵⁵ Protective environment is used in the packages of food products from 1960’s: the process consists of the reduction of oxygen inside the package and its substitution for a protective gas.

products can decrease (nonetheless, product returns are not frequent). Since the amount of deteriorated products decreases, the level of customer satisfaction increases. If the volume of production was higher, the company could be interested in investing in more advanced technologies. The Managing Director sustained that the company sought to pursue eco-efficiency in its choice of equipment, though there was no concrete example of such choice. Equipment must be economically convenient and technically adequate. Environmental improvements would more likely be small technical interventions, like a water recycling circuit of sterilization equipment (autoclave).

According to the Retail Sales Director, technological development and innovations play a very important role in corporate environmental approaches. In the meat processing sector, the most important innovations would not concern transformation processes, but the sources of energy. He took as an example of future potentialities renewable hydrogen energy. The company has a heating plant, there is no system of recovery of process heat.

The company has, some years ago, invested in equipment and in the reorganization of productive spaces. In 1994, it applied new, innovative technologies in the production of raw salami. In 1987, it inaugurated a new plant for the production of cooked ham. The company has, in 2000, seen the conclusion of an important phase of development; a new, totally computerized dispatch department and "*salles blanches*" for preslicing operations. It has extended its activities by using the old buildings (there are e.g. four new preslicing lines). This has created some inefficiency in material flows, which need to be reorganized in order to define them clearly, and to eliminate the crossing of different product flows.

Production takes place in various departments in one or two shifts. Changing from one production to another requires careful cleaning. In fact, the company uses water mainly for cleaning and sterilization of equipment. Cleaning processes have improved thanks to more efficient detergents with a longer application time that allow a reduction of water use. Hygiene requirements set limits to the integration of different production types, pork and poultry production must be separated for hygiene reasons. The company commercializes poultry products, but does not produce them because the volume would be too low, the need of cleaning would increase excessively. Cleaning services were of an external facility provider.

The Quality Director said that the company used, until recently, water from a well in its property, therefore it was not connected to the municipal water supply network. The connection to the network has made water an important economic issue.

The packaging of products is mostly automated, one part of packaging is still manual. According to the Quality Director, automation makes operations

quicker and improves hygiene. The Managing Director argued that the substitution of PVC for packages in polyethylene had been an environmentally benign decision. In Italy, producers and users of packages have to join the National Package Consortium (CONAI). It is not always easy to transfer these costs on to final consumers. The Quality Director observed that not all packages were recyclable after consumption. Product security sets requirements for materials. In particular, the packages of cooked hams are made of a number of films of different materials coupled by pasting, different films are difficult to uncouple, and to now, the company has been unable to sort waste packages, and final consumers have been unable to sort packages after use.

The Managing Director sustained that good environmental management implied efforts to sort as many materials as possible. Environmental improvements can diminish consumption and the amount of waste. Certain recent regulations, like the IPPC Directive, impose rules on industrial installations. The IPPC Directive sets the use of BATs as a prerequisite for licenses, but it does not concern small meat processing companies whose volume of production does not exceed the established threshold.

The Quality Director argued that paper, cardboard and plastic containers were sorted in production processes. The intention is also separating glass, batteries and waste plastic packages, and the introduction of sorting to offices. Production processes generate organic waste, like bones and fat. They are not risk materials, but their disposal is a cost that the company has to bear. According to the Managing Director, an external company uses them presumably as fertilizers and pet food. These waste materials used to be sold at low cost, but at the moment, disposal is a cost.

The Managing Director and the Quality Director sustained that the size of the company did not permit internal package research and development. Package industry did not propose new valid alternatives. Packages are expected to be simple and bring out the freshness of products.

The Quality Director argued that the most critical environmental impact was caused by process wastewater. It is dispersed in the nearby river, but first it is treated in an internal purification plant, now in use since four years. The water purifier is an environmental investment, formerly, there was no drainage channel, the company had decided to bear the cost of water purifier, also a necessity for the complying with new regulations. A purifier generates an adequate global benefit. Wastewater is analyzed according to regulative requirements, and then, mixed with technological waters, which do not need purification. Cleaned water is conducted to a balancing basin, where water is separated from sludge, and then let out. Sludge is extended on the agricultural fields that are in the company's possession, and cultivated with pine trees.

Legislation imposes a duty of the purification of the rainwater that falls on the external area of the production site (the first half hour of rain). However, many companies do not observe the norm because there is no control.

The Managing Director sustained that the impact of air emissions was low. The methane running heating center is not a significant source of pollution. The company had changed from fuel to methane for commodity and cost reasons. Thanks to a series of operational decisions (like the abandonment of slaughtering), the production site does not cause odor inconveniences to the local community.

The Managing Director also observed that the company had eliminated materials containing asbestos. It would have been sufficient to paint them, but it chose a more expensive solution, namely the substitution of materials. They were only used on a external roof, and the substitution had been preferred to painting because it solved the problem definitely.

5.4.2.2 Multilateral measures to improve environmental behavior

The Managing Director argued that the company was interested in establishing **collaborative relationships** that generated convenient eco-efficient solutions. Potential collaborators could be research centers, service companies, industry associations and external consultants.

The Managing Director also sustained that size did not allow the company to impose codes of conduct to most of its suppliers. The quantities that it buy are not that critical to suppliers as to interest them in the engagement of certain procedures. He gave as example the production of a typical ham of the zone, *“The ham of Piedmont”*. It is a local product, which means that the breeding and the slaughtering of animals take place in the area. These meat suppliers do not have certification, and if the company imposed it as a precondition, they would find another buyer for their products.

The company sustained that internal quality specifications to meat suppliers were severe, specially in the case of the controlled supply chain that offers consumers a greater guarantee of the origin of products. The company controls and guarantees on the origins of farm animals and their feeding, the hygiene of production and the quality of meat. Suppliers are also required to take into account the environmental impact of their activities, and pay peculiar attention to living and transport conditions of farm animals. A standard requirement is compliance with all regulations, but more specific requirements concern the products of controlled supply chain. The company receives meat raw material in pieces, each of which is identified by a label.

The Managing Director explained that the company had direct contacts mainly with slaughterhouses, and did not necessarily know the primary producers. The farms that supply meat to slaughterhouse and, from there to the company, do not have certifications, and neither have the suppliers of Raspini's competitors, though there may be single exceptions. Operations would be facilitated if agricultural producers had at least a certified quality system. It would guarantee that the activities were guided by similar rules. Supply contracts are quite open, but it is a cost to the company to accredit a supplier. A conventional way to manage the relationship is to trust suppliers unless there is a good reason to believe that there is a problem. The correct functioning is controlled by sample taking and by control visits. An important driver towards the establishing of a closer relationship with suppliers is the need to guarantee the traceability of products. At the moment, it is possible to identify the meat and the ingredient suppliers of each product. Regulative pressure to guarantee a more extensive traceability system is imminent. The Managing Director believed that the implementation of an environmental management system would change the relationship to suppliers; they would be asked to provide a more accurate objective evidence of the way they operate.

The company buys raw materials also abroad, from French, German, Dutch Danish and Hungarian suppliers. Previous scandals tied to the Belgian meat have stopped importation from Belgium. The situation is not under control, and the company wants to avoid problems that could damage its reputation.

The company's distribution strategy is built on multiple channels that cross the whole domestic territory. The main market areas are in the Northern Italy (Piedmont, Liguria and Val d'Aosta), near the production site. The company also exports its products to Europe, the United States and Japan. The chosen distribution strategy uses a mixture of channels: big retail trade, catering and traditional, more or less evolved small retailers.

The Quality Director claimed that big retail trade set to products specific requirements before accepting them in its product range. It demands e.g. products that do not contain milk proteins and that contain only natural aromas. Customers appreciate transparency: it means that they find answers and right interlocutors. Environmental certification could improve the relationship between the company and its customers: it could be a guarantee, and, consequently, make the signing of extensive quality specifications unnecessary.

The Managing Director observed that the company had found buying electric energy from a local consortium economically convenient. Idroenergia, the consortium, controls the consumption and gives monetary sanctions to companies that exceed the limit. Raspini has regulated its energy consumption by setting a sequential start of equipment to avoid blackout situations.

The Managing Director was not enthusiastic of local collaborative environmental relationships. On the contrary, he argued that they would not fit to the local way of thinking. He highlighted the experience of the company in the resolution of wastewater problems: it invested in finding a solution, though without any institutional support or local partnership.

The company buys the needed transport services from external companies. In fact, it is an important (almost exclusive) customer of many small transporters. An aim is to organize the provision of raw materials so that arriving vehicles are fully loaded. The companies can serve, contemporarily, several companies, they charge for the service on a base of kilos transported. The company check that transport vehicles meet appropriate hygiene standards and monitors the internal temperature of transportation spaces. The Managing Director assessed roughly that in about 90% of cases, the relationship functioned well, nonetheless, there were possibilities as to improve efficiency. The standards of the company are based on regulative compliance: in particular, transport service providers are expected to comply with food hygiene legislation (Decree 155/97; Directives CEE 43/93 and CE 3/96). They are expected to avoid delivery delays and return of products. On a rough calculation, half of deliveries are directed to big retail companies, and the other half to traditional retail shops. In the latter case, transport service providers have a strong relationship to customers: they know them one by one, and if they find the shop closed, they know which doorbell to ring.

5.5 Perceptions of the representatives of supply chain

5.5.1 Retail trade

This section briefly reports the official environmental approach of an important Italian retail trade cooperative, namely Coop⁵⁶, one of Raspini's most important customers. The approach is described with the help of the conceptual framework built in this research.

The cooperative takes environmental initiatives because it believes that consumers have a right to be informed and defended, it adopts environmentally benign practices, and has promoted awareness campaigns for consumers and public institutions. This commitment reflects its attitude towards the *key agents of environmental change in society*.

⁵⁶ <http://www.coop.it>.

The cooperative follows accurately the development of environmental regulations. They are influential *change forces*, but in several fields the cooperative establishes patterns of behavior that exceed compliance.

The cooperative has institutional *motives* for its peculiar attention to the issue of environmental protection. It has both economic and social objectives, the environmental approach is connected to the social objective; defending consumers' rights. Other key objectives are the information and also education of consumers and younger generations, and the modernizing of the national distribution system.

Environmental *actions* are based on an environmental program. In the articles of the cooperative, environmental protection has a strategic role. It has built an environmental program on the following five areas of intervention, which also represent the critical environmental aspects of its activities: private label products, products accepted in the product range, retail stores and logistics, packages and waste, environmental education, training and communication. The cooperative promotes numerous campaigns that aim to defend the health of consumers and the surrounding environment. In the food sector, such campaigns include e.g. the use of pesticides in agriculture, packages, ecological fishing techniques, environmentally friendly retail stores, organic farming, and the use of genetically modified ingredients in products.

The cooperative has e.g. taken initiative to limit the use of pesticides. Their use is limited in products under its private label since 1988; it has also promoted an information campaign to make consumers and public institutions aware of the issue.

The cooperative assesses its suppliers at the beginning of the relationship (documents and visits), and controls them subsequently by regular controls and samples. In the case of meat, the cooperative controls the total quality, i.e. the whole production process of meat, including feed, farms, slaughterhouses, meat processing companies, transports and retail stores. The control has two objectives: the first is the final quality of meat, pursued by production parameters, and the second is the healthiness of products, pursued by the control of the supply chain.

The cooperative states formally that it selects its suppliers in the interest of its members and consumers. It appreciates suppliers that value cooperative economy, are environmentally aware, and have good reputation, ethical codes of conduct, social programs and correct employment policies. It applies, since 1996, to its suppliers environmental quality standards. Supply relationships are based on transparency, honesty and mutual correctness. The products that are sold under the private label must meet more severe standards, which from the environmental point of view, go beyond compliance. These standards do not allow, in particular, bone meal and genetically modified ingredients in farm

animal feed. It imposes environmentally ethical codes of conduct to farms, and constantly controls the whole of the supply chain.

The cooperative recognizes packaging as being, at the moment in Italy and in the European Union (Agenda 21), a problem, and follows the development of the regulatory framework. It has been the first Italian distribution chain to implement an environmentally concerned package policy.

The cooperative has strengthened its efforts to provide environmental information on the labels of products. Such information concerns the quality of package, possibilities to recycle it, and the percentage of recycled materials used. It has established experimental collection points in retail stores to enhance the sorting of packages after consumption. It also lectures at schools on environmental issues.

The cooperative is committed to rationalize the transport and distribution system in order to decrease consumption and emissions, and to reduce the weight and the volume of distribution packages. There are both internal and external work groups to optimize transportation. External work groups include big industrial producers. The goal is the reduction of emissions in transport, and reduction of unnecessary transport packages.

5.5.2 Meat supplier

This section reports the data collected from an Italian slaughterhouse, supplier of Rospini, namely Carni Dock. The purpose of this report is to shed light on the importance of environmental management in the slaughterhouse, and on the way by which environmental management influences the relationship of the slaughterhouse to the meat processing industry. These questions are examined with the help of the conceptual framework built in this research.

For the Managing Director of Carni Dock, the *key agents of environmental change in society* are public institutions. He perceived environmental degradation as a cultural problem, and sustained that the prevailing cultural approach of society did not enhance the prevention of pollution. Public institutions do not pay enough attention to environmental issues, for example, they should provide more information about the sorting of waste and, thus, foster its diffusion. Appropriate channels of communication would be e.g. television programs and spots. Public sector should organize structures, give incentives, enhance environmental culture, and establish adequate control in order to involve families in environmental protection. Individuals can transmit environmental awareness to their children.

The Managing Director gave as a general example of cultural approach the non-compliance of the USA to the Kyoto Protocol. He believed that if the citi-

zens had been better informed they might be against the non-compliance policy. However, he also sustained that the biggest cultural changes had already taken place during the 1990's, and hoped that all these changes would have contributed to the creation of a new culture. Companies should contribute to change by adopting the best available and economically feasible production technologies and practices. The Quality Director sustained that a collective development of all sectors would have been desirable: regulations should set common rules and companies should demonstrate their compliance, e.g. by implementing a certified environmental management system. The development would be slow, it is a question of mentality: quality per se has a cost, but if everybody wants a certain level of quality, it becomes self-evident.

The Managing Director sustained that both present and imminent regulations and expectations of trade were the most influential *change forces*. However, at the moment, there is no pressure to take further environmental actions. Retail has the power to influence its suppliers. The company follows the development in order to be ready for regulative restrictions. The Managing Director claimed that the development of environmental performance was driven by internal willingness. Employees have to be reminded, time after time, of correct practices. Doing good work costs money and willingness.

According to the Managing Director, a good *motive* for environmental responsiveness is the fact that a healthier world is better for everybody, he observed that such philosophy was not, however, prevailing. Having children had made him think of the future consequences of actions, and feel anger for global failures like the Kyoto protocol. Conscience has driven certain choices that exceed compliance. From the regulatory point of view, the company was perceived as being "*super up-to-date*". The company has e.g. chosen a water purification system that exceeds compliance. Since municipal purification systems have problems, it decided to pay attention to the quality of wastewater. The Quality Director of Raspini sustained that new possibilities to meet the expectations of trade stimulated meat producers like Carni Dock to implement quality management systems. The Managing Director of Carni Dock agreed with her: he believed that certification would be an additional point on the visiting card of the company.

The Managing Director listed some *actions* that he regarded as being, effective or potential, environmentally concerned choices. The company might implement a certified environmental management system in the future, but the decision is likely to become of current interest after five or even ten years. It is assessing the possibility of implementing a certified ISO 9001 quality system. The production site already meets certification requirements, but the company has to adapt its purchase and sales functions. At the moment, there is talk of environmental certification in the meat sector, but it is not yet an issue of

interest. Other production sectors are more strongly affected by regulations, like the IPPC Directive. The meat sector undeniably causes environmental harm, but only to a certain degree. It is important to operate within the limits of legality.

The organizational structure of Carni Dock has recently evolved from family run to modern. The company has established a year ago a position of Quality Director, and built a laboratory for sample taking.

Production hygiene is an important issue to Carni Dock. There is an external facility company for the sterilization and the cleaning of production spaces, Carni Dock monitors these activities with the help of cleaning records that the facility company must fill in, and by analyzing the cleanliness of production surfaces.

Effective environmental actions consist of technical and technological choices. The company has e.g. changed the water heating technology, substituting fuel for methane. The productivity of fuel was higher, but it was not a cheaper alternative. The company is also attentive to the sorting and to the adequate disposal of waste. It has e.g. a tank for organic waste that needs to be disposed by a specialized waste management company.

According to the Managing Director, electricity is a strategic resource, in a future, the company might be interested in installing solar panels, but at the moment, they cannot produce high enough temperatures. It is also necessary to take the quality-price relation into account: *“you cannot buy a Ferrari with a normal wage”*. A reference to the combined production of electricity and heat was made, it was regarded as a good solution, but economically out of reach.

Carni Dock was extending its production spaces. It does all that is possible for the environment by choosing modern equipment. The Managing Director sustained that the environmental impact of new spaces was taken into account, both by complying with the latest regulations and by choosing the latest technological solutions, used mainly in the cold storage rooms. The slaughterhouse needs powerful cooling systems to conserve meat, this is an area that needs development. At the moment, processes are based on water, it is a challenge to save water substituting it with air in cooling processes.

Carni Dock is a slaughterhouse, but it also has its own pig breeding facilities. The Managing Director sustained that environmental responsibility played a role in farming activities, he gave as example, the disposal of manure and the number of farm animals in relation to agricultural fields, and pointed out that farms had to comply with relative regulations. Attention is paid to the welfare of farm animals: their life lasts nine months, so make them live well. Generally speaking, the treatment of farm animals has improved considerably in the past six or seven years. An improved treatment has produced good results in the whole supply chain because qualitatively inferior stress meat is

avoided. Pigs are very gourmet and pleasing them increases their well-being. All supplier farms of Carni Dock are local, which means that animal transports are short, the maximum load is about sixty or seventy pigs, animals are allowed to rest after transportation. The Managing Director observed that drivers of transports were demanded to manage animals properly, mistreatment would be reported to authorities. Sensibility to ethical treatment of animals has grown. The rule of the company is to cause minor pain and stress. There is a veterinary surgeon that controls the treatment and the slaughtering of animals. For the outgoing products, which are mostly semi-finished products, it is important to maintain an adequate cold chain, and assure the hygiene of transports. Regulatory compliance demands that these aspects are constantly under control.

Carni Dock is specialized in slaughtering. It sells two raw ham final products under its own brand name: Crudo Dolce Doc and Parma Dolce Doc. The hams are seasoned by an external company, situated in Parma, and sliced and packaged again by Carni Dock. At the time of interviews, Carni Dock was designing a new label for its products. The Managing Director sustained that the company wanted to communicate that it operated correctly and in a socially acceptable way.

6 SUMMARY AND COMPARISON OF FINDINGS

6.1 Findings of two case companies

6.1.1 Perceptions of key change agents

The representatives of both case companies supported a *public vision* of environmental management, they were favorable to regulation and public control of performance; regulative bodies should dictate the environmental objectives of companies. Regulations were seen as key drivers for environmental responsiveness, and were perceived as being necessary and useful for the mitigation of environmental harms, which often means internalization of costs.

Companies expected a clear and equal normative framework made effective by adequate control. Control is adequate when it effects critical activities, it aims to guarantee par condition, i.e. to impede free riding. The Italian company emphasized the need for a positive relationship between regulative bodies and companies. It sustained that regulative culture had only recently developed in Italy, and companies had incentives to operate within legality from the very beginning of their activities. The development of a regulative culture has been strongly driven by the European Union. For the Finnish company, authorities also represented development partners.

Though public control of corporate environmental actions was accepted and its merits recognized, it was not spared from critique. The main problems were the mutual contradiction and the unfeasibility of regulations. The companies emphasized slightly different, yet not incoherent, remedies for these problems: the Finnish company sustained that regulative bodies should consult interested companies before enacting new regulations. Moreover, it argued for the importance of reliable scientific information to correct interventions, and to a minor weight of political interest. Both ecological and political interest can be in conflict with the economic self-interest of companies, but it is more difficult to protest against the first mentioned.

The Italian company emphasized the importance of guaranteeing an adequate organizational and technical level of controls. Unlike the Italian company, the Finnish company produces beef products, and has been directly affected by regulations enacted in response to the BSE epidemic. In fact, it criticized their foundations, it sustained that the regulator had not collected sufficient scientific evidence, but had decided on the basis of political convenience.

Both case companies identified, beyond the regulative and the control function, other functions to public institutions. In the Finnish company's opinion, public institutions should attend to the availability of reliable scientific information, this would help companies in making correct environmental decisions. According to responses, companies could do more, but the lack of ethical drivers, and the reluctance to make individual moves tend to moderate responsiveness. The Italian company sustained that public institutions should encourage companies by means of economic incentives. This puts into evidence the limited economic resources of medium size companies.

The representatives of both case companies supported the concept of a compliance-driven corporate environmental management; they were favorable to *participative* intersector development. The Finnish company specified, it was unlikely that companies took initiative alone because it did not lead to a competitive advantage.

Both companies mentioned the limits of proactive environmental responsiveness. The Finnish company sustained that complex and interlinked social problems could give rise to problems of credibility and capacity. The Italian company argued that companies focused on competitiveness and on specialization. In this opinion, the real environmental challenge concerns companies that are specialized in production equipment, environmental services and consulting.

Both companies saw that public institutions influenced consumer behavior. The Italian company added that the public sector provided adequate structures for environmentally benign practices, like the sorting of waste. Both companies sustained that consumers did not act as effective environmental drivers because they did not have adequate and sufficient knowledge of productive reality. The Finnish company added that it would have not been fair to assign such control functions to consumers, but awareness of problems could be expected from consumer associations: they fostered environmental thinking in society by keeping alive environmental debate.

Table 6.1 (on the next page) summarizes the comparison of findings concerning the key change agents.

Table 6.1: Comparison of findings concerning the perceptions of key change agents

<i>Perceptions of key change agents</i>		
<i>Finnish company</i>		<i>Italian company</i>
	<i>Public intervention:</i>	
	Regulation and control	
Provision of information.		Provision of economic incentives.
Public authorities as development partners.		Necessity to create a positive climate between companies and authorities.
	Contradictory or unfeasible norms as inconvenients.	
Consulting of companies and use of scientific information as remedies.		Adequate organizational and technical level of control as remedy.
	<i>Other social actors:</i>	
Corporate responsiveness limited by the lack of credibility and the complexity of problems.		Corporate responsiveness limited by specialization.
		Public institutions should provide structures
	Public institutions should influence consumers.	
	Consumers are not well informed.	
Consumer associations can stimulate debate.		Environmental service companies face the real challenge.

6.1.2 Opinions about change forces

The two case companies had similar opinions on *external determinist forces*, i.e. effective or potential external drivers for an environmental change of their organizations. The most important stakeholders that exert pressure on companies were regulative bodies and authorities, followed by; society, customers and consumers, in slightly different orders. The list of influential environmental stakeholders of the Finnish company was longer than that of the Italian company because of the greater number of interviewees: many Finnish managers listed after key environmental drivers other stakeholders of minor importance. Neither of the companies gave any weight to local communities and environmental pressure groups.

The opinion on the importance of farmers varied because the respondents approached the question from different viewpoints. The Finnish company emphasized the indirect effect of agricultural environmental regulations on the company. Environmental issues were connected to the quality of meat, being factors that affect raw material prices. The Italian company highlighted the interest of farmers in environmental initiatives, it claimed that their responsiveness was low, and that they were not receptive to any management systems.

The findings suggest that regulatory compliance is the cornerstone of corporate environmental approaches. The respondents sustained that meat processing companies had to comply with severe regulations, made effective by mandatory license application procedures. The Finnish company treated the question of regulatory compliance more broadly; according to the Finnish managers, issues that draw the interest of regulative bodies (especially the European Union regulator) must be considered because they can affect corporate image. Public authorities were also regarded as advisers who give valuable assistance in the improvement of environmental performance.

The Italian company, in the order of stakeholder importance, placed society before placing customers. It did not perceive effective environmental pressure from either stakeholder group, in other words, they represented potential drivers. The Finnish company, instead, perceived effective environmental demand from customers, social demand was equated to the regulative framework. Both companies sustained that social expectations did not, at the moment, stimulate environmental improvements, this means that the level of responsiveness meets social expectations. The Finnish company pointed out that the environmental awareness of society had sensibly grown during the past ten years. Both companies identified critical environmental issues (the scarcity of water) or events (floods) that might increase social concern.

The customer demand was the main driver for the implementation of a certified environmental management system. The Finnish company claimed that big retail trade expected an environmental certificate, the company had anticipated this request by implementing, at an early stage when the demand of customers had been only predictable, a standardized environmental management system. Retail trade companies, in turn, had implemented standardized environmental systems in order to meet perceived social expectations. Customers demanded environmental certification, but they did not evaluate the merits of the environmental programs of their suppliers. The Italian company believed that modern retail trade would, in the near future, demand environmental certificates from its suppliers. The interviewees argued that the company wanted to be prepared to meet these requirements. However, since the demand was not effective, the company had not taken action. It had implemented a certified quality management system in response to the demand of customers,

and believed that a certified environmental management system would follow the same scheme and generate similar effects. According to the responses, environmental certification was a way to prove to others that something concrete had been done, both case companies sustained that certification was a way to manage environmental issues in business to business relationships.

Neither companies neglected the potential role of consumers as environmental drivers. It was obvious that the companies made considerable efforts to satisfy their needs, believing that it was a precondition for survival: food companies could thrive only if they offered products that consumers liked. Both companies perceived that consumers did not, at the moment, question the environmental quality of products. According to the Finnish company, convenience was a decisive buying criterion. The managers of the Finnish company had slightly different opinions on the attitude of consumers on packages: some respondents sustained that consumers disapproved excessive packaging, while others claimed that they did not look for eco-efficient packages.

According to the Finnish company, consumers appreciate domestic food because they rely on the acceptability of domestic production. They pay attention to taste, healthiness and functionality. Finnishness, instead, does not have value abroad. Some managers of the Finnish company believed that the peak of consumers' environmental interest had passed, while others believed that the interest would still grow. The company should be interested in environmental issues because they might hamper the consumption of its products, but the examination of consumer environmental approach was unnecessary because it was not evolving. The Italian company sustained that it wanted to anticipate consumer demand. It believed that consumers would demand more guarantee on the origins of products; it also believed that consumers bought foods from shops regarded as being reliable.

Both companies regarded competitors as environmental stakeholders, but on different bases. The Finnish company was interested in the potentialities of collaborative relationship with competitors for joint economic and environmental benefits. The Italian company sustained that it was important to follow the moves of competitors to learn the development of environmental responsiveness. It did not want to stay behind in the sector.

The Finnish company mentioned owners among environmental stakeholders because their importance is always unquestionable. It has a wider owner base than the Italian company, and it is a listed company. The respondents believed that environmental management did not have a positive effect on share value. However, they also believed that environmental scandals would affect share value negatively. The shareholders of the Italian company are the members of the Raspini family.

The Finnish company also listed industry associations and the package industry among environmental stakeholders. Industry associations were defined as being an occasion for information exchange and for development forums.

Table 6.2: Comparison of findings concerning the opinions about change forces

<i>Opinions about change forces</i>		
<i>Finnish company</i>		<i>Italian company</i>
	<i>External stakeholders:</i>	
	Regulatory compliance (EU regulations), mandatory license application.	
	Social interest low but it would influence the environmental approach.	
Customers demand environmental certification.		Customers will soon demand environmental certification.
	Consumer needs satisfaction.	
	Consumers do not question the environmental quality of products.	
Consumers demand domestic foods.		Consumers demand traceability.
Collaborative relationships to competitors to improve eco-efficiency.		Intrasectorial benchmarking.
	No weight to local communities or environmental pressure groups.	
Regulatory compliance of farms has an indirect effect.		Environmental responsiveness of farms low.
	<i>Managerial voluntarism:</i>	
	Corporate approach reflects managerial attitudes, interest and willingness.	
	Environmental responsiveness must support internally efficient and externally adaptive organizational development.	
	Environmental system as an extension of quality system.	
	Voluntary choices bereft of uncertainty.	
Initiatives rewarded.		Initiatives not rewarded.
Size limits environmental responsiveness.		Size is an opportunity to environmental responsiveness.

Both companies sustained that their environmental approach was not merely an adaptation to external requirements and expectations, but, to some extent, a product of *voluntary choice*. The Finnish company sustained that the environmental approach reflected managerial attitudes, and more precisely, the

managerial view of organizational development work. The Italian company claimed that environmental management implied managerial interest. In both cases, the managerial attitude was positive, the environmental approach supported internally efficient and externally fitting organizational development. Voluntary environmental responsiveness implies positive managerial attitude and willingness. Both companies have extended their quality thinking to environmental issues, but these voluntary choices have never been a risk for profitability. The Finnish company emphasized the role of top management in the first stages of systematic management; environmental concern had become explicit in an extensive process of corporate reorganization and brand redefinition. The organizational members were encouraged to take economically efficient initiatives by a reward system. The smaller Italian company did not have an equivalent incentive system. The Finnish company perceived that big size limited environmental responsiveness because the company had to aim for the whole market and not just market niches. The Italian company sustained that its size was an opportunity because growth was not an essential objective.

Table 6.2 (on the previous page) summarizes the comparison of findings concerning change forces.

6.1.3 Perceived motives

Ethical motives were not conceived as being significant drivers for corporate environmental management. The managers of both case companies considered environmental concern as being a cultural question, they agreed on the prevalence of pragmatic managerial values. They listed as sources of personal environmental values e.g. rural culture, family, common sense, public opinion and social climate. According to the Italian company, the managerial logic is to use resources diligently. Most respondents described themselves as being pragmatically concerned of environmental degradation, and highlighted small daily actions (like the sorting of waste) that reflect their attitudes.

The Finnish company has formulated a list of formal organizational values, while a similar list was lacking in the smaller Italian company, nonetheless, it has established a set of formal objectives that reflect the principles of its activities. The formal values of the Finnish company were customer focus, profitability, cost efficiency, continual improvement and professionalism. The Italian company stated that its objectives were the maintenance of positive economic results, and the raise of sales volume. The means to achieve these was cost control, entrance to new markets, and attention to customer satisfaction. The representations have slightly different forms, but it can be said that the goals and the way to achieve them follow similar schemes in both

companies. This is normal because they reflect conventionally acknowledged qualities of viable business companies.

Both companies emphasized the importance of external values to corporate environmental approaches. The Finnish company sustained that the most remarkable social value change had already taken place. Both companies sustained that, at the moment, there was no effective social pressure to take further environmental measures.

There was no trace of formal organizational environmental values, though several respondents sustained that environmental activities were, at least to some extent, value-based. Environmental values remain formally hidden: the way companies pursue business objectives is connected to a sense of individual and collective social responsibility. The Finnish company argued that the environmental dimension was always connected to conventional business objectives, though it excluded explicitly purely green values, the same is true for the Italian company. In both cases environmental concern was seen as being a meticulous regulatory compliance, and the disapproval of wasteful resource use. Both companies emphasized the presence of an internal sense of responsibility, this was believed to represent the key organizational strength. Externally-oriented environmental ethics implied that the qualitative expectations of consumers were met, and farm animals treated in a socially acceptable way.

Profit-oriented motives justified voluntary environmental actions (effective or intended). The companies associated environmental process improvements with an improved resource use. Cost efficiency was a crucial aspect of activities, it was an important criterion for all organizational development, not only for the environmental performance. The nature of competition demanded cost efficiency, as the Finnish company emphasized. According to the Italian company, it is important to maintain a high level of product safety, economically convenient and technically adequate solutions. The Finnish company pointed out that cost efficiency cannot be followed by lower product quality. The Finnish respondents treated the question of eco-efficiency more extensively, they sustained that many environmental issues drew attention because they were also cost efficiency questions: environmental issues were considered in virtue of their cost effect. They claimed that when activities were carried out in an economically efficient way, they were also environmentally friendly. The Italian company did not say it explicitly, but a similar attitude can be deduced from responses. The Finnish company also mentioned a drawback of eco-efficiency-based approach: it cannot generate innovative and creative solutions.

The case companies agreed on the positive effect of an environmental imprint on corporate and brand image. They perceived that environmental issues were not central to image, but they contributed to the formation of a positive

image. The Italian company did not, at the moment, have environmental certification, but it based its opinion on experiences in quality management, sustaining that environmental certification could add value to the company. It sustained that environmental certification proved that there was a serious organizational structure. The Finnish company emphasized the importance of environmental issues that draw the interest of regulative bodies, as to avoid a negative impact on image. It sustained that environmental management had raised the trust of consumers and farmers.

Table 6.3: Comparison of findings concerning motives

<i>Finnish company</i>	<i>Perceived motives</i>	<i>Italian company</i>
	<i>Ethical motives:</i>	
	Environmental concern is a cultural question.	
	Pragmatic individual and organizational concern.	
	Economic values dominate.	
	No effective social pressure to improve environmental performance.	
	Environmental values are latent in the organization but connected to an internal sense of social responsibility and to the quality of work.	
	Environmental concern is equal to regulatory compliance and diligent resource use.	
	<i>Profit-oriented motives:</i>	
	Cost efficiency guides organizational development but must not compromise product quality and safety.	
	Economic and environmental efficiency correlate positively.	
Eco-efficiency does not enhance creativity.		
	Environmental management affects positively corporate and brand image. Environmental issues are not central to image.	
Image effect of issues that interest regulators.		Environmental certification is a proof of good organization.
	Negligence would spoil reputation.	

The Italian company claimed that corporate and brand images were based on skilful performance and food security. The approach of the Finnish com-

pany was similar, high and constant product quality is a basic element of good image.

Both companies were well aware of the negative effects a bad environmental management has on image. The Italian company sustained that environmental issues were not understated mainly because no one was willing to run the risk of a bad reputation. The Finnish company sustained that brand protection demanded, at all times, a socially acceptable level of environmental management.

Table 6.3 (on the previous page) summarizes the comparison of findings concerning motives.

6.1.4 Effective and potentially feasible actions

The assessment of *environmental commitment* was based on the strategic importance of environmental issues and on managerial and organizational involvement. Both case companies placed in the early 1990's the most remarkable changes in social attitudes towards environmental questions, it was seen as a period of "*green ideas*", and a period during which companies decided their environmental approaches. The Italian company perceived that green ideas had not affected the meat processing sector because its environmental impact was relatively small. The Finnish company perceived that good waste management and process technologies had become normal managerial issues. It sustained that the environmental approaches of big companies would not change significantly, but small companies and agricultural producers would soon be involved in environmentally concerned practices. According to the Italian company, environmental management of meat processing sector had drawn social interest because of recent food security scandals.

There are different opinions on the strategic importance of environmental management in both companies, the internal differences between responses seem to have similar justifications. Those respondents that argued against a strategic importance of environmental management based their position on the sector's relatively small environmental impact. The objective of offering products that meet high standards of sensorial quality, security and healthiness (defined as non-contamination), is strategically important. However, the environment was not seen as a secondary factor in the integrated picture. The Finnish company added that the question drew interest because food production was an emotionally loaded argument. The managers that argued for the strategic importance of environmental management looked at the question from a cultural viewpoint. In the Italian company, the question was regarded as being strategic because it concerned organizational culture (and more pre-

cisely, cultural growth). In the Finnish company, the question was defined strategic because the environment has been integrated in organizational values and objectives: the company made its choice of being a responsible member of society, and bases the value of its products on domestic origins and purity. The Finnish managers explicitly connected environmental values to the quality of products, though both companies emphasized on the quality of raw materials and advanced process technologies. Quoting one representative of the Finnish company, it actually seems that both companies tried to demonstrate that their products had a “*sound basis*”.

Those who did not regard environment as being a strategic question mentioned only one factor that could make it strategic, namely water scarcity. Water is a strategic resource, and its scarcity could threaten the continuity of activities. The Italian company excluded the possibility that environment could become a strategic question for it. It cannot become a differentiating factor in the competition, but it could become a new standard in the sector, or a strategic resource whose availability is at stake.

Both companies defined environmental management as a cultural investment, they denied the possibility of making voluntary environmental investments on a purely environmental basis. The Finnish company pointed out that cost efficiency led to good integrated results, i.e. to eco-efficiency.

Managerial and organizational involvement in environmental management was different for the two case companies for the obvious reason that the Finnish company had implemented a standardized environmental management system for several years, while the Italian company just planned to get a similar system started. In the Finnish company, the role of top management had been crucial at the initial stages of systematic environmental management, these included the definition of objectives and responsibilities. Subsequently, environmental management had become an integrated part of normal activities. The Italian company sustained that environmental issues had been considered in activities for a long time. The responses were likely to refer to compliance-driven actions, which were connected, without specific effort, to normal corporate activities. The approach of the Finnish company was similar: environmental management must support business, while solutions that were perceived as being artificial were definitely out of question.

Both companies regarded environmental issues as being technical questions, and the Finnish company added that environmental goals were interlinked to profit and hygiene goals. In the Finnish company, environmental issues were an integrated part of decision-making, but they were not emphasized. Some respondents defined environmental management as being issue-contingent, mainly because they approached environmental issues as technical

questions, while those who defined it as being comprehensive, referred to the existence of a stable system instead of mere unconnected projects.

The Italian company intended to establish systematic environmental management processes. The Finnish company had passed this stage, and environmental management consisted mainly in the maintenance of processes, though, a development that improved efficiency was seen as a priority. Environmental management must be developed like all organizational activities, but technological progress is a prerequisite for it.

The Finnish company assigned clear environmental responsibilities and tasks. The Top Management Team makes collectively environmental decisions. Technical service develops environmental management (namely indicators). However, several managers claimed that environmental issues influenced their work because of the connection of environmental issues to costs and to the quality of products. The Italian company was in search of synergies, and as a consequence, thought that environmental management had to be integrated in technical service. It was also strengthening its human resources.

Both companies excluded an influence of environmental management on sales management because it was seen as being irrelevant to marketing. Sales function must focus on the satisfaction of customer needs, and, consequently, environmental issues would have relevance if they interested customers.

Both companies sustained that they had, for a long time, considered environmental issues in their activities. None of them had organized specific training, or emphasized environmental aspects in ordinary training. In the Finnish company, production personnel was made aware of sorting procedures concerning their jobs; they were trained to react correctly to failure situations, and invited to save energy and water. The Italian company sustained that environmental considerations were part of good manufacturing norms.

In the Finnish company, eco-efficient initiatives of organizational members were welcomed and stimulated by a reward system, this was lacking in the Italian company, where a top-down logic prevailed, even if in a collaborative control climate. In the Finnish company, environmental initiatives were seen as a sign of bottom line interest. The respondents believed that environmental information was well espoused, though it could be used more efficiently to improve the efficiency of processes.

The environmental behavior of the Finnish company was wider ranged than the Italian company's, for two reasons: the first, it had implemented a standardized system for several years; the second, it was a listed company and, consequently, had to give information to shareholders. The Finnish company used the following environmental management tools: environmental accounting, indicators, management system and audit. The Italian company sustained that its priorities were to produce reliable information on the economic and the

environmental outcome of its activities, and to improve its capacity of taking reasonable decisions. The scarcity of internal resources makes it favorable to a presence of external assistance in organizational development.

The Finnish company used environmental accounting for control and communication. The Italian company believed that environmental accounting might be used to inform the owners. The Finnish company gave environmental information by environmental and annual reports. It communicates the achievement of established quantitative goals, monitored by adequate indicators. The principle was that environmental goals must be quantitative and measurable; development consists on the application of indicators to smaller units of measurement, this to increase eco-efficiency. The Italian company had the same approach: the respondents stated clearly that the aim would be to reduce consumption.

The findings suggest that building a new environmental management system has been difficult because usual practices need to be replaced. Both companies had a previous standardized quality management system, environmental management was seen as an extension of the existing quality system. The Finnish company integrated in an operations policy quality and environmental issues, the Italian company intended to adopt a similar integrated approach. The latter believed that its environmental performance already met the requirements of a standardized approach. It perceived that the implementation of a standardized management system was a question of human resources needed for the accomplishment of formal procedures.

The principles of environmental approach were similar in both companies: regulatory compliance, standardized system, eco-efficient solutions and customer satisfaction. The environmental objectives of both companies were also very similar: they emphasize the need to reduce consumption, and increase the efficiency of resource use. The Finnish company included in its environmental objectives the improvement of productivity, though it is clearly an economic objective. The Italian company had also set as objectives the communication to suppliers and customers, and the involvement of employees, how these objectives will be effectively pursued remains to be seen.

The companies perceived, for similar reasons, that a standardized approach was advantageous. They saw it as a rational way to manage environmental issues, with a clear direction of development. The Finnish company highlighted also its limits: it neither guarantees good environmental management nor enhances creativity and new plans.

According to the ISO 14001 environmental and to the ISO 9001 quality standards, audits are an integrated part of management systems. Auditing visits to suppliers are normal procedures, though raw materials are also con-

trolled by samples (for hygiene and security reasons). Control is necessary, but relationships are based on trust.

Both companies had somehow summarized their environmental approaches in sentences that can be interpreted as statements. The Finnish company stated that it developed the quality of products and activities by continually improving productivity, profitability and environmental performance. The Italian company stated that the development of activities must be sustainable and compatible with the surrounding natural environment. If they are taken separately, the value of such vague statements is obviously near to zero, but within their contexts, they introduce more detailed environmental objectives and measures whose effectiveness can be verified.

The Finnish company publishes an environmental report, available for interested stakeholders. It lists the main environmental actions of the reporting period, and illustrates the achievement of goals with the help of indicators. The report also contains a paragraph on environmental ethics: general considerations on the importance of farm animal welfare and organic foods as an ecological addition to the product range. The company also presents environmental indicators in its annual reports. The Italian company was not enthusiastic about environmental reports. The small owner base reduces the importance of formal reporting.

Neither of the companies was interested in the use of eco-labels. According to the Finnish company, Finnish consumers prefer domestic foods. Both companies emphasized on the increasing importance of the traceability of products. This need is based on regulations that will become more severe, and on consumer expectations. The Finnish company built marketing on four pillars, each of which contains an environmental loading: domestic raw materials, good taste, safety and the nearness of the company. The Italian company wanted to communicate professionalism and was in favor of industry-trade environmental co-marketing. The size explains the need to share resources. Packages contain, in both cases, information that consumers were perceived to be interested in, like the correct disposal of the package after use. Both companies found it difficult to use environmental messages in packages because they could get undesired interpretations.

The Finnish company sustained that it sought eco-efficient technological solutions, while the size of the Italian company limited this capacity. The Finnish company is also subject to the IPPC Directive. The Italian company sustained that eco-efficient technological innovations were not likely to concern food transformation processes, but energy sources.

The Italian company aims at making small technical improvements and replacing inefficient practices. The optimization of resources and material flows seemed to be the core of operative environmental management also in the

Finnish company. Objectives to reduce consumption and to improve waste management were driven by regulatory compliance and cost efficiency. The Finnish company has more extensive production activities and an internal slaughtering phase. Its eco-efficient solutions also covered composting and heat recovery. Both companies sustained that the increase of automation was desirable because it improved hygiene and reduced the use of water for washing.

The collaborative relationships of the Finnish company must have economic justifications. It collaborates with competitors and trade to improve the eco-efficiency of waste management and distribution. Distribution collaboration involves the whole meat processing sector and trade, and it improves the eco-efficiency of packages (circulating plastic cases) and transportation (joint transportation). Distribution collaboration is formal and durable. Moreover, the company may buy external environmental consulting services, and participate in environmental development projects as a member of industry associations. The Italian company was more reserved towards collaborative relationships because it claimed that the local way of thinking was hostile to collaboration. It might be interested in collaboration with research centers, service companies, industry associations and external consultants. For the Finnish company, collaboration is a way to share resources, gain mutual advantage, and enhance the acceptability of activities. The Italian company perceived collaboration as a means to acquire resources.

Environmental regulations, internal standards and indicators for their measurement affect the relationship of the Finnish company to farmers. Both companies took samples and made auditing visits because they believed that traceability of products was becoming increasingly important to regulators and consumers. Both companies used codes of conduct: the Finnish company had a quality meat chain and the Italian company a controlled supply chain. The Italian company sustained, however, that its size did not allow it to impose codes of conduct to most suppliers. It sustained that the certification of each link of the supply chain could simplify relationships. According to the Finnish company, excessive weight on environmental issues could erode the dynamic, motivation and economic preconditions of farmers.

Table 6.4 (on the next page) summarizes the comparison of findings concerning actions.

Table 6.4: Comparison of findings concerning effective and potentially feasible actions

<i>Effective and potentially feasible actions</i>	
<i>Finnish company</i>	<i>Italian company</i>
<i>Environmental commitment:</i>	
Low environmental impact speaks against strategic importance.	
Organizational culture development speaks for strategic importance.	
Water scarcity would increase strategic importance.	
	The question is strategic to the whole sector.
No purely environmental investment.	
ISO 14001 since 1996.	Intention to implement ISO 14001.
Environmental management connected to normal activities. Technical solutions.	
<i>Environmental behavior:</i>	
Environmental management is equal to a measurable improvement of efficiency.	
Sorting of waste is an important practice.	
Wideranging environmental actions.	Preliminary phases of systematic management.
Reduce consumption and improve the efficiency of resource use.	
Environmental management system is a rational choice.	
Supplier control through auditing visits, documents and samples; focus on hygiene and security.	
Environmental report based on quantitative indicators.	Skepticism of the value of reporting.
Scarse interest in eco-labels.	
Communication based on domestic origins, taste and safety.	Communication based on professionalism.
	Industry/trade environmental co-marketing .
Environmental messages on packages might be misunderstood.	
Eco-efficient technological solutions.	Eco-efficiency of energy sources.
Collaboration for economic benefit.	Local mentality against collaboration.
Sector-wide solutions for resource sharing.	Collaboration possible to acquire new resources.

6.2 Perceptions of the representatives of supply chain

6.2.1 Retail trade

A Finnish and an Italian big retail trade center represent, in this research, the options of key customers. The Finnish retail trade company gave an interview while the data relative to the Italian cooperative was collected from publicly available documents, and is therefore less focused on this research theme.

The environmental approaches of both retail trade centers were based on compliance, this signifies that public institutions were the *key agents of environmental change in society*. The Finnish company emphasized the importance of an efficient regulatory framework, and sustained that the opinion of the interested companies had to be taken into account. Both retail trade centers regarded themselves as being mouthpieces of environmental issues, and supported sector-wide development. In the Italian cooperative, the approach was related to its institutional objectives to defend and inform consumers.

The key *change force* of retail trade centers was the regulatory framework. They also give attention to issues that affect the choices of consumers. The Finnish retail trade company sustained that consumers did not reward the environmental quality of products, and perceived that the question was cultural. It sustained that good environmental management demanded managerial interest. In fact, we observe that for both retail trade centers environmental actions exceed compliance because they are seen as being part of business development.

The Finnish retail trade company states that its social responsibility is based on the concept of triple bottom line. The *Motives* for environmental management were social acceptability and cost savings. Social or environmental responsibility must not reduce economic performance. The Italian cooperative was founded to pursue both economic and social objectives.

The environmental *actions* of both retail trade centers were based on programs (the Finnish company has an environmental certificate). Environmental management is target-oriented: both retail trade centers paid attention to the direct and the indirect effects of their activities, and were constantly involved in campaigns to develop business in an eco-efficient direction. The Finnish company published a report on corporate responsibility, and sustained that it was a way of promoting uniform practices. It perceives that environmental issues must first be managed in an exemplary manner, and the same may be demanded from collaborators. It appreciates suppliers that operate in conformity with the ISO 14001 standard, and sets environmental-logistical standards to packages. The Italian cooperative appreciates suppliers that have a good repu-

tation and are socially aware. It sets environmental standards specially to its private label products. Both companies collaborate with industry to reduce the environmental impact of packages.

Table 6.5: Comparison of findings concerning retail trade centers

<i>Environmental management</i>		
<i>Finnish retail trade center</i>		<i>Italian retail trade center</i>
<i>Perceptions of key change agents:</i>		
	Public institutions direct the development.	
The company is a promoter of uniform practices in the chain.		The company promotes consumer rights.
<i>Opinions about change forces:</i>		
	Regulations.	
	Potentially consumers.	
	Managerial interest in business development.	
<i>Perceived motives:</i>		
Social acceptability and cost savings.		Economic and social statutory objectives.
Social responsibility must not reduce economic performance.		
<i>Effective and potentially feasible actions:</i>		
ISO 14001-based environmental program.		
	Direct and indirect impact.	
	Development campaigns.	
Environmental report.		Package standards and collaboration with industry.
Environmental/logistical package standards.		
Suppliers are asked to meet ISO 14001 standard.		
		Suppliers with a good reputation and preferably with social objectives.
	Package collaboration.	
		Environmental quality standards particularly to private label products.

The comparison of the findings concerning the retail trade centers is summarized in the table 6.5.

6.2.2 Meat supplier

A Finnish farmer and an Italian slaughterhouse (with livestock breeding) represent the opinions of agricultural producers in this research. Since the Italian company had externalized slaughtering, it had contacts with slaughterhouses; the Finnish company had contacts with farms (or farm cooperatives).

Both suppliers highlighted the role of public institutions as *key agents of environmental change in society*. The Finnish farmer sustained that compliance set minimum requirements, but the approach also depended on the interest and willingness of entrepreneur. He sustained that self-regulation was a key driver for improved environmental performance. The Italian company looked at the question from a broader point of view, it sustained that public institutions held a key role because they provided correct information, adequate structures, incentives and control, it also encouraged environmentally benign practices among households. In conclusion we may observe that the role of companies is to adopt eco-efficient technologies.

Both suppliers sustained that a key **change force** was the attitude of entrepreneurs. They emphasized the importance of positive attitude, and an internal willingness to do a good job. The Finnish farmer did not have internal transformation processes or own products, it perceived the influence of the meat processing industry, and also the need to manage the farm in an acceptable manner. The Italian company produced finished products and, thus, had contacts to trade, it perceived the influence of retail trade customers in addition to that of regulations.

Motives for environmental improvements were, in both cases, related to personal satisfaction and conscience, these were interlinked to the potentiality of developing activities in a direction that guaranteed long-term thriving. Both suppliers supported sector-wide development and sustained that eco-efficiency guided development. The Finnish farmer said it explicitly, and the Italian supplier was following the reactions of other companies.

Both suppliers had taken *actions* to develop their activities in an environmentally sounder direction. In the Finnish farm, the actions had been directed to eliminate odor emissions and improve the disposal of manure. These activities aimed to decrease the inconveniences that livestock breeding caused to the surrounding environment and local community. The Italian slaughterhouse had also taken measures to improve waste management, and was interested in finding environmentally sound solutions that fitted with its technical needs and economic possibilities. Regulatory compliance and non-cruelty to farm animals were the principles of livestock breeding. Neither of the suppliers was initiating environmental certification procedures.

The comparison of the findings concerning suppliers is summarized in the table 6.6.

Table 6.6: Comparison of findings concerning suppliers

<i>Environmental management</i>	
<i>Finnish supplier</i>	<i>Italian supplier</i>
<i>Perceptions of key change agents:</i>	
Regulatory compliance is a minimum standard.	Public institutions have a key role in society.
Much depends on internal interest and willingness.	
<i>Opinions about change forces</i>	
Market acceptability.	
Managerial interest.	
Willingness to do good work.	
<i>Perceived motives:</i>	
Personal satisfaction and sense of responsibility.	
Thriving in the long term.	
Eco-efficiency guides production sectors in the right direction.	
<i>Effective and potentially feasible actions:</i>	
Waste management for social acceptability.	Eco-efficient solutions.
	Non-cruelty to farm animals.

7 ANALYSIS AND RESULTS

7.1 Key agents of environmental change in society

According to the results of this research, the role of national and European regulative bodies is crucial to the development of corporate environmental management. The case companies had a favorable attitude towards a regulatory intervention for the mitigation of environmental harms: **Public vision** of environmental initiative prevailed over corporate vision, though not in its extreme version.

The findings suggest that companies recognize and accept the necessity of improving environmental performance, but since they often have to internalize environmental costs, there should be regulations that impose equal legal obligations to all companies. Behavior inhibiting is, thus, seen as being a suitable method for the achievement of positive environmental results (Ulhoi, Madsen & Hildebrandt, 1996).

At least two plausible reasons for seeing environmental improvements as cost factors emerged. The first reason was that past public intervention was seen as being strongly based on environmental taxes (e.g. waste management taxes), fees and charges⁵⁷. The second reason was to be found in the predisposition of meat processing companies (and more in general, food companies) to perceive the competition of the sector as being strongly based on cost efficiency. E.g. Silén (2001) claims that the food sector (referring to the Finnish situation) is characterized by overproduction policies, which inevitably lead to the maximization of cost efficiency.

Environmental costs concern the internal processes (like wastewater management) or the external processes (like the provision of raw materials). The Finnish company used as example the BSE epidemic, affirming that it was caused by environmentally unethical means to lower production costs. The function of public control was emphasized because only efficient control can make regulations effective, guaranteeing that companies do not lower costs by favoring production methods that might poison farm animals, and, conse-

⁵⁷ See Environmentally related taxes database (European Environment Agency – OECD), <http://www1.oecd.org/scripts/env/ecoInst/index.htm>.

quently, people who eat contaminated food⁵⁸. The Italian company mentioned especially the importance of controlling the feed of farm animals. In brief, regulations must be made effective by an efficient control system as to avoid unfair advantage acquired from non-compliance.

The European Union has a leading role in the development of environmental regulations⁵⁹, the role of international regulators can be explained by the globalization of the market, and the global nature of many environmental problems. Uniform rules will prevent companies from moving from one country to another in search of looser environmental regulations (*“environmental dumping”*)⁶⁰. The respondents did not associate regulative intervention with a need to stimulate a radical environmental change (cf. Rossi, Szejnwald & Baas, 2000), but rather, with the gradual improvement of industrial processes (direct effect), and with the limitation of intensive methods in agricultural production (indirect effect)⁶¹. The food industry was seen as being already highly regulated⁶².

The Italian company sustained that in Italy, the regulative culture had only recently been developed, and was driven by the European Union regulations. The positive development of regulative culture encouraged a number of companies to operate within legality from the very beginning of their activities (attaining necessary licenses). The Finnish company perceived public authorities also as being development partners; this may be read as being a sign of an established positive climate between the company and authorities. The importance of the European Union as environmental regulator emerged also in responses of the Finnish managers.

Environment is a cost factor. Regulative intervention, supported by an efficient and qualified control of authorities, guarantees to all companies equal duties. Deregulation would be against public interest. The European Union regulations drive environmental responsiveness.

⁵⁸ The Council Regulation 2377/90/ECC establishes the maximum limits for veterinary medicinal products authorized in foodstuffs of animal origin, and prohibits the administration of specific hazardous substances to animals.

⁵⁹ Broad direction of European environmental policy is laid out in Environmental Action Programs.

⁶⁰ European Community adopted its first Environment Action Program in 1973 (for the period 1973-1976).

⁶¹ Common Agriculture Policy (CAP) reforms have tended to separate support mechanisms from production quantities, and discourage farmers from pursuing increasingly high productivity levels.

⁶² Meat product manufacturing is regulated e.g. by the following norms: Council Directive 86/363/EEC on the fixing of maximum levels for pesticide residues in and on foodstuffs of animal origin (namely meat and milk and derived products); Council Regulation 2377/90/EEC establishes the maximum limits for veterinary medicinal products; Council Regulation 315/93/EEC establishes procedures for contaminants in food; Council Regulation 1760/2000/EC establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products.

The representatives of the Finnish company believed that the imperative and control functions of public institutions and authorities were important: this is coherent with the recently surveyed opinion of Finnish consumers as being drivers of good quality agricultural products. According to the survey⁶³, Finnish citizens rely mostly on public institutions to guarantee the health of farm animals, to enact regulations, and to organize the control of food production, fostering in this way the quality and the safety of Finnish foods. Regulative bodies and public authorities are seen as key agents because they protect consumers against fraudulent behavior. This data supports the assumption that public vision is widespread, it supports the conclusion of this research that neither market mechanisms nor corporate responsibility would guarantee an acceptable mitigation of environmental harms (cf. Midttun 2002). Environmental responsiveness is strongly, though not exclusively, driven by regulations, and to some extent, by market and eco-efficiency-based self-regulation.

The representatives of both case companies also shared a critique of public vision. Regulative measures were seen as necessary and efficient, if supported by adequate control, but not always feasible, unequivocal, or based on sound criteria. The findings suggest that regulations could too much complicate the actions of companies, and restrict their possibilities to pursue profit (cf. Welford, 2002; Caselli, 1998). Mutually contradictory norms and scarcely coordinated controls – the last mentioned by the Italian company - were given as examples of possible complications. The Finnish company perceived that the extreme positions, referring to the BSE-epidemic-driven regulations, taken for political reasons, were an example of the excessive limits to profit. In this case, public institutions used the regulative tool rigidly, basing decisions on political interest, hence, giving a strong answer following electors-consumers rather than scientific evidence. Matten (2002) has a similar opinion, he argues that in the BSE epidemic case, the regulator wanted to obtain public consent from the electorate without gathering further costly information about risk material and had, therefore, used the behavior inhibiting tool. The Finnish company sustained that due to the extreme position adopted by the regulator, it had to deal with costly physical problems in relation to the disposal of waste classified as risk material. The opinion of different social actors on costs and benefits of alternative solutions seems to diverge: regulative bodies have reacted to the necessity of defending consumers, though they may also use regulative tools to strengthen their political position. Corporate opinion is that political interest is in contrasts with market interest.

⁶³ A Finnish market research company, Taloustutkimus, March 2002; a survey conducted by the order of Ministry of Agriculture and Forestry. Selected results available on the web site of the Finnish Food and Drink Industries Association: <http://www.etl.fi>.

Companies demand a well defined legal context and regulations based on sound criteria (scientific information).

The findings suggest that a well defined legal context cannot be guaranteed by the symbolic content of environmental policies alone, but symbolic policies were not, on the other hand, intended to substitute mandatory regulations, but rather, supplement or anticipate them in certain questions. Symbolic politics may be seen as a way to stimulate companies or collaborate with them (cf. Matten 2002). In fact, the results show that the interest of regulative bodies in certain issues (like the transport of animals) stimulates companies to improve because they either want to anticipate regulations, or enhance their image of being a responsible citizen.

The case companies proposed different solutions to the inconveniences of regulation. The different approaches can be, at least partially, explained by the different size of the companies, and by their different cultural contexts. The Finnish company was satisfied with its relationship to public authorities, while the Italian company perceived that it needed to improve. Consequently, the Italian company emphasized the importance of improving the organizational and technical level of controls. Substantially, both companies demanded equal and reliable legal framework, i.e. good governance⁶⁴. The idea of a state that guarantees good governance and, thus, supports free competition, is in harmony with the classical ideas of efficient market⁶⁵. The Finnish company was favorable to a closer relationship between public institutions and companies to avoid the regulative drawbacks. Companies would feel involved, but also, the consultation of interested companies would inform the regulators on the effects of environmental measures to business activities. The respondents did not find it ethically dubious to collaborate with regulative bodies, this kind of critique comes from other social actors; however, a collaborative rather than confrontationist approach has recently spread among public institutions, private sector and civil society. Civil society organizations, even environmental groups, which used to have a strong anti-business attitude and refuse any compromise solution, have engaged in constructive conflict solutions which stimulate positive changes⁶⁶.

In brief, a collaborative relationship was proposed to assure feasible regulations (as the example of contradictory norms shows) and to conciliate the pursuit of public good with private interest (as highlighted by the BSE example). Regulative bodies could benefit from a collaborative relationship by

⁶⁴ See a White Paper on European Governance, COM 2001 428 final.

⁶⁵ See Adam Smith (1963).

⁶⁶ See Drey & Vilert (1997) on destructive and constructive conflict.

obtaining a wider knowledge of the negative and the positive effects of their decisions.

Collaborative regulation improves the knowledge of productive realities and increases the feasibility of the regulative framework.

Consultation and closer collaboration were not mere wishes but have been now effective for a long time in the field of environmental regulation. One important example of extensive consultation is provided by the definition of a directive to minimize pollution throughout the European Union; the IPPC Directive, enacted in 1996⁶⁷. The IPPC Directive imposes an authorization from the authorities of the European Union for industrial installations of certain relevance. The authorization is based on the BATs, defined through an exchange of information between experts, industry and environmental organizations (information is used for the formulation of BREFs).

A positive interpretation of the consultation shows the willingness of companies to participate in the solution of problems. A negative interpretation questions the environmental concern of companies, suggesting that they only want to convince the regulator to minimize the restrictive effect of regulative measures, with a consequent loss of environmental benefits. The availability of reliable scientific information would give less importance to this consultation because regulative bodies could base their decisions on verifiable, objective criteria. Regulative bodies could also use other consultations, in fact, the above-mentioned consultation for best available techniques also involves industrial experts and environmental organizations.

Collaboration between companies and regulative bodies may not remain at a consultative level, but may lead to negotiated environmental agreements (NEAs). They may be defined as (Ten Brink 2002, 18):

"...commitments undertaken by firms and sectors that are the result of negotiation with public authorities and/or are explicitly recognized by the authorities."

They may be independent from regulations, or alternatively anticipate or support them. The formulation of a negotiated environmental agreement may also involve other stakeholders, in the same manner as the development of the contents of the IPPC Directive.

According to common logic, regulations set objectives and companies seek economically efficient means to achieve them. The public vision that emerged did not limit itself to the command and control function of public institutions, but they were expected to act as drivers for and supporters of corporate deci-

⁶⁷ Council Directive 96/61/EC. Source: <http://europa.eu.int/comm/environment/ippc/>. The IPPC Directive grants the installations an eleven years long transition period to BATs in order to cushion their effects on employment.

sion making. The Italian company highlighted a typical need of medium size companies, the need for economic incentives to development programs⁶⁸. According to the results, managers perceive environmental problems as being complex and interlinked to economic issues (like the profitability of companies) and social issues (like occupation), all perceived as being problems that require technology-based problem solving. Consequently, the Finnish company not only demanded regulations based on reliable scientific information, but saw that the availability of such information was important because it supported corporate decision-making. The findings suggest that companies assess the reliability of the source before going into detail. The findings also suggest that the task of guaranteeing scientific information rests with public institutions. The question concerns, to a large extent, the allocation of public funds to research programs carried out by private or public research centers, and the valorization and diffusion of results. The institutions of the European Union have recognized the necessity of supporting corporate environmental change. The Commission is developing an action plan for environmental technology (ETAP) with the aim of identifying promising technologies, technical, regulatory, economic and social barriers holding them back, and measures to overcome these barriers. The development of the action plan implies the consultation of industrial stakeholders, the research community, NGOs and governments (COM 2003 131 final).

Public institutions were demanded to provide economic resources particularly to small and medium size companies, and knowledge resources to support corporate decision-making. Environmental issues were seen as complex and interlinked with social and economic issues, and the approach of companies is information-based. Public funds can be allocated to produce and valorize reliable scientific information and advanced solutions.

In brief, good governance, financial support to small and medium size companies, and knowledge-based support to corporate environmental decision-making reflect the kind of responsibility expected from public institutions.

What emerges from this research is the fact that the mitigation of environmental problems concerns both citizens, in their role of consumers, as companies, in their role of producers. The responsibilities are quite clear: companies focus on cleaning their processes, while the involvement of consumers is mediated by public intervention. Public institutions were expected to involve households in environmentally acceptable behavior patterns, through

⁶⁸ See the European Union Financial Instrument for the Environment (LIFE), <http://europa.eu.int/comm/environment/life/home.htm>

education of environmentally concerned consumption patterns, and the provision of adequate structures for practices like the sorting of household waste.

The findings support the coexistence of public and corporate intervention, though not in equal measure. *Corporate vision* emerged as being complementary to public vision. On their part, companies were willing to collaborate with regulative bodies on issues that concern their activities. Both companies emphasized the importance of regulatory compliance, and the positive contribution of voluntary initiatives, nonetheless, the precondition for self-regulation was business benefit; as Welford (2002) points out, business imperative is to make profit. This approach is, to a large extent, based on good citizenship, respect for the law and social consciousness⁶⁹.

The capacities that Shrivastava (1995) attributes to business companies resulted limited: Shrivastava argues that companies have sufficient financial resources, technological knowledge and institutional capacity to implement ecological solutions. The findings suggest that companies have limited financial resources (allocated to activities that generate a return), limited technological and environmental knowledge. The institutional role does not allow companies to act as educators of consumers. The educative role fits public institutions because it demands the allocation of resources to activities that enhance public good – not corporate profitability – and because the credibility of the educative efforts of companies might be easily questioned.

Corporate vision places in a central position the self-regulation of companies. In this view, self-regulation is driven by process and product improvements and by marketing opportunities. Environmental management is not a competitive challenge, but the need to meet social expectations makes companies pay attention to responsible competition, avoiding actions that could arise indignation on the market (cf. Shrivastava 1995; Welford 2002, Hart 2001).

According to the case companies, process efficiency, the quality of agricultural raw materials, and the quality and amount of packages are the fields in which meat processing companies can contribute to sustainability, basically by compliance-driven actions (responsible competition), but also by voluntary actions (eco-efficiency). The sense of social responsibility and the appreciation of good work make companies respond to regulative demand by actions that exceed, slightly, compliance. Thus, if regulations set a standard to the quality of wastewater, the internal sense of responsibility makes companies slightly exceed that standard. The case companies regarded this kind of response as evidence of managerial interest and social responsibility. It was claimed that

⁶⁹ See for the definition Schaefer's model of ethical decision-making, <http://www.ethicsandbusiness.org>.

measures that exceed compliance can also be driven by the belief that a more severe regulative intervention might be imminent. Companies anticipate changing legal requirements for two plausible reasons: to avoid the repetition of formal authorization procedures, or to protect themselves from technical or technological adaptations that would cause major costs (Welford 2002; Hart 2001).

The main difference between compliance-driven action and a voluntary one is, however, that the former causes costs, while the latter contributes to the achievement of business benefit. Benefit may derive from the improvement of the efficiency of processes, or from the improved quality of products (because appreciated by consumers).

Corporate self-regulation is complementary to compliance. It is first and foremost driven by economic rationality, but it is also supported by managerial willingness to do a good job and by social responsibility.

The need of a higher level of corporate self-regulation did not emerge from the findings. Both companies stated quite clearly that their environmental approach was compliance-based. The Italian company believed that companies, on their own, would not enhance self-regulation. The management of the Finnish company regarded the company as being an environmental pioneer because it implemented solutions that slightly exceed compliance, it showed systematic and long-term commitment to environmental improvements (a certified management system), it had a positive attitude to collaboration with public institutions and other companies, and it was engaged in the promotion of domestic meat production. However, it excluded proactive integration of environmental issues in marketing, and believed that environmental responsibility was likely to be, at its best, very pragmatic and linked to the maintenance of domestic agricultural production.

Technological progress, as source of environmental solutions (cf. Bateson 1976; Iarrea & Vickery 1997), has maintained, for decades, a primary position. The findings suggest that environmental responses are generally technology-based improvements. According to Bateson (1976), the negative effects of technological progress are that it facilitates population growth and increments human environmental arrogance. He also claims that these relate to other two causes of environmental degradation, namely population growth and wrong values.

Technological improvement signals a company's response to regulative requirements, on their part, public institutions focus on the promotion of environmentally more efficient technological solutions (see above). Technological progress, thus, offers solutions that business companies can (or must) implement, however, these were not developed in the companies themselves, but in

public and private research centers, funded by public or private capital. The role of research centers as developers and innovators becomes crucial in this model. Solutions must be economically attractive and practical. The environmental effort of companies remains, thus, relatively scarce because they implement solutions designed by external experts. In other words, they choose economically convenient and technologically adequate solutions, based on latest technological know-how, to improve the use of resources.

In the meat processing sector, the environmental concern of a majority of consumers does not influence process technologies driven, as they were, by regulatory compliance and economic rationality (cf. Iarrea & Vickery 1997). A minority group of consumers demands organic products whose quality is based on farming methods that respect the nature. The findings suggest that companies are certainly not contributing to the transformation of consumption patterns to more environmentally compatible ones. They execute compliance-based measures diligently, exceeding the standards if there is a threat of stains on reputation.

The findings suggest that companies are not in search of firm-specific competitive advantages through environmental issues, therefore, they are not interested in allocating resources to a type of development that does not lead to economically justifiable results. This situation prevails in the meat processing sector, companies acknowledge the need to improve their performance constantly, and the need to operate in an economically efficient way.

The fundamental role of both regulative bodies and public authorities dominates the *vision* respondents had of a wider social *participation* in society's environmental change (Starik & Rands, 1995; Iyer, 1999). According to this vision, public policies direct the development, and the production sectors comply with regulations.

Production sectors adopt homogeneous environmental solutions in response to regulatory demand. Solutions are based on improved technologies.

The participation of business companies to the mitigation of environmental harm was seen as limited for two reasons. Firstly, the technological nature of environmental problems requires expertise. Meat processing companies are specialized in the production of meat products, and not in the design of environmental services or solutions. Moreover, single companies may be able to take a stand on small issues that are near their field of experiences, but environmental issues are complex; their effects are extensive, interlinked to other social and economic questions, like, for example, the survival and viability of national food production. The second reason is the institutional role of business companies: pursue private interest. The imperative to be profitable excludes the promotion of solutions that may be against this interest. Also, other

social actors would not necessarily appreciate the initiatives of companies mainly because they do not believe that companies are concerned with public good. The findings suggest that society should recognize these limits, and set its expectations accordingly. In other words, society should not oppress production chains by unrealistic requirements.

Corporate responses are hampered by the lack of expertise required for the solution of complex environmental problems and by the threat that the credibility of responses would be contested.

It is not reasonable to expect companies to incite consumers to limit consumption, though it is reasonable to expect that they design products whose production and consumption is more compatible with the environment. The findings suggest that such development is slowed down by market disinterest, environmental quality is associated with higher costs, consequently, with a price level that consumers do not accept. Hence, market cannot “pull” improvements: it does not reward the environmental quality of products, but appreciates such aspects as taste, safety, easiness to use and convenience (see also Karjalainen 2000 on the European perceptions of food quality). Companies do not feel they can contrast market even if it is for public good.

The respondents regarded technological progress-based improvements as being important, they sustained that companies were favorable to solutions that concern, at least, the whole sector, if not numerous sectors contemporarily, as an industrial transformation (e.g. Vellinga and Wieczorek 2001). Industrial transformation concerns the whole economic system, with its actors, material flows, services, infrastructures and physical setting. It could produce ecologically efficient solutions, but beginning such a process is difficult because the interrelated effects are difficult to understand, and because it lacks drivers with sufficient interest and power. The European Union has the lead in environmental regulation over national governments (cf. Paton, Smith & Melthus (2002), and is promoting the diffusion of environmental technologies across sectors (cf. the action plan for environmental technology, COM 2003 131 final). It is, thus, acting as an effective change agent in the field of environmental technologies.

The above-described process of industrial transformation is based on technological progress. According to Bateson (1976), technological progress increasingly risks weakening the ethical status of the natural environment because environmental problems are seen as mere technical problems, approached by new technologies, without considering deeper causes of environmental degradation, i.e. values that guide the behavior of all social actors (cf. Shrivastava 1995; Sassoon & Rapisarda Sassoon 1993). The participation of all social actors is promoted by the European Union by initiatives that involve various stakeholders (the involvement of industrial experts and environmental

organizations in the exchange of information on BAT; stakeholder consultation in the development of an ETAP), and increase the publicity of environmental impacts (the setting up of an European Pollutant Emission Register relative to industrial installations that need an authorization on the basis of BAT). The findings suggest that companies passively support multilateral vision: they expect public institutions to involve other social actors – particularly consumers - in environmentally sounder solutions.

The task of involving consumers in environmentally sounder patterns of behavior rests with public socio-political institutions.

It is interesting to observe, however, that the attitude of regulative bodies to the regulation of environmentally hazardous household consumption is rather negative. Regulative efforts focus on point sources (industrial installations) and not on diffused sources (e.g. households) for an obvious reason⁷⁰:

“Besides, it is much easier to change the production patterns of some twenty thousand companies than it is to change the consumption patterns of hundreds of millions of citizens of the European Union.”

An environmentally responsible consumption is based on the assessment of the environmental quality of products. However, from the data arguments against the responsibility of consumers for the environmental quality of products emerged. In one opinion, consumers must be able to trust that all available products are environmentally acceptable. The capacity of consumers to take environmental issues into account in buying decisions also emerged. It would not be fair to demand too much from consumers: they cannot be held responsible for the environmental actions of companies because their information is limited. This sends the basic responsibility for the environmental quality of products back to companies who have to meet social expectations, but it also sends it to regulative bodies and public authorities who have the task of guaranteeing social acceptability of food products. According to the respondents, the elaboration of participated roles might risk creating role confusion.

Consumers do not have the adequate information to act as environmental drivers. They should not be excessively burdened with responsibility because standard setting and control are functions of regulative bodies and public authorities.

Despite a passive, or at best responsive, support to a multilateral vision of environmental change in society, the findings suggest that it is much easier to find barriers to than drivers for the enactment of environmental initiatives in companies and consumers.

⁷⁰ <http://europa.eu.int/comm/environment/ippc>.

A multilateral vision is based on the concept of sharing environmental responsibility, this implies that participating social actors are all concerned by environmental issues, and are responsible for environmental harms. An extensive participation of all social actors in the diffusion of environmentally improved practices and behavior patterns, as proposed e.g. by Jennings and Zandbergen (1995), and Iyer (1999), emphasizes the importance of changing the values of all key social actors. The respondents treated today's environmental questions as being pragmatic and instrumental rather than ecocentrically-oriented. A widespread opinion was that the value approach to the environment had already gone through a considerable change in the 1990's, and led to the current environmental approach. One of the more influential events was undoubtedly the United Nations Conference on Environment and Development, the "*Earth Summit*", in Rio de Janeiro, Brazil. The novelty effect of this type of authoritative, extensive effort to address environmental problems has probably contributed to the change of values perceived by respondents. The change was driven by socio-economic trends (energy prices), disastrous events (especially during the 1980's), the awakening of social interest (driven by media attention to events like the "*Earth Summit*") and new international regulative responses. The findings, thus, argue for the importance of a change of values on the basis of a change in behavior (Jennings & Zandberger 1995; Iyer 1999). The conclusion that we can draw is that ecological sustainability is by principle regarded as being a positive concept; its diffusion would benefit companies, consumers and society. Because the solution of environmental problems is based on technological progress, these responses can be interpreted as being a positive attitude to environmentally beneficial technological progress.

The findings suggest that a further change of environmental values in society is not probable, but environmental concern will maintain its current pragmatic level and form. The findings also define prevailing environmental values in society as being pragmatic, instrumental and slow to change. A shift towards more ecocentrically inclined values was seen as being unlikely. The respondents seemed satisfied with the current level of social concern, and with the technological responses developed to mitigate environmental harm (cf. Shrivastava, 1995; Sassoon & Rapisarda-Sassoon, 1993; Jennings & Zandbergen, 1995). They did not minimize their effect or doubt their stability. The perception that environmental service companies face the real environmental challenge ultimately supports a pragmatic and instrumental approach to the resolution of problems.

The findings support both Iyer's (1999) and Jennings and Zanderberg's (1995) definition of environmental responsibility as being an institutional question. If any further change of values should occur, socio-political institu-

tions would promote it. The role of consumer associations as actors that stimulate public debate on environmental issues emerged. The findings support the role of institutions in change, emphasizing their influence on the values of individuals. According to Jennings and Zandbergen (1995), environmentally sustainable values could induce consumers to consume less but more wisely, and companies to promote sales on the basis of social criteria. The findings suggest that this kind of value change would be very radical because currently consumers value other dimensions of quality, and are attracted by convenience. Companies do not try to change the environmental values of consumers, but respond to them.

The role of non-business institutions as value change agents is fundamental. A further value change is improbable, but a prerequisite for the increase of environmental concern is a continuous social debate.

The model of Iyer (1999) represents a balanced vision of the functioning of society in which “*diluted*” ecocentric values prevail. The model has been built with a simple logic that starts with the identification of a social problem (environmental degradation), key actors involved in the generation and mitigation of harms (business, governments, socio-political non-business institutions and consumers), the injured party (the natural and physical environment), and relationships characterized by adverse environmental effects between key actors. It represents the ideal situation of social consensus on the necessity to change behavior patterns in all fields of social activities, and illustrates synergic social efforts to mitigate environmental degradation. The functioning of the model is based on a collectively shared ethical approach to environment.

The findings support a prevalence of instrumental and pragmatic values that Iyer (1999) defines erroneous. They also support the institutional vision of environmental responsibility that emphasizes the role of political and social institutions as value change agents.

Iyer’s model is used as framework for the representation of the findings on the key agents of environmental change (fig. 7.1 on the next page)⁷¹. The model shows that economic rationality pushes companies to use natural resources parsimoniously. Consumers do not show great environmental concern in their buying decisions, and companies, on their part, merely satisfy modest environmental needs. Socio-political non-business institutions are plausible agents of value change: they could stimulate environmental debate. The contribution of public organizations is accentuated: regulative intervention is fundamental to guarantee an acceptable level of environmental performance.

⁷¹ Iyer (1999) suggests some rules of action to consumers, business companies and regulators. These suggestions will be discussed in section 7.4, dedicated to corporate environmental management actions.

Regulators set standards, but they can also build collaborative and supportive relationship to companies. They are expected to involve consumers in environmental preservation.

In conclusion, it can be said that public vision is suitable for the solution of social problems like environmental degradation. Corporate vision is complementary to public vision. It is based on responsible competition according to prevailing social values, but not on the building of firm-specific competitive advantages. Socio-political institutions could enhance a more active participation of all social actors.

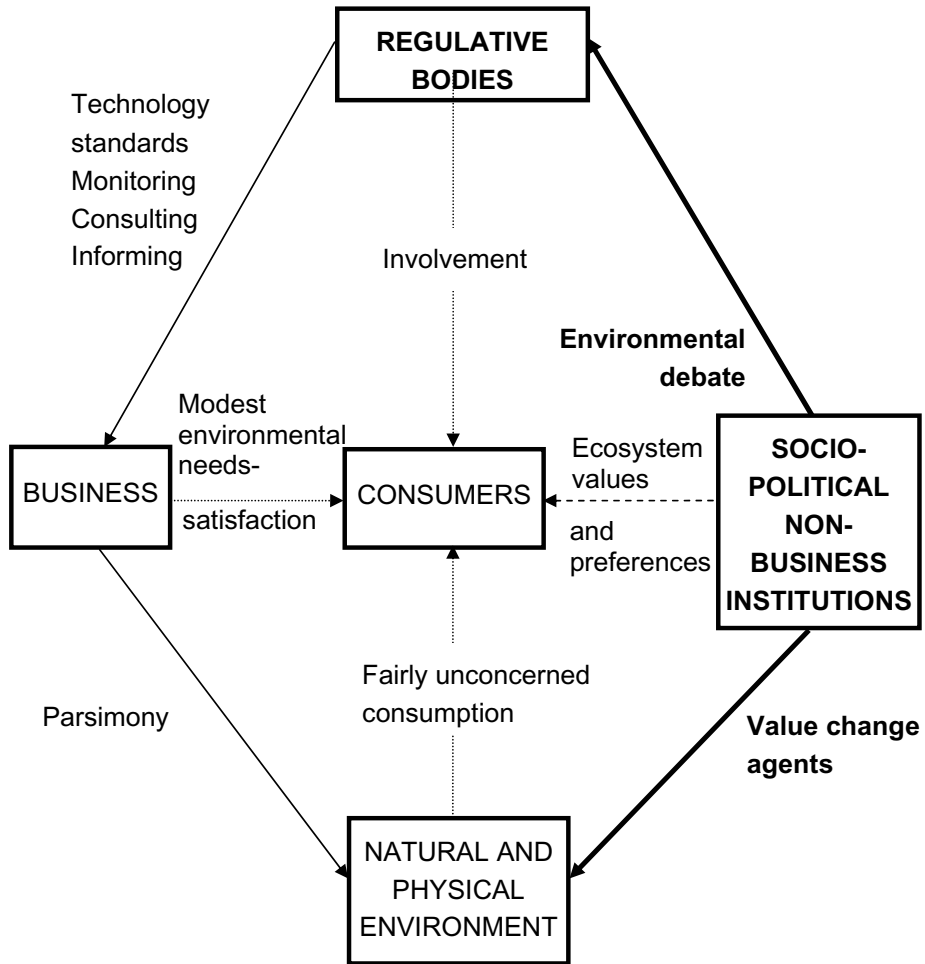


Figure 7.1: Emerged vision of environmental concern in society (modified from Iyer 1999)

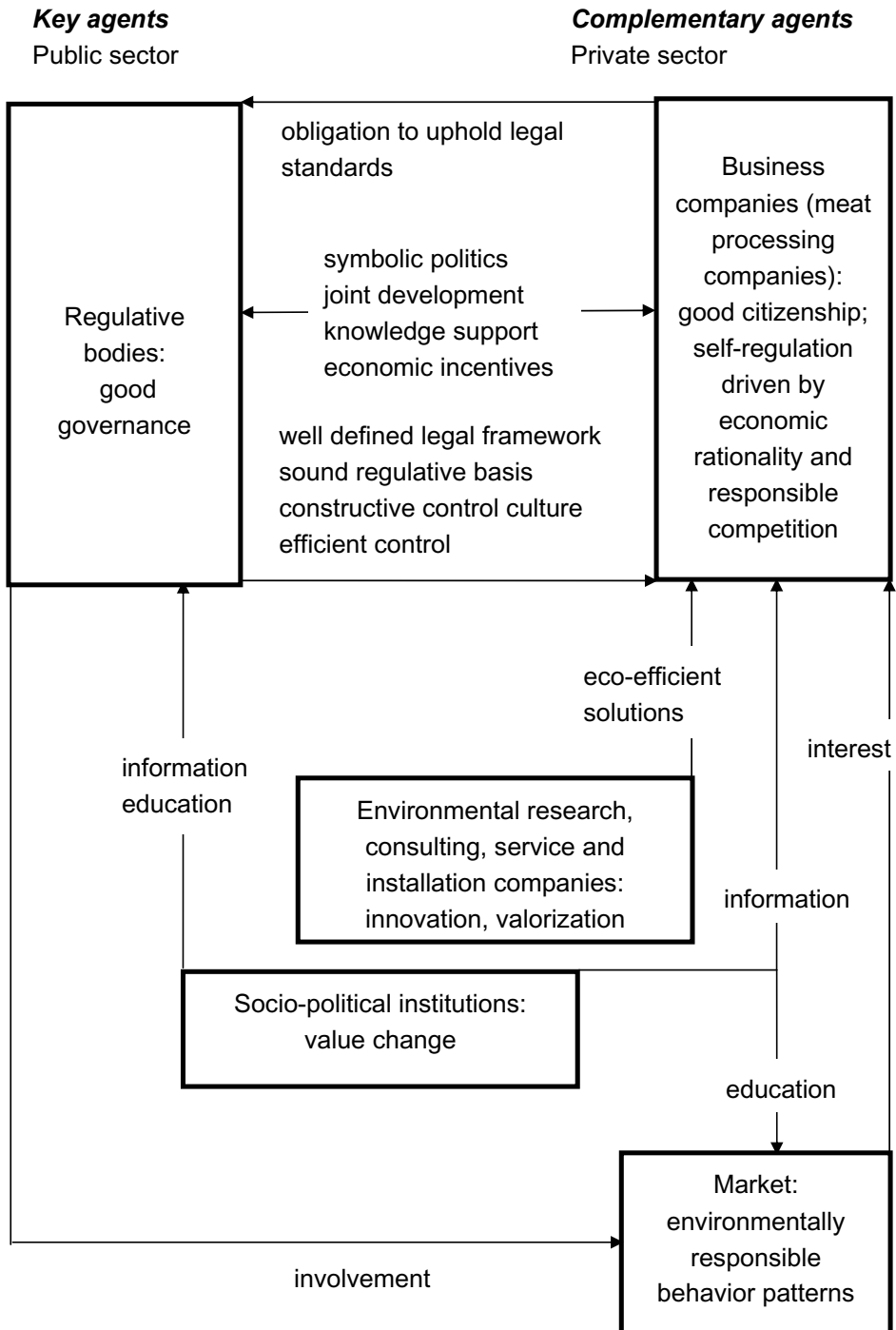


Figure 7.2: Emerged picture of the key agents of environmental change in society

The conclusions drawn from the findings on key agents of environmental change are presented in an outline of the main points (fig. 7.2 on the previous page).

7.2 Change forces

External determinist forces have influenced the approaches of both case companies to environmental issues. They have perceived a similar *pressure* on their environmental approaches coming from *external stakeholder* groups (cf. Madsen & Ulhoi 2001; Stead & Stead 2000). In conformity with the prevailing public vision, the findings bring to evidence the fact that regulative bodies are those who exert a major influence on companies. Regulative bodies have influenced the environmental approaches in the past and continue to influence them at present, and seemingly, will continue to do so in the future. The strongest potential pressure to take voluntary action comes from society, customers and consumers (cf. e.g. Ketola 1999; Stead & Stead 2000). Pressure from these groups has influenced environmental approaches in the past, and a reawakening would have a considerable effect on corporate responsiveness. It can be claimed that a “pull” effect of customers has made companies adopt (the Finnish company) or seriously consider (the Italian company) the adoption of a certified environmental management system. However, the “pull” effect of consumers has not stimulated interesting market-oriented initiatives. Both companies offer a marginal amount of organic foods in response to consumer demand, but their competitive relevance is insignificant.

Regulative pressure based on the logic of command and control is the most influential effective external determinist force. It reflects the social interest in environmental issues. Customers have “pulled” the implementation of a certified environmental management system. The pressure of consumers is substantially potential.

The influence of regulative bodies and public authorities is based on the legal opportunity to claim interest in a firm’s activities, and even direct the development of activities (Madsen & Ulhoi 2001). Regulative bodies have a legal opportunity to “push” the mitigation of environmental harms. E.g. waste management is no longer a private issue for companies, instead, these have to comply with numerous regulations. According to the respondents, companies have, in particular, to take into account the regulations enacted by the European Union because it has assumed, over national governments, a leading role in environmental politics (see section 7.1 for reasons). Finland has become a Member of the European Union in 1995, and the findings suggest that the membership has increased the amount of controls. National and local author-

ities exert control functions relative to common regulations, according to the role differentiation between the institutions of the European Union and its Member States.

The importance of regulative bodies and authorities is based first and foremost on their capacity to legitimize the activities of companies (Ulhoi, Madsen & Hildebrandt 1996). The legitimation effect that compliance with regulations generates is strengthened by the perception that regulative pressure reflects the level of a wider interest in environmental issues in society. The legitimation effect is perceived as being able to reach the downstream relationships of supply chain because it limits the use of hazardous chemical substances in agriculture and livestock breeding, this has repercussions on food industry which has to guarantee the security of final products. The Finnish company argued explicitly that environmental regulation of agricultural production had an important indirect effect on its activities because the relationship to the agricultural production was so close. The environmental impact of agriculture is the subject of remarkable social and institutional interest, and therefore the company cannot overlook it (Miller & Szekely 1995). The Italian company is one step back from agricultural producers, and as a consequence, gave less weight to the effect of regulations concerning agriculture. However, both companies perceived strongly that they were obliged to guarantee that their raw materials met regulatory standards.

The Finnish and the Italian company perceived the relationship with public authorities in a slightly different way. Both companies affirmed that the relationship to authorities functioned well, but the Italian company perceived the need for a climate of more positive control, guaranteed by an adequate organizational and technical level of control. The Finnish company regarded public authorities as being experts who can offer valuable assistance (knowledge) in the development of activities in an environmentally sounder direction. Local authorities e.g. control the transportation of animals and give advice on the development of transportation. The focus of development is on activities that draw particular social and institutional attention. A good example is the previously mentioned ethical treatment of animals during transportation, subject of vivid debate in the institutions of the European Union. The company perceives that institutional interest reflects wider social interest, and believes that public acceptance of its activities (reputation) might suffer if it neglected an issue of current social interest. Regulative bodies, thus, direct the interest of companies also with the help of symbolic politics.

According to the responses, environmental regulations concerning Industrial meat processing are severe, and the interest of regulative bodies in environmental issues high. Regulative bodies can make their demands felt directly through political decision-making. Their coercive power leaves little choice to

companies, these have to meet the established standards (Miller & Szekely 1995). On the one hand, it could be claimed that regulators have knowledge and capacity to address determined environmental issues, and raise public interest in them (Hockerts 2001). On the other hand, just like all micro and macro actors, regulators have to deal with conflicting social interests. Public intervention does not eliminate the problem that environment is often an object of disagreement between different social actors. The evaluation criteria used by regulators is compliance, their assessment system is based on preventive authorization (licenses) and control (Miller & Szekely 1995).

Companies have a strong sense of citizenship, which emphasizes the respect for law and social consciousness. Regulatory bodies and public authorities legitimize their activity. A positive climate between authorities and companies, based on an adequate organizational and technical level of control, can contribute to environmental responsiveness. Regulatory bodies show a tendency to social interest, and authorities can assist the development of adequate responses.

The importance of customers as environmental stakeholders is based on their moral and/or self-perceived opportunity to claim interest in the environmental management of a company (Madsen & Ulhoi 2001). Both companies sustained to operate very much in a customer-oriented way. This way is adopted because companies perceive that customer satisfaction is a prerequisite for getting their products sold. Customers are, generally speaking, key stakeholders because they can influence the commercial viability of companies (Ulhoi, Madsen & Hildebrandt 1996). Their capacity to make their demand felt throughout market channel makes them also potential influential environmental stakeholders (Hockerts 2001).

The structural development of food retail trade has led to the concentration of distribution in Finland and in Italy (and in many other European countries). Both companies perceived that big retail trade companies, which are economically the most powerful and organizationally the most modern customers, are interested, or are at least becoming interested, in the environmental management of their suppliers (Miller & Szekely 1995; Hockerts 2001). The anticipatory approach to potential environmental pressure from customers can be explained by their capacity to affect the economic viability of their suppliers. The case companies perceived environmental management as a potential source of market value (Escoubès 1999).

According to the results, the environmental approach of key customers is similar to that of the case companies. Social expectations have evoked their interest in accredited environmental management systems, which in turn, have

repercussions on supply relationships⁷². Big retail trade companies have clear ideas of products that they want in their supermarkets and shopping centers. The Finnish company has implemented a certified system in response to the interest of customers. The Italian company perceived a similar demand as being imminent. The findings suggest that customers implement, or are about to implement, similar standardized systems, they demand a compatible environmental approach from their suppliers. Customers evaluate the environmental management of their suppliers according to the standard (Miller & Szekely 1995). The case companies saw the implementation of an ISO 14001 management system as necessary to retain old or reach new customers.

Both companies believed that the implementation of an ISO 14001 system was the way to satisfy the needs of customers. Customers do not evaluate the merits of environmental programs because a certificate is a socially accepted way to demonstrate an adequate level of environmental concern. The control belongs institutionally to public authorities. The lack of a deeper interest shows that environmental issues lack significance as competitive factors. The findings suggest that price is a decisive factor in supply relationships, this is coherent with the results of Ulhoi and Madsen (2001), Ulhoi, Madsen and Sinding (2000a), and Ulhoi, Madsen and Sinding (2000b), which suggest that competitive potentialities do not directly influence corporate environmental management.

The interest of customers in the environmental management of their suppliers currently exerts an effective or potential demand for certification. Customers do not evaluate the merits of environmental programs because environmental issues are not competitive factors. Customer need could be a potential driver for further measures.

The importance of consumers as environmental stakeholders is based on their moral, and/or self-perceived opportunity to claim an interest on the way in which companies manage environmental issues (Madsen & Ulhoi 2001). According to results, the companies operating in the meat processing sector must follow accurately the preferences of consumers and meet their expectations. As final buyers of products, consumers can ultimately influence the commercial viability of companies. Their preference influences the development of a product range, the qualitative and the functional characteristics of products (Ulhoi, Madsen & Hildebrandt 1996).

The inclusion of consumers among key environmental stakeholders is based on their capacity of boycotting products (Miller & Szekely 1995; Hockerts

⁷² Food scandals have affected at least to some extent consumption decisions in many European countries. The fear to loose clients has pushed retail trade companies to guarantee the origins of their products, and respond by private labels that meet more elevate standards of quality and control.

2001). The respondents, perceived environmental management as a question of consumer acceptance. The case companies constantly follow the evaluation criteria that consumers use in their buying decisions so as to know what qualitative characteristics consumers appreciate, and what factors might impede the choice of their products.

The findings suggest that the importance of consumers is based on their potential, rather than effective, interest in environmental issues (cf. Hockerts 2001). According to the Finnish company, consumers assess concrete issues, like the correct disposal of packages (Miller & Szekely 1995). However, the findings also suggest that companies cannot afford to neglect other environmental issues because through a bad reputation they would risk losing the acceptance of consumers. Both companies sustained that consumers were increasingly interested in the origin of products for safety and social acceptability reasons. Environmental issues are interlinked in the set of guarantees of the origin of products.

The Finnish company believed that the environmental evaluation criteria of consumers was primarily relative to the environmental impact of agriculture, but not necessarily linked to processed foods. Consumers tend to be verbally favorable to environmentally friendly alternatives, but they do not choose products on the basis of environmental quality. The conclusion is that a higher environmental quality of products would increase price level, but this consumers are not ready to accept (cf. Miller & Szekely 1995). The company also sustained that reliance on domestic food was a typical attitude of consumers in different countries: global consumers have local tastes. Therefore it was excluded that Finnish food products could have success abroad thanks to their country of origin. This is coherent with the opinion of Ahola (2000, 11):

"The value of being Finnish is in average low in the international food market".

According to the respondents, the marketing of Finnish food in the broad foreign market would demand excessive financial resources. The Italian company exports products under the label of *"Raspini – products of Italian origin."* The value of origin is related to cultural and gastronomic factors.

The Finnish company connected the question of emotional and uninformed criticism of stakeholders to consumers (Iyer 1999). The findings suggest that a present day urban consumer may have a distorted picture of agricultural production, as proved by those excessively humanized ideas of farm animal's living conditions. The perception was that a minority of consumers support this type of critique, which was also perceived as being verbal rather than behavioral (cf. Miller & Szekely 1995). However, companies have to constantly monitor the preferences of consumers and react, in case of significant change, by adapting the product range or the approach to determined issues. Some consumption trends, driven by social situations (family, work), may also ag-

gravate the environmental burden of production and consumption (caused e.g. by package waste). Both companies perceived that environmental interest of consumers was not likely to change rapidly (Escoubès 1999). The Finnish company sustained that the increase of interest would imply a lively public debate, which in turn, could be triggered by significant events (like the BSE epidemic, which had changed buying behavior).

Currently, consumers do not question the environmental quality of food, hence, they do not stimulate improvements. They are more critical in words than in deeds. The capacity of consumers to demand efficient and feasible environmental improvements is diminished by the lack of knowledge and the emotionality of arguments.

The Italian company placed society's interest in environmental issues second to regulative bodies. The Finnish company connected social interest directly to the development of regulatory framework. The research suggests that social expectations ultimately determine the responses of companies.

The Finnish respondents included among environmental stakeholders farmers, competitors, owners, industry associations and package industry (cf. e.g. Ketola 1999; Stead & Stead 2000), this for the following reasons. The importance of farmers is based on their capacity to contribute to the legitimacy of a food company because of their influence on the environmental quality of products. The Italian company stressed their importance in finding a more efficient traceability of products. Both companies assess the environmental performance of their suppliers on the basis of regulatory compliance and eventual codes of conduct.

The environmental aspects of farm production have an indirect legitimizing effect on companies. Regulatory compliance and eventual codes of conduct produce the desired effect.

The Finnish company regarded competitors as important partners of environmentally efficient solutions, and therefore listed them among the environmental stakeholders. Findings show that the relationship is justified by mutual economic benefit. The Italian company did not have such collaborative experiences, and sustained that the local mentality did not encourage collaboration. These relationships will be analyzed in the context of multilateral environmental measures (7.4). On the basis of the responses of the Finnish managers, competitors can be seen to exert environmental pressure if they stimulate a company to participate in joint environmentally beneficial actions. Industry associations⁷³, which were also included among important environmental stakeholders, can exert the same pressure under the coordination of a collec-

⁷³ Industry associations typically pursue objectives of enhancing the competitiveness and development of their members.

tive organ of development. Both collaborative forms help companies to acquire resources for the improvement of environmental performance in the shape of shared structures or knowledge of good solutions. Industry associations can develop solutions that become adopted widely in the sector (Ulhoi, Madsen & Hildebrandt 1996).

Competitors can drive the participation of companies in collective initiatives that produce environmental benefits. Industry associations can coordinate and promote collaboration.

The Finnish respondents also included the packaging industry among the important environmental stakeholders, not because of an environmental pressure exerted on the company, but because the development of ecological packages can mitigate the impact of food distribution and consumption. Packages generate waste during the distribution of food products and after their consumption. The company recognizes that package industry can mitigate the environmental impact of the whole food chain.

Package industry can mitigate the environmental impact of the whole food supply chain.

The companies did not include local community and environmental groups among key environmental stakeholders because they did not perceive effective pressure from them (Miller & Szekely 1995; Hockerts 2001). The Finnish company argued that the local population might have used odor emissions as an evaluation criterion, and preferred solutions with a major environmental burden. Moreover, the demand of the local community might contrast with the economic interest of the company, and in this case, a large industrial company might be unable to give priority to these preferences because the scale of production and efficiency imply local inconveniences (cf. Miller & Szekely 1995; Iyer 1999). Environmental groups were left out because the companies believed that the risk of conflict was low.

Madsen and Ulhoi (2001) argue that different external stakeholder groups will exert an increasing influence on companies because environmental issues are given a growing attention in society. The findings of this research argue for an increasing attention to environmental issues from regulative bodies and customers. The latter (retail trade companies) develop their business according to market expectations. The findings also suggest that the implementation of a certified environmental management system satisfies, to large extent, current and imminent external expectations.

Environmental performance will be developed within the framework of standardized environmental management system. This satisfies the needs of external stakeholders.

The classification of environmental stakeholders in supportive and non-supportive (Savage et al. 1991) integrates the analysis of stakeholder pressure.

Regulative bodies are the main drivers for corporate environmental responsiveness and, therefore, classified in supportive stakeholders. Customers can be classified in effective or forthcoming supportive stakeholders because they encourage the implementation of certified management systems. Consumers could be classified in non-supportive stakeholders because they do not reward environmental responsiveness. Competitors emerge as supportive stakeholders to the Finnish company because they have combined efforts to design eco-efficient solutions (Dutton 1996). The distinction appears to be firm-specific and dynamic, also issue-contingent, since support or non-support is relative to specific environmental initiatives. Moreover, a stakeholder group can contain both supportive and non-supportive members, which is an additional element to the firm-specific nature of the classification: a firm can e.g. have supportive and non-supportive suppliers, as showed by the responsiveness of farmers. Some farmers commit to codes of conduct (with voluntary improvements) promoted by food companies, while others reject standards that exceed compliance.

The findings of this research support the importance of external pressure as driver of environmental responsiveness (e.g. Henriques & Sadorsky 1996). They are coherent with the results of Madsen and Ulhoi (2001), and Fineman and Clarke (1996), they suggest that regulators exert a growing influence on the responses of companies. The importance of European Union regulations prevailed also in this research (similarly Madsen & Ulhoi 2001). The influence of customers was also confirmed (Madsen & Ulhoi 2001). The results of this research are coherent with the findings of Ulhoi and Madsen (1996) and, consequently, contrast the findings of Fineman and Clarke (1996), which assign an important role to environmental pressure groups. According to the results, the relationship to environmental groups is non-existent because food processing does not cause considerable harm, and because there have not been, in the past, particular problems (negative events, negligence).

The environmental management of companies can be examined in the light of the *determinist views of organizational development*. They explain many aspects of the development of corporate environmental management. The resource dependency theory (Pfeffer & Salancik 1987) emphasizes, according to its name, the need of organizations of external resources for their activities. The findings suggest that the environmental approach of companies is determined by the quality of resources that they internalize. In particular, the environmental change of companies up to the current level has been facilitated by the development of production standards (regulatory standards) concerning raw materials and processes, and the technological development of equipment. The availability of technology (process or energy production technology) is a key determinant of environmental change. Regulative standards and reliable

information are produced with the significant contribution of public institutions. Companies specialized in environmental technologies and services have a key role in the determination of processes because knowledge is a key resource for the development of performance. Both companies stressed the importance of qualified employees: responsibility, willingness to do a good job and professional skills are the basic elements of good environmental management. In fact, for both companies, the internal human organization represents the most important environmental stakeholder.

Both companies seek resources that guarantee the acceptability of their activities in the eyes of powerful external stakeholders. The first criterion of acceptability is economic performance: companies must be economically viable, and environmental issues must not affect profitability negatively. This criterion determines the selection of resources. The environmental quality of resources is not a core criterion of selection, but the expectations of powerful stakeholders are taken into account. These expectations have made the companies integrate (or intend to integrate) environmental tasks in organizational functions (particularly in the technical service and in quality control). According to the results, the quality of products is determined by the preferences of consumers, which emphasize other than environmental aspects, though their preferences may be linked to environmental quality (domestic foods in the case of Finnish company, and more broadly the traceability of products in the case of the Italian company). The price level that consumers accept limits the level of environmental quality (affecting, in the first place, raw materials and packages).

The environmental quality of products depends on the price level that consumers accept.

The perceptions and experiences of the case companies are substantially coherent with the arguments of the population ecology approach (Hannan & Freeman 1977), which give more weight to external determinist forces than the resource dependency theory. The findings suggest that the competitive pressure is considerable, and that companies have to make constant efforts to satisfy the needs of customers and consumers. Competition is characterized by cost efficiency.

Cost efficiency-based competition characterizes the market.

Institutional approach identifies institutional forces as the causes of similar organizational choices and paths of development (Powell & DiMaggio 1991; Scott 1995). The environmental behavior of both case companies can be, to a large extent, interpreted as a response to institutional forces (Hatch 1997). It emerged that a certified management system was a response to social expectations, and was becoming a way to offer guarantees to customers (Powell & DiMaggio 1991). The implementation of a standardized management system

is a result of coercive isomorphism, this originates from other organizations that the company depends on and from the cultural expectations of society (Powell & DiMaggio 1991). A coercive isomorphism effect is generated, obviously, also by environmental regulations, perceived as being severe. The environmental regulation of agriculture has an indirect effect on companies: it affects the profitability of agriculture, having repercussions on food industry. Companies are aware of sanctions for non-compliance, but there is also a cognitive aspect relative to environmental regulations: they are perceived to reflect a general social interest in environment (Scott 1995). The findings also suggest that companies strive to adopt solutions that exceed slightly compliance in order to strengthen their image of responsible actors (Wade-Benzoni et al. 2002). The participation of the Finnish company in collective initiatives within the sector (also as a member of industry associations) is, in turn, a manifestation of normative isomorphism (Powell & DiMaggio 1991).

Following Scott (1995), the implementation of a standardized environmental management system can be interpreted as a normative manifestation of institutions, originating from professional and social obligation. According to the responses, most managers view a certified system as an appropriate way to manage environmental issues, which confirms that institutions also influence individuals (Wade-Benzoni et al. 2002). Organizational size and the availability of resources can explain the different approach of companies. The medium size Italian company regarded the environmental approaches of competitors as models (Powell & DiMaggio 1991). The managers of the Finnish company denied, instead, a mimetic isomorphism effect on marketing decisions: they sustained that market communication should be original to produce benefit.

A cognitive aspect of the institutionalization of environmental management is the belief that people, and consumers in particular, do not give priority to the environmental friendliness of products (Scott 1995; Wade-Benzoni et al. 2002). According to the respondents, market pressure for further measures is low. However, they perceived that there had been a significant evolution of social values during the past decade. A certified system has become the right, appropriate and obvious approach to environmental issues (Heiskanen 2000)⁷⁴. It produces a desired social legitimacy effect, while its value as a competitive asset (based on the effective merits of environmental improvements), remains low (Hatch 1997; Heiskanen 2000; Ahonen 2001). Companies across different production sectors embrace similar environmental standards, which are perceived to facilitate environmental management (in business to business and

⁷⁴ The implementation of certified environmental management systems through the whole food chain is promoted in Finland by a National Quality Strategy, launched by public institutions (see <http://www.laatuketju.fi>).

business-authorities relationships) and make its assessment easier. The case companies also perceived that some opinions had become institutionalized among consumers. For the Finnish company, consumers prefer domestic foods, and for the Italian company, they appreciate traceability. These ideas have influenced the competitive assets of companies.

The findings suggest that companies are ready to implement incremental environmental actions based on regulations and eco-efficiency. These are the main drivers for the disappearance, transformation or replacement of organizational practices that do not meet acceptable environmental standards (Jennings & Zanderberg 1995).

Though the findings show that the effect of external determinist forces explains, to a large extent, the environmental change of companies, the respondents sustained that environmental management had also decisive intra-organizational drivers. They claimed that the shaping of environmental approach was influenced also by *voluntary choice*. Institutional approach seems to offer a valid explanation for the managerial approach to environmental issues. In fact, institutional forces affect individuals and groups inside organizations, directing managerial decisions (Powell & DiMaggio 1991; Whittington 1988; also Ahonen 2001; Kirjavainen 1997). The adequacy of a certified environmental management system is an institutionalized idea of the integration of environmental issues in business activities. According to the results, environmental management depends on managerial attitude. Managers, however, are influenced by the ideas and attitudes of powerful external stakeholders, which in this case are professional networks of standard setters.

Institutional forces influence the personal attitude of managers to environmental issues.

The institutionalization of ideas inside and outside organizations seems to be a valid explanation for the environmental change of case companies. Strong voluntarism is supported neither by the level and shape of responses, nor by the interaction and feedback between external forces and managerial choices. The findings suggest that the environmental choices of managers have not regulated or created external forces, but simply adapted organizations to external environment (cf. Hrebniak & Joyce 1985). Institutionalized ideas motivate and legitimize the chosen approach.

Environmental measures are responses to regulations or to perceived expectations of other powerful external stakeholders (Chandler 1962; Starik & Rands 1995; Fannin & Rodriques 1986). Currently, environmental management is developed mainly in order to adapt activities to effective or imminent regulative restrictions (Chandler 1962; Brown & Starkey 2000; Fannin & Rodriques 1986). Environmental responses that go beyond compliance must be coherent with organizational values, which emphasize profitability and cus-

tomers satisfaction. The shape of environmental responses is determined by institutionalized ideas of good environmental management. The primacy of economic results is not questioned by these ideas, and this has facilitated their internalization. In fact, it is clear that resources are not allocated to voluntary initiatives unless they generate economic benefit.

Management adapts a company to external environment, responding to and internalizing institutionalized ideas of good environmental management. A basic institutionalized idea is that environmental management must not contrast economic objectives.

According to the respondents, the way in which organizational managers see environmental issues (like any other business issue) is essential to the development of environmental management (Starik & Rands 1995). An interpretation, within the framework of institutional theories, gives power to voluntary choices in a correct perspective.

Following a classical view of managerial tasks, we observe that managers make decisions evaluating both external threats and opportunities as internal strengths and weaknesses, being influenced by social expectations and personal preference (Gilbert, Hartman, Mauriel & Freeman 1988; Mintzberg 1983). The findings suggest that environmental issues are connected to external threats, relative to non-compliance and bad reputation, and also, to internal capacities to integrate economic efficiency in environmental improvements. The need to integrate economic and environmental efficiency is, in turn, driven by the threat of low cost competitors, facilitated by the globalization of market.

The managers that participated in the interviews felt that they could influence the environmental management of their companies. However, most managers sustained that there was no need for their personal contribution because the direction of development was clear: institutionalized ideas guided the development. But the way institutionalized ideas are internalized can make a difference. In fact, environmental decision-making and the implementation of actions demand responsibility, willingness to do good work and interest (Chandler 1962; Starik & Rands 1995). According to some respondents, the roots of willingness are to be found in the local spirit of making business, which appreciates a good job. This effect of normative isomorphism (Powell & DiMaggio 1991) makes a careless attitude to the natural environment seem like bad management.

According to the responses, the environmental change of both companies has been a result of the internalization of institutionalized ideas. Managers acted as catalysts in the internalization of institutionalized ideas (cf. Starik & Rands 1995). A decisive factor was that environmental management did not

reduce profitability. This emphasizes the importance of financial drivers to organizational development (Tainio 2000).

The findings suggest that owners (shareholders) are always important stakeholders, and therefore they are perceived also as important environmental stakeholders. A plausible reason for the inclusion of owners among environmental stakeholders is their capacity to claim economic interest in a company (Madsen & Ulhoi 2001). Though shareholders are included among important environmental stakeholders, they are not seen as drivers for improvement (Hockerts 2001). Their profit expectations push the companies to improve the quality of products and processes (Tainio 2000). They approve corporate responses to regulatory and market pressure rather than drive them. Environmental management is not an issue that could directly increase the share value, but other aspects tend to prevail in its determination in the food sector. The Finnish company sustained that product safety and disease free production influenced the share price, and, consequently, environmental management could contribute implicitly to its determination. It was observed that the ethical side of environmental management did not influence the share value, while the eco-efficiency side had a potential effect. The perceived potential immediate negative effect of environmental negligence can be seen as a risk factor, but the perceived risk was low because environmental management was believed to be at good level.

The profit expectations of shareholders must not decrease because of environmental initiatives. On the other hand, bad environmental management must not put legitimacy and economic results at stake.

As previously mentioned, the arguments for the importance of managerial interest should be interpreted in the framework of institutional forces inside organizations. The capacity of employees to introduce their ideas to companies was connected to contemporary economic benefits (cf. Andersson & Bateman 2000). As a result of effective change forces, a standardized environmental management system has become a right and sufficient response.

After the implementation of a standardized environmental management system, there are no drivers for a substantial change of environmental approach.

The conclusions drawn from the findings concerning change forces are represented in an outline of the main points (fig. 7.3 on the next page).

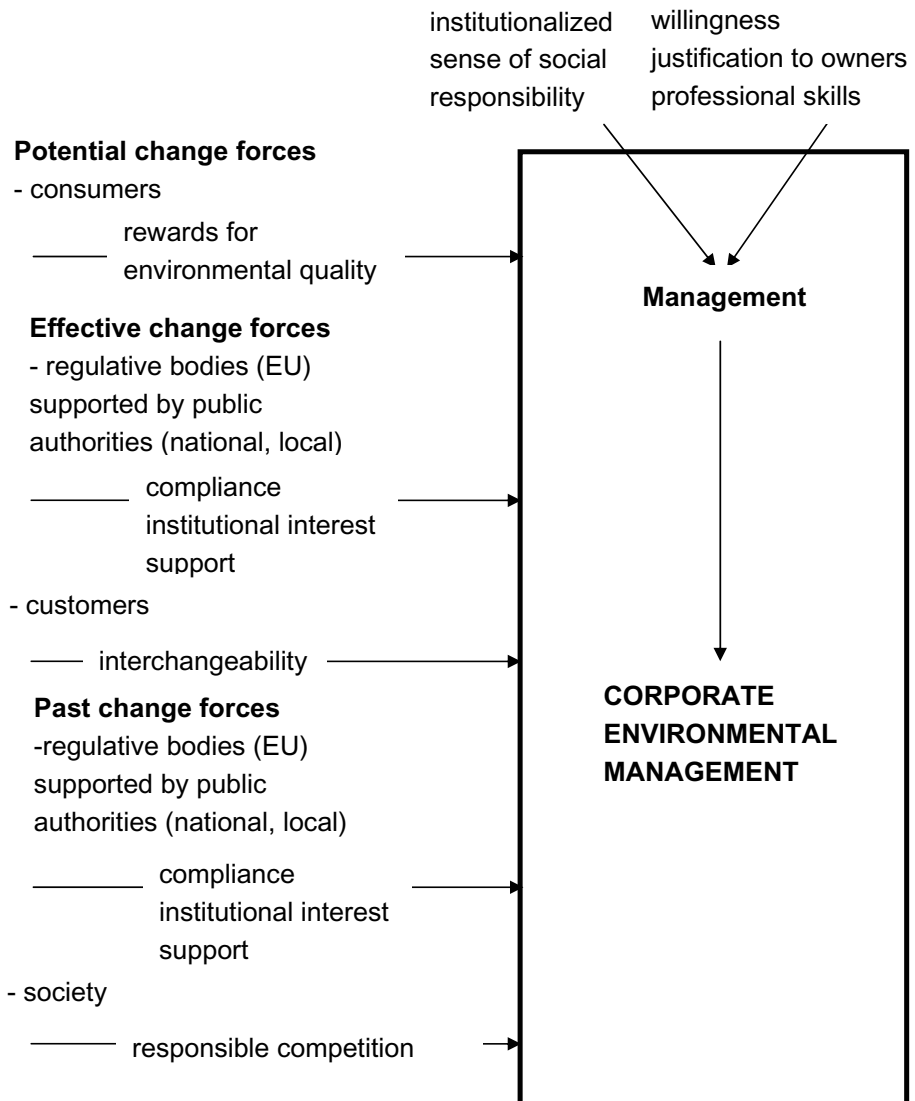


Figure 7.3: Emerged influence of change forces

7.3 Motives

Ethical motives did not dominate in the responses, but they contributed to the interpretation of environmental management in two ways. First, the ***ethical values*** that act ***as drivers for corporate environmental management*** are moderate ethical considerations and judgments that are perceived as institu-

tionalized in society. Second, deep green ethical motivations show their impertinence and confirm the prevalence of “*amoral*” motives.

Managerial values do not emphasize the ethical nature of environmental issues. According to the findings, most managers regard themselves as pragmatically concerned of environmental issues. It does not induce to treat environmental issues as ethical, but rather as technical. It can, thus, be claimed that the ethical sensitivity of managers to environmental issues is rather low. The question may not be their ability to identify an ethical aspect of environmental question, but the weight given to it (Flannery & May 2000). Some respondents claimed that the environmental awareness of management was high. The measure of environmental awareness is social acceptability and regulatory compliance. The fact that voluntary improvements must normally generate cost savings supports the prevalence of “*amoral*” motivations.

The findings suggest that environmental values are a cultural question. Managers have embraced environmental values that prevail in society, absorbing them from public opinion, social climate and family. Environmental values follow the logic of common sense, which stresses their pragmatic nature. Given that managerial values are products of institutionalized social values, the level of managerial ethical sensitivity is coherent with the low ethical sensitivity that was perceived to prevail in society (cf. Kilmann et al. 1985). The respondents did neither question nor criticize the prevailing shallow ethical approach to environment.

The ethical approach of managers to environmental issues is moderate. Environmental ethics is a cultural question. Managerial values are products of the institutionalization of environmental values in society.

The alignment of organizational direction to prevailing social values takes place by a top-down introduction of a standardized management system (Alvesson 1989; Starik & Rands 1995). The management has, thus, adopted an institutionalized method (across production sectors) to involve the organization in environmental management. The system is based on regulatory compliance, and an economically rational way of thinking and behaving rather than on ethical values. It demands the commitment of employees to pragmatic rules of behavior.

Managerial values that are task-oriented, and the personal environmental values of individuals holding managerial positions, seem to converge. Environment does not have particular significance in the private life of managers (cf. McCuen 1998). In fact, in private life, managers approach environmental issues critically, using as guiding rules common sense and the sense of social responsibility, i.e. good citizenship. The respondents denied a disinterested attitude, and gave examples of how environmental responsibility influences their

opinions and certain routines (like sorting). In a work place, these rules change to eco-efficiency and market considerations. The moral concern of individuals is shallow, and would not be a sufficient driver for change. Technical and market considerations, instead, make sense. The concept of depersonalization does not describe the environmental approach of managers because they feel that they follow a shallow personal ethical approach. It is difficult to say if efforts to approach environmental issues pragmatically and scientifically have made ethical sensibility and moral concern shallow. On the other hand, if moral concern was shallow, pragmatic and scientific approach makes it reasonable to at least consider environmental issues.

The environmental values of the companies and their management are the fruit of social interaction. The management designs the organizational approach on the basis of institutionalized ideas of what is good environmental management. These ideas have been internalized because they fit business strategies that emphasize customer satisfaction, professionalism and long-term profitability (cf. Wehrmeyer 1995; Ford & Richardson 1994). Some responses supported explicitly the dialogical nature of the relationship between managers and the organization they work for (Ott 1989), but the perceived influence of predominant social values and attitudes, on the environmental approach of managers and the organization, was more pronounced.

According to results, managers do not repress a personal ethical approach to environmental issues because their personal ethical approach is moderate and coherent with the organizational approach. Consequently, there were no significant conflicts between personal and organizational values, and managers were satisfied with the corporate environmental approach. Congruence between personal and organizational values was perceived as being important. One observation was that value conflict would not trouble much a person that was not very committed to his/her job (cf. Quinn 1997), but this did not seem to be a prevailing situation in the companies under investigation.

Managers adopt professional and private behavioral norms that common sense and good citizenship suggest. The ethical judgment of managers disapproves of non-compliance and intentional harm.

The formal set of *organizational values* and objectives do not contain environmental references in either of the case companies. They communicate the vision that the management has of good business, one that avoids setting objectives concretely out of reach. Formal organizational values and objectives orient organizational behavior to customer satisfaction, good financial result and good quality of work. The level of perceived social concern has been internalized, and it is natural to take the environment into account (Caselli 1998; Carroll 1996). Several respondents sustained that environmental management was based on values. In their opinion, a developing company cannot

neglect a dimension of its activities that draws social interest. Environmental management has been a way to improve business, and adapt the company to a changing social environment. What people believe is moral does not obviously make actions moral (Hutchinson & Hutchinson 1996), but the findings suggest that environmental actions are evaluated according to institutionalized values.

Formal organizational values and objectives do not refer to the environment. They orient activities to customer satisfaction, profitability and qualified work.

The moral conduct of business is seen as a means to make advantageous decisions. Environmental responsibility is a question of self-interest to both case companies, because it is a question of social acceptance and economic viability (Kaler 2002). Adaptation is seen as equal to improvement, and is coherent with the sense of ethical responsibility.

Organizational development takes into account economic efficiency and social acceptance, these guarantee the viability and the profitability of a company. Corporate environmental responsibility is a manifestation of good citizenship and good business.

Because the ethical value was absent from formal environmental values and objectives, it must not be overstated. However, since several respondents claimed that environmental values guide organizational development towards a socially acceptable direction, their role must not be ignored either (cf. Meglino & Ravlin 1998). The lack of formal environmental values confirms the compliance-based and eco-efficiency-driven approach to environmental management. The findings suggest that voluntary choices are based on such traditional values as common sense and thrift, which make economic sense.

The values and objectives that the case companies espouse represent principles that, according to the management, guide successful organizational behavior (Hofstede 1980; Dyer 1986; Argyris & Schön 1978; Schein 1985). Environmentally hazardous practices are prerequisites for carrying on business activities. Both companies perceive that environmental management must be based on facts. This attitude discourages a rhetorical use of environmental values (cf. Ott 1989). The companies do not perceive external pressure to espouse environmental values (cf. Meglino & Ravlin 1998).

The companies were perceived as being examples of homogeneous culture, based on morally creditable and economically efficient values. Internal relationships are based on mutual trust, and on the premise that individuals have a high sense of responsibility. A compliance-based environmental management fits existing culture (cf. Schein 1985; Ott 1989; Crane 1995). Environmental management contributes to the organizational development, it is accepted by management because it fulfils social expectations and allows companies to pursue growth and profit. Environmental actions have regulatory or economic

justifications, and therefore they are not questioned nor are they a source of conflict (cf. Caselli 1998; Collins 1989; Croci 1993).

Morally creditable and economically efficient values guide organizational activities. Internal relationships are based on mutual trust and the sense of responsibility.

The significance of **external** cultural **values** to the environmental approaches was unquestionable. Social concern for environment has increased, and companies have adapted to the change by internalizing values that they previously rejected (cf. Peterson 1999). According to the results, laws and regulations reflect the external values that companies have to take into account (cf. Ott 1989; Lawless & Finch 1989).

The companies and their management share the level of ethical concern perceived in socio-economic and political environment, and do not question it (cf. Alvesson & Berg 1992; Peterson 1999). Some respondents believed that ethical concern of the environment was a settled matter, while others foresaw that it would increase. The approach to the eventuality of a change was adaptive rather than proactive; corporate environmental approaches would not change significantly. Social concern had risen at the early 1990's, after numerous environmental disasters of the 1980's, this social concern was driven by the interest of mass media and by political efforts to change the course of events. The findings do not give any reason to believe in an imminent increase of ethical concern in society.

Environmental values in society have already undergone the most sensible change, this has led to the current corporate environmental approaches.

The findings confirm the importance of key customers' approach to the environmental ethics of companies (Pettersson 1999). The demand of customers (retail trade) and consumers makes companies (industry and trade) adapt their ethical approaches, at least apparently. The weakness of a consumer-driven approach is evident: companies prefer to appeal to a consumers' low ethical awareness as reason for the lack of ethical reflection, though some respondents criticized consumers for being too credulous and scarcely informed (Dion 1998; Iyer 1999). Customers and consumers are not seen as plausible drivers for environmental ethics, though they would be the most powerful drivers for change if they did not accept the products because these fail to reach adequate ethical standards.

There are no effective external drivers for changing the current shallow ethical dimension of environmental management.

The findings support a pragmatic approach to environmental ethics. The case companies and their managers avoid philosophical judgment in organizational choices, but they take a stand on the social acceptability of activities

and measure it, mainly, by regulatory compliance. An evaluation of the meaning of *ecocentric and anthropocentric environmental values* is out of place (cf. Iyer 1999; Carson 1962; Leopold 1970; Minteer & Manning 1999).

The internalization of institutionalized environmental concern does not reach to ecocentric and anthropocentric evaluations.

Corporate environmental ethics are based on responsibility; conducting economically viable and socially acceptable business. The ethical loading of environmental issues was moderate, and strictly tied to the level of social concern and the economic objectives of the companies. This approach is coherent with the shallow, common sense-based, very pragmatic and somewhat critical approach of managers as individuals. Ecocentric ideals like sufficiency do not make economic sense (cf. Gladwin, Kennely & Krause 1995; Robertson, Hoffman & Herman 1999; Iyer 1999; Purser, Park & Montuori 1995). If there was a value change, it would derive from new social values. However, the respondents did not argue for the urgency of a value change. Many sustained that the level of environmental management was currently good (cf. Gladwin, Kennely & Krause 1995; Purser, Park & Montuori 1995).

The environmental responsibility of managers as individuals and the organizations as a whole (or the moral minimum of actions) were based on citizenship, rather than on ethical caring, based as it is, on emotions like compassion and kindness⁷⁵ (cf. DesJardins 1998; Bowie 1991; Cafaro 2001). It makes individuals avoid negligent actions in daily routine, and choose a behavior perceived as being socially acceptable, like the sorting of waste. Both companies are favorable to the enhancement of a practical approach to improvements (Minteer & Manning 1999). Some respondents made general observations on the need to protect ecosystems, but the question was treated as technological rather than ethical (cf. Purser, Park & Montuori 1995). According to one response, critical thinking makes it difficult to accept certain solutions proposed as environmentally friendly. What is better and what is worse may be a matter of personal judgment.

A classical anthropocentric limit to overexploitation, highlighted by both companies, was the continuity of activities (Eckersley 1992). In fact, they give priority to the continuity of activities over short-term profit.

The findings suggest that the companies rely, to a large extent, on a *technocentric* mitigation of environmental impacts (Purser, Park & Montuori 1995; Gladwin, Kennely & Krause 1995). A rational approach to the resolution of environmental problems takes credibility from emotional and ethical arguments. This approach is consistent with the belief that the technological

⁷⁵ See for the definition Schaefer's model of ethical decision-making, <http://www.ethicsandbusiness.org>.

efficiency of activities is decisive for the development of business. Consequently, environmental management consists of the combination of economic and environmental benefits, and the measurement of quantitative results.

Environment is a pragmatic question of resource efficiency and social acceptability, which is managed by means of knowledge-based technological solutions.

However, technocentric thinking has not completely displaced *pragmatic* ethical thinking. Compliance with regulations and the social acceptability of activities determine the shape of ethical thinking (Purser, Park & Montuori 1995). The findings do not suggest that environmental problems are seen as overestimated, but they do suggest that ethical thinking does not limit growth (Shrivastava 1995). The Finnish company stressed that growth was a precondition for survival, and therefore its importance was unquestionable. The Italian company had recently grown from small to medium size, and it sustained that there was no imminent need to grow. However, it was strengthening the human organization and looking for new market opportunities (cf. Purser, Park & Montuori 1995).

Both companies recognized that the scarcity of water may become a physical problem in the near future. They approached the question from a technocentric point of view (cf. Shrivastava 1995; Davidson 2000). Water is a strategic resource, and its scarcity could threaten the continuity of business. The companies regard ecological sustainability as a broad problem that concerns the entire industrial sector, and should have sector-wide, equal solutions. They leave the definition of sustainability to socio-political institutions, and adapt their approaches accordingly (cf. DesJardins 1998; Barbier 1987).

Ecology was neither a core value to companies, nor was it neglected. The approach falls somewhere in the middle between the ideas of social ecologists and a business as usual approach. The companies pursue eco-efficiency by waste management and the choice of process technologies, when they are economically affordable and technically suitable. The respondents perceived these technological choices as normal managerial issues in all industrial sectors: economic convenience was likely to lead to good environmental solutions. According to this logic, a simple economic principle of mass production benefits can be translated into environmental language: when production increases, relative consumption and waste decrease, improving eco-efficiency. The quality of products is based on the principles of agricultural production, which guarantee that products have a sound basis; regulatory compliance limits the use of intensive methods. The logic is that good business is good environmental responsibility.

The case companies consider the sustainability principles that regulatory compliance imposes on their sector, but ethical principles do not have deep

meaning, or form effective practical rules of behavior (cf. DesJardins 1998). Ethical objectives that refer to pollution prevention and to the avoidance of direct and indirect harms have been adopted from the language of standardized environmental management systems (cf. Hart 2001; Ketola 1999; Purser et al.). Voluntary environmental initiatives never sacrifice profitability: continual improvement within the system framework is based on economic rationality and customer satisfaction (cf. Crane 2000; Fineman 1996).

The findings suggest that there are no valid motives for the instrumental use of environmental ethics (cf. Dion). Environmental management is used to harness organizational self-interest. In the Finnish company, eco-efficient solutions proposed by employees are monetarily rewarded, but environmental ethics does not have similar instrumental value (cf. Niiniluoto 1999; Purser, Park & Montuori 1995).

In the meat processing sector, ethical approach refers to the treatment of farm animals and to the satisfaction of customer needs. The codes of conduct of meat suppliers and the guarantees of traceability are the response to a mixed external demand of food safety and ethical production principles. The case companies did not find it particularly advantageous to use environmental ethics for instrumental purposes in their communication to external stakeholders; communication must be based on quantifiable data and facts. Certification and indicators are not seen as intrinsic values, but as a rational way to conduct business. The value of environmental management as a competitive advantage was perceived as being low, this reduces the interest in emphasizing it (cf. Dion 1998; Iyer 1999).

Environmental ethics has low instrumental value.

The case companies find it natural that *profit-oriented motives* characterize their interest in environmental issues because of their institutional task, to contribute to the socio-economic welfare, and generate profit to shareholders. Taking also into account the shallow interest of market in environmental ethics, it has become natural to treat environmental improvements as questions of eco-efficiency. Profit-oriented motives are the main drivers for voluntary improvements. Cost efficiency is a key competitive factor, and an important driver for the development of organizational processes. The globalization of market, the concentration of retail trade, and low profit margins characterize the competitive arena. Economic and ecological trends accentuate the need for eco-efficiency because the prices of natural resources tend to rise. Consequently, *the eco-efficiency of activities* guides environmental improvements. Cost efficiency is in the interest of shareholders, and required by the competitive situation. Eco-efficiency is an extension of cost efficient thinking, with the logic that economically viable environmental management is also

environmentally efficient (cf. DesJardins 1998; Porter & Van Der Linde 1995; Hart 1995; Miller & Szekely 1995; Gillespie 1992).

A way to avoid conflicts between profit and environmental objectives is careful organizational planning, this emphasizes the fact that environmental actions are not only technical, but also managerial problems (cf. Walley & Whitehead 1994; Reinhardt 1999). However, in both case companies, the logic seemed to be that economic improvements come naturally from modern technological solutions. Eco-efficiency has, thus, been planned outside the companies that adopt the solutions, in research centers and companies specialized in industrial equipment. Since the interest of market in environmental issues is low, the companies perceive that eco-efficiency remains the only natural approach to environmental issues. Consequently, they concentrate on the improvement of resource use (cf. Porter & Van Der Linde 1995; Hart 1995; Miller & Szekely 1995; Gillespie 1992).

Eco-efficiency of activities has led to the optimization of resource use and to the minimization of waste.

According to the results, eco-efficiency leads organizational development to the right direction, within certain limits. These limits are the continuity of profitable business and the maintenance of a good brand image. The former excludes the depletion of resources for the maximization of short-term profit. The latter is based on good quality of products and professionalism.

Cost efficiency must be balanced with objectives to pursue continuous profit and maintain a good brand image.

When environmental management supports business objectives, it becomes a natural part of activities, and acquires a consolidated role in companies. In fact, environmental management must fit an organization (cf. Miller & Szekely 1995). The case companies take (or are interested in taking) measures that prove their economic validity and, thus, contribute positively to the financial performance, together with the rest of organizational development (Miles & Covin 2000; Russo & Fouts 1997; Nehrt 1996; Innovest Strategic Value Advisors). Eco-efficiency is coherent with a cost efficient way of thinking, and allows the integration of environmental considerations in managerial decisions. However, environmental benefits are like results of serendipity: companies find a way to reduce costs and can contemporarily present the action as an environmental improvement. This approach limits the risk of making erroneous decisions, and increases the stability of actions, but the drawback is that it narrows the field of environmental management, excluding innovative and creative initiatives. The companies exclude voluntary investments that would be made only for environmental reasons (cf. Graves & Waddock 1997). Investment decisions are always based on profit, technical and quality motives, and the scarcity of resources demands that they have good economic jus-

tifications. Economic responsibility does not allow different environmental initiatives for two interlinked reasons: market does not demand them, and the management does not believe in them. Since resources are scarce, companies cannot afford investments that do not have a long-term sound economic basis.

Cost efficiency provides a sound basis for environmental improvements. Creative and innovative actions would contain a major risk of failing.

The findings suggest that environmental management is not a source of competitive advantage. Environmental management is a condition for the legitimacy and the social acceptance of activities, and one dimension of operational efficiency. The Finnish company argued that it would need adequate development, but was inclined to follow a collective development of the whole sector. The Italian company excluded the possibility that it would become a differentiating competitive advantage. The market does neither demand higher responsiveness, nor is it interested in environmental communication (Brown & Karagozoklu 1998; Hart 1995; cf. Sharma & Vredenburg 1998; Hartman & Stafford 1998). Operational efficiency requires investment capacity and managerial ability to make advantageous decisions. Consumers would pay attention to environmental issues only if problems emerged (negative publicity in media), but they would not reward creative initiatives. As mentioned earlier, an eco-efficiency-based approach does not encourage the allocation of resources to innovative or creative solutions (cf. Hart 1995; Graves & Waddock 1997). Innovation is more likely to occur in companies specialized in eco-efficient production equipment and environmental services.

Environmental management meets social expectations. The pursuit of operational efficiency can be represented with environmental concepts.

The case companies are not interested in creating a particularly strong *environmental imprint on corporate and brand image*. The responses give to understand that environmental management contributes to their improvement. It is influential because the idea that companies must organize their environmental approaches systematically is widespread in society. It is not a core dimension of image, but its contribution is important. The Finnish company was satisfied with its legitimizing effect, and sustained that it enhanced an image of a trustworthy and responsible business partner. The respondents believed that further efforts to emphasize the environmental dimension of corporate image could encounter credibility problems: a pronounced environmental concern and large scale industrial production did not form a coherent mix, this argued also against the use of environmental rhetoric. Another reason for the lack of development may be the uncertainty of economic return.

Environmental management contributes to an image of a trustworthy and responsible business partner. Environmental management must be a credible and coherent part of image.

The findings suggest that customers (retail trade) will not buy unless a certain degree of environmental awareness is shown. A certified environmental management system has the desired effect on image: it feeds trust and gives credibility (Goodstein & Butz 1998). The response is reactive and certainly not creative (Kim & Mauborgne 1999). The Finnish company believes that domestic products and a reliable brand satisfy the needs of consumers (Goodstein & Butz 1998). The Italian company relies on an image of a company that has willingness and skills to manufacture good meat products. In both cases, brand image is built on the taste perceptions of consumers, and innovative aspects are mostly related to new tastes, traceability, security, and functionality (Kim & Mauborgne 1999). Both companies base their business on meat products that consumers want and value, the basic requirements for products are reliability, safety and the coherence of production methods. A restriction to environmental measures is that they must be coherent with the industrial type production. This excludes the building of environmental image that misrepresents the identity of a company as an industrial producer.

The companies want their environmental images to be based on facts, which can be communicated by measurable indicators and environmental management system (cf. Scott & Lane 2000). They do not try to “greenwash” their actions and build their image with the help of “*environmental rhetoric*”. They abide by the substance because they emphasize the integrity of activities. Environmental ethics represent a moderate, long-term approach to environmental issues. The importance of profit is not hidden behind rhetoric (cf. Shrivastava 1994; Welford 1995).

The Finnish company wants to connect four characteristics to its brand name: domestic origins, good taste, safety and nearness of the company. It perceives that each of these characteristics contains implicitly a guarantee of environmental responsibility. The findings suggest that environmental responsibility is defined loosely and indirectly in Finnish society, associating Finnishness with good environmental management. The Italian company connects environmental management indirectly to the traceability of products and to transparency (Whetten et al. 1992; Gioia & Thomas 1996; Dowling 1993; Gioia, Schultz & Corley 2000).

The companies connect environmental responsibility to brand image indirectly. The basic characteristics of brand are given an environmental loading. Environmental management is expected to reinforce the image of reliable and safe products. Its aim is not to misrepresent corporate identity, but to support organizational strengths.

It is clear that environmental responsibility is not a core characteristic of corporate and brand image, but it is likewise evident that environmental management is fundamental to the protection of good reputation. It can contribute to the image of safe and reliable products, but it can, above all, guarantee that negligence or malpractices do not spoil the reputation (Fombrun 1996). Regulatory compliance and attention to issues that draw particular social or institutional interest are the means for maintaining a good reputation. According to the responses, food companies are equally vulnerable to damage, caused by unique negative events or by continuous malpractices: if such issues attract public attention, they can turn consumers against a company, and have a disastrous effect on sales. The reputation of a company can also suffer from a scandal that hits its suppliers.

It is vital that a company maintains a good reputation because otherwise its image could be seriously damaged. Regulatory compliance and attention to issues that draw social interest protect companies from scandals relative to environmental negligence.

Environmental management must be continuous and coherent to be credible. In fact, discontinuous management might seem suspicious and evoke mistrust, attracting, again, negative attention and spoiling the image. Environment is perceived as a risk if it is neglected, even if it is a question of a unique event. Consumers are sensitive to the image that food products create, and the negative publicity that involves a company or its partners can impress them. Companies have to take the effect of a negative episode in one link of supply chain into account. Environmental management is, thus, brand protection, and companies cannot risk spoiling their name.

A credible environmental management is continuous and coherent. Discontinuity would be a sign of questionable commitment.

The conclusions drawn from the findings concerning ethical and profit-oriented motives are represented in an outline of the main points (fig. 7.4 on the next page).

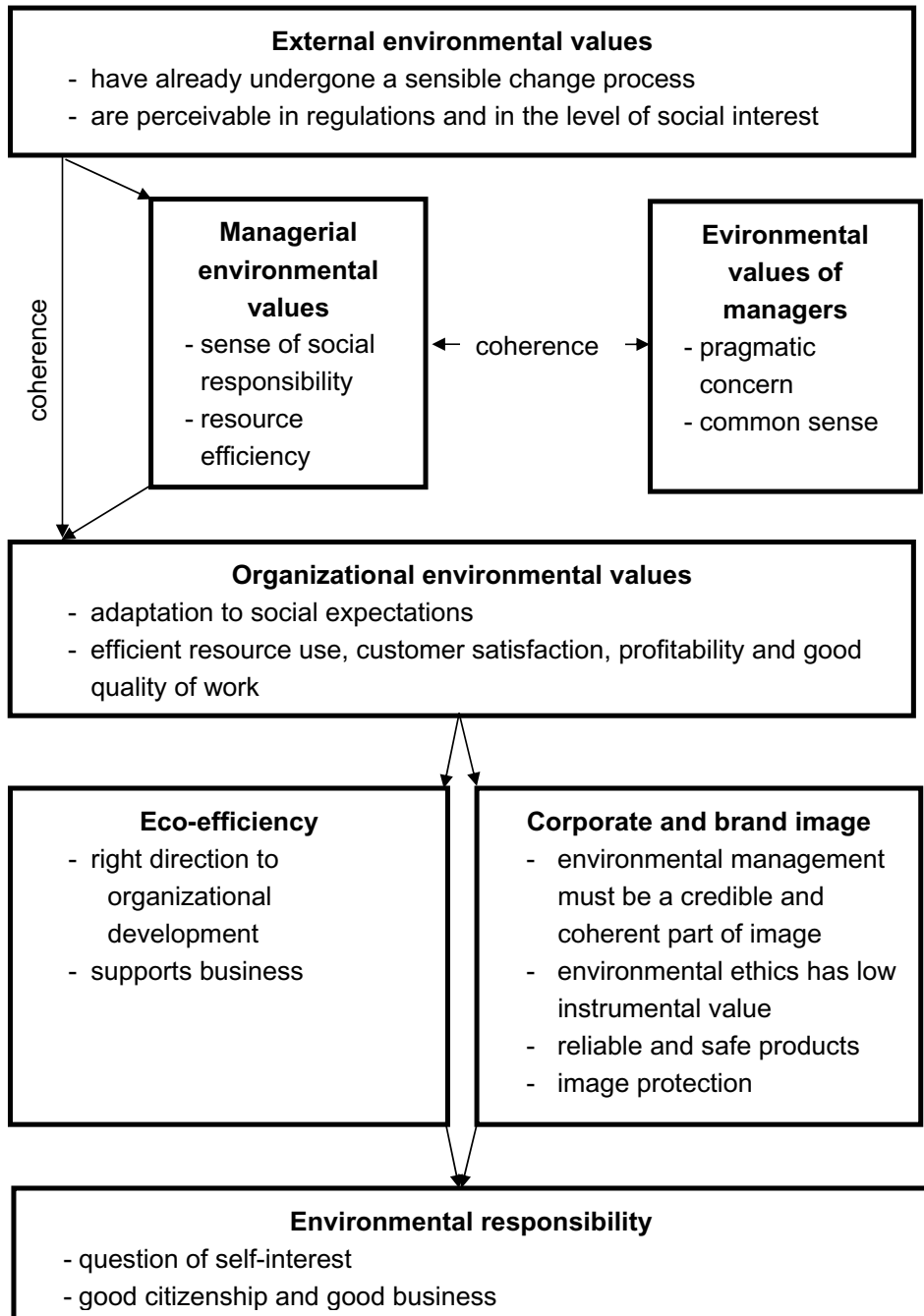


Figure 7.4: Emerged influence of ethical and profit-oriented motives

7.4 Actions

The *environmental commitment* of the case companies is examined as a question of strategic importance and organizational involvement. The respondents evaluated *the strategic importance of environmental management* with different criteria and came to different results. One part of the respondents perceived that an environmental dimension is implicitly included in organizational values and objectives, this makes it a strategic issue. Other arguments for its strategic importance are the importance as a factor that evokes trust, and the allocation of human resources to maintain and improve environmental activities. In brief, the respondents regarded environmental management as a strategic issue, and approached the question from cultural point of view. They sustained that environmental management had been a strategically important process of cultural growth inside organizations. The respondents who argued against the strategic importance focused on the general nature of the food sector, and perceived that there was no significant problem. They did not approach environmental management as a cultural question, but evaluated the quantity of organizational resources that it absorbs, and the relative gravity of environmental harms caused by food companies.

The connection of the environmental management of the case companies to a conceptual definition of strategy argues for a non-strategic approach. Environmental management influences organizational development through regulations, customer needs and cost efficiency. It does not guide, but it only supports, the chosen course of action, facilitating the pursuit of the existing profit focused strategy. Though it is implicitly considered in conventional organizational values and objectives, it is not a primary criterion for the design of infrastructures and the creation of new products. Customer needs do not drive effective environmental improvements, but the implementation of a systematic and accredited operational management tool. Companies are careful not to take actions that would be disapproved of and, consequently, spoil their reputation. Regulatory compliance obliges to adapt processes at operational level. It is, substantially, enough to guarantee the desired legitimizing effect. Cost efficient actions save resources, and can, thus, be presented also as environmental improvements. However, environmental benefit is secondary to economic benefit. Environmental management matches organizational activities to the expectations of the external environment, but the adaptation takes place at operational level. It is organizational effectiveness at present, it is not about growth and development that seeks creative solutions. The corporate environmental plan (program) is implementable and measurable rather than visionary, conceptual and directional (cf. Goodstein & Butz 1998; Johnson & Scholes

1989; Mintzberg 1994). The integration of environmental management has been tightly bound to earlier strategic decisions and to their implementation.

The responses that argued against the strategic importance of environmental management highlighted the relatively low environmental impact of the food sector. The respondents are somewhat eager to cite industrial sectors that have a long record of environmental problems. One conclusion that can be drawn is that managers advocating the adoption of ecological practices need clear evidence of the existence of a problem.

Environmental management is not a strategic issue, but environmental aspects set operational limits and demand operative attention. The impact of the food sector is relatively low.

The respondents that argued for a strategic importance of environmental management saw it as a global way of doing. Attention to aspects that draw institutional interest undoubtedly characterizes both case companies, but it necessitates operational and not strategic plans. Ecological principles have not made companies reconsider the usefulness of their existence. The way of doing is based on good citizenship and continuous profitability (cf. Mintzberg 1994).

According to the responses, a pragmatic environmentalism fits well the way of doing, i.e. the strategic perspective, based on the following values: customer focus, profitability, cost efficiency, continual improvement and professionalism (cf. Mintzberg 1994). Environmental values are interlinked to formal values. Compliance with regulations and a parsimonious use of costly resources are operational rules for the implementation of strategy.

A market-based consideration of strategy as position indicates that environmental management has not changed the market position of the case companies (Porter 1985). The quality of products is based on other criteria, like the quality of raw materials, and advanced process and organizational skills. Both companies try to increase the trust of consumers. Though the environmental quality of products is not a primary differentiating factor, the respondents perceived it as a latent guaranty of quality and safety.

Environmental regulations and the positive effect of environmental improvements on operational efficiency integrate environmental management in organizational activities at operational level.

A plausible problem that could make environmental management a strategic question could be the physical scarcity of an indispensable natural resource, like water. A problem draws strategic attention if it is urgent, and threatens the continuity of activities. Water scarcity was seen as a real imminent risk, which needs preventive measures (cf. Starik & Rands 1995; DesJardins 1998).

The scarcity of a natural resource that is indispensable for production processes could raise the status of environmental management from operational to strategic.

In the Finnish case company, the introduction of a standardized environmental management system changed production practices in order to eliminate operational inefficiencies. The Italian company predicted a similar effect on corporate activities. Both companies sustained that the improvement of environmental performance was a long-term objective that must not contrast profitability and growth. They do not allocate resources to voluntary improvements that do not contemporarily generate business benefit. Environmental considerations justify the limitation of the economic exploitation of natural resources, but these limits can be justified by economic rationality, i.e. long-term profitability and the quality of products (cf. Chandler 1962).

In the Finnish company, the implicit integration of environmental considerations in the values and objectives of a big industrial meat processing company was one result of organizational reform. The aim was to revitalize the company. Environmental considerations are integrated in organizational core values and objectives so that they fit existing organizational reality. A certified system makes sense because it is a way to improve resource use. The Italian company had not hurried the effective implementation of a certified management system because there was no effective pressure to take the initiative. It sustained that its activities already met the requirements for a certification. Therefore, the effect of a systematic environmental management would be gradual, based on continual improvement (Gersich 1991; Greiner 1972).

Both companies identified a managerial problem and adopted or intended to adopt a set of practices within the framework of a standardized management system. Environmental management is integrated in the operations by interlinking it to profit and hygiene goals. It is strictly connected to the organization's past experiences: a precondition is that it takes organizational history into account (Berg 1985). Radical operational changes are in both companies justified by regulatory compliance or cost efficiency. In the Finnish company, operational changes had been initially radical and subsequently incremental, but they have not contained, at any stage, risk of any mention because they have not changed strategic perspective or position. A similar approach characterizes also the Italian company (Santalainen 1991). The Finnish company perceives that, at the time of the decision, the implementation of a certified system was a proactive choice. The Italian company, being a medium size company, is more inclined to follow the example of leading companies. A standardized environmental management system represents in both cases a ready tool to be adapted to organizational realities. It was designed to be a flexible tool for industries and companies, though its implementation may be

relatively less burdensome to big companies (cf. Czarniawska & Joerges 1996; Strannegård 2000). The findings suggest that environmental management will not change significantly after the implementation of a standardized system. The standardized approach is likely to diffuse among meat processing companies and agricultural producers, though the development may take time.

The environmental management of both companies is based on objectives that aim to improve the efficiency and the quality of organizational activities. According to the responses, the commitment to a process of deliberate organizational development is a prerequisite for thriving. The Finnish company identified critical environmental aspects and designed a program in order to improve its performance. It does not have an environmental strategy, but an operational plan to achieve measurable goals (cf. Dion 1998). The company makes only compliance-driven environmental investments. Conventional investment decisions (like the new logistics center) are based on economic criteria: they must contribute to the improvement of the bottom line. The company sustains, nonetheless, that economic efficiency directs environmental performance in the right direction. The approach of the Italian company to environmental investments is similar (cf. Larsson 2002). According to the case companies, the willingness and capacity to use updated technologies guarantee environmental efficiency. Environmental management needs to be developed like all organizational activities. The risk that environmental actions become routine is real because the focus on eco-efficiency limits innovative responses, and acknowledges only value creation based on environmental costs. Proactive strategic environmental initiatives are missing because ecological problems and their resolution are seen as complicated, and because the food sector is not the worst threat to environment (cf. Ashford 1993; Starik & Rands 1995; DesJardins 1998; Shrivastava 1995; Schaefer & Harvey 1998).

Environmental management has been translated in an institutionalized form, it supports strategic values and objectives. Cost effective thinking marginalizes its development at operational level.

Environmental management is connected to business activities. The advantage is that it is concrete rather than verbal. The drawback is the lack of creative, transversal development work.

Cost efficient thinking is deeply rooted in the organizations. Rationalization stimulates environmental change.

Managerial and organizational involvement focuses on the implementation of the environmental management system. In the Finnish company, organizational involvement had already been established, while the Italian company still planned the organizational adaptation. In the Finnish company, top management had actively participated to the establishing of the principles by which environmental management should function at operational level. The

Italian company sought expert resources from external experts. A top-down implementation of the system was seen as being a suitable method for the introduction of environmental management in both organizations (cf. Santalainen 1991; Chakravarthy & White 2002). According to the Finnish company, the difficulties that have been encountered are a normal aspect in the implementation of any new idea. Difficulties were found when replacing wrong habits, though new principles were accepted (Tienari & Tainio 1999).

The companies perceive that an environmental responsibility that fulfils social expectations is, in the long term, an integrated part of organizational identity (Albert & Whetten 1985; Alvesson & Berg 1992; Gioia, Schultz & Corley 2000). There was no need to question organizational history or to reconsider the future development of the whole business: the way of seeing and being was perceived as being coherent with external expectations and internal sense of responsibility (Brown & Starkey 2000; Ashford & McDonough 1999; Gioia, Schultz & Corley 2000).

Top management defines the shape of environmental management.

Eco-efficiency-driven development fits organizational identity.

In the Finnish company, environmental management is integrated in line management, it is not confined to a separate structure. The Vice CEO is formally responsible for environmental management. Technical service maintains environmental practices and develops environmental goals and indicators for their measurement. Top Management Team approves goals. The management has no special environmental training. The Italian company is oriented to adopt a similar approach. Environmental management will concern, first and foremost, production and technical service, and eventually marketing. In the Finnish company, the Top Management Team takes environmental decisions, while technical service maintains and develops operative processes. Environmental management is considered as being a factor of eco-efficiency in the production processes and in logistics. Consequently, the managers of other functional areas (especially sales) felt that there was no need for their personal initiative. Environmental management concerns, almost exclusively, technical service (cf. Ulhoi, Madsen & Hildebrandt 1996; Catusò & Lundgren 1999; Starik & Rands 1995).

The perception of environmental issues as being technical questions reduces the interest of managers with different specialization.

The management was satisfied with the work of the technical service, and hoped that it would keep alive the discussion on environmental issues in the organization. However, most managers perceived that environmental considerations affect their work because a great part of conventional organizational performance and development can be, somehow, justified by opportunely fitted environmental arguments. To make them clear and concrete, the com-

pany uses mainly economic language to represent environmental issues (cf. Cordano & Frieze 2000; Shelton 1994).

Normal economic activities can, in many cases, be translated into opportunely adapted environmental language.

A shortcoming of the current system is the lack of transversal discussion on environmental issues, a possible cause for missing collective initiatives. Information is available, but it is not used systematically to develop transversal solutions. Technical service has to develop environmental management, but the rest of the organization is not necessarily involved. The responses show that both companies consider mutual trust between organizational functions an important factor. It was suggested that environmental training of employees could be improved by allocating human resources to this purpose. On the other hand, environmental issues were seen as being managerial problems, their decisions ask for managerial capacity rather than operational capacities.

The findings suggest that the employees of the Finnish company are aware of correct operational practices. Wrong practices and wasteful consumption are the most important areas of intervention, and have caused sensible operational changes in the early stages of systematic environmental management. Technical service takes care of composting, heat central management, solid waste and wastewater management. The Italian company intends to approach systematically both the sorting of waste and the consumption of resources, especially water. In both companies, the development of environmental management consists of improving resource management, but there are no plans to extend it to a more radical management of human resources.

The focus is on resource management. A management of human resources would demand internal creativity, but there are no guarantees of success.

In the Finnish company, environmental improvements are not related to individual goals of organizational members. Both companies sustained that employees were involved in environmental improvements by rules of behavior that enhanced responsible behavior. The Italian company pointed out that such norms were a part of good manufacturing norms. The Finnish company rewards economically beneficial environmental initiatives with a conventional reward system. The respondents claimed that numerous environmental initiatives proved the interest of employees. The Italian company does not intend to tie environmental improvements to the individual goals of employees (Lothe, Myrtveit & Trapani 1999).

Corporate environmental management is based on operative plans. Employees are involved in the correct development of performance by operational norms of behavior.

The *environmental behavior* of the two case companies is driven by similar motives, and takes, or is going to take, similar forms. Both companies have taken some *unilateral measures*, which are classified in *environmental management tools*, *communication tools*, and *clean technical and technological measures*. Unilateral measures focus on transforming business processes in order to produce meat products more efficiently. These processes are documented for control and communication purposes.

The range of activities of the Finnish company is wider, thanks to an early adoption of a certified environmental management system, driven, plausibly, by the size and consequent complexity of activities, and by the accountability of its performance to shareholders. The Finnish company uses the following environmental management tools: environmental accounting, indicators, management system and audit. The Italian company intends to implement a certified environmental management system, and use indicators and audits within this framework. It has started to identify points in which the consumption of resources could be rationalized.

The Finnish company uses environmental accounting to produce both internal and external information. It is, thus, a management accounting and a financial accounting tool. Environmental accounting assists the internal control of performance and eco-efficiency. The task of environmental management accounting is to support conventional decision-making. Environmental costs, investments and the development of main indicators are briefly communicated to interested external parties, in a one page illustration included in the corporate annual report. External communication is very summary and shows clearly the principles of regulatory compliance and eco-efficiency. Environmental financial accounting is a brief add-on to conventional financial accounting, which assures the interested external parties that the company operates within legality, and does not neglect efficient waste and energy management. Environmental information is presented in numeric form, but it is not commented or explained. Therefore it may be difficult to draw broader conclusions from the information that these indicators provide.

The Italian company saw environmental financial accounting as a possible way to communicate the results of environmental management – including the effect of any particular event – to the owners.

The respondents found environmental accounting as a useful management tool for internal control (environmental management accounting) and external communication (environmental financial accounting) purposes because it helps to control production costs and taxes.

Environmental accounting is a suitable tool for the control and communication of process efficiency-based environmental performance.

Environmental benchmarking was practically neglected by both case companies: they have not established a systematic process of comparison of organizational, functional or process performance with excellent cases. The Finnish company wanted to have original marketing ideas, and therefore it did not take other companies as models. This may be a valid rule for marketing initiatives, but it does not exclude the “*translation*” of other valid initiatives, identified within or outside the sector, in the organization. The value of benchmarking is plausibly diminished by the attitude to perceive environment as a cost factor and not as a source of competitive advantage, by the preference of compliance-driven or collectively designed sector-wide solutions, and by the aversion to risk in environmental decision-making.

The findings suggest that indicators are fundamental tools for the management of critical environmental aspects, which in turn must be measurable to be considered. When the management refers to the development of environmental management, it usually intends the development of more accurate indicators. Physical and environmental impact indicators produce information that interests companies and controlling authorities. Their motives are clear: improvement of resource management and regulatory compliance.

Clear goals can be defined for the use of physical and environmental impact indicators. The diffusion of consumption monitoring and the improvement of the accuracy of measurments are core areas of environmental development.

The Finnish company applies an advanced set of indicators developed inside and outside the company. It uses mainly physical indicators and some impact indicators (e.g. the oxygen consumption of wastewater). Technical service has the task of developing or selecting (from external sources) indicators used in processes. They can be developed to carry out more detailed measurements, setting goals to ever smaller organizational units (e.g. departments instead of production site). Another way to develop environmental measurement is to shorten the measurement period. The company intends to use even more detailed measurements to make environmental issues more practical for employees. It believes that more specific goals and relative measurements increase the capacity to support business activities. Physical and impact indicators are used as internal management tools. A failure does not necessarily mean that the performance has been poorer than expected, and needs corrective measures, but the result may be explained with business motives, like an unpredictable change of demand, or a reorganization of internal activities (like the new logistics center). Determined indicators must be communicated to authorities. The voluntary communication of indicators to other stakeholders was perceived as being somewhat complicated because the recipient may not be able of interpreting the information correctly. The Italian company intends

to improve its environmental performance by reducing the consumption of electricity and water. It, thus, seems that indicators will focus on production processes.

The Finnish company has adopted the ISO 14001 system, which can be seen, per se, as a business/management indicator (Tyteca et al. 2002). It offers a systematic framework for environmental management, and extends the previously adopted quality system. The system approach has guided the identification of critical environmental aspects, the setting of objectives and measurable goals. In other words, it has simplified environmental decision-making. Though the Italian company just intends to implement a system certified to ISO 14001 standard, its approach is similar to the Finnish company's approach. Its expectations are based on the experience of systematic quality management (Welford 2002; Dobers 1996). The findings suggest that a certified system simplifies the relationships with customers, thanks to its mere existence, because it proves that something concrete has been done. ISO 14001 was regarded as a suitable management tool because it makes environmental management systematic and rigorous, and gives it credibility by an audit system. The findings also suggest that management system is a rational approach to environmental issues, which are often contemporarily economic questions. Even if the management of the Finnish company was satisfied with the ISO 14001 system, it recognized some shortcomings: it does not guarantee creative solutions or stimulate new initiatives. The Italian company emphasized the value of the system as a tool to improve performance and skills (Dobers 1996). According to the responses, environmental management develops only when there is managerial interest. A perceived danger is that within the standardized framework, environmental management becomes routine, where maintaining the system prevails over developing it (Purser, Park & Montuori 1995; Garrod & Chadwick 1996; Boiral & Sala 1998). In fact, the results show that a standardized environmental management system gives a systematic and socially accepted framework for environmental management. It is not able to drive a dynamic, spiral shape improvement process throughout the whole organization, but only issue-contingent improvements of resource management. Goals are set on the basis of legislative restrictions and the identification of operational inefficiencies.

The strength of the standardized approach is the systematization of environmental management. The weakness is the inability to stimulate spiral shape organizational improvement process.

The Finnish company uses, and the Italian company intends to use, audit as a control tool. In fact, it is an essential part of certified management system. Accredited environmental verifiers validate the environmental approach. Inspection visits have not, however, become an important marketing tool.

Audit is a formal control tool, used periodically. Auditing is strictly tied to the achievement of measurable goals that are monitored with the help of indicators. Internal audits are used to guarantee that environmental management supports business. The Finnish company has made some efforts to improve the established system on the basis of internal and external audits. Both companies also use auditing to monitor the performance of suppliers if they have agreed to a code of conduct.

Internal audits control the achievement of measurable goals. External audits are a prerequisite for certification and credibility.

The findings suggest that environmental management is strongly based on issue-contingent indicators of eco-efficiency. The missing interest in lifecycle assessments can be explained by the reluctance to deeply reconsider products and activities. This kind of assessment would imply more managerial work, and more radical changes (cf. Garrod & Chadwick 1996).

The main *environmental communication tool* of the Finnish company is environmental report. The company does not have a formal environmental statement, but it defines its approach emphasizing on regulatory compliance and continuous improvement of productivity, profitability and environmental performance. The definition of the Italian company is even more vague and cliché-ridden. The findings suggest that statements are vague because there is no clear strategic vision and purpose in environmental management.

Environmental statement is not used to communicate efficiency-based approach. Statements focus on regulatory compliance.

The Finnish company has published two annual environmental reports (2000, 2001) that synthesize the critical aspects and the development of performance⁷⁶. The reports contain mainly quantitative data integrated by some qualitative information. The latest environmental report is available at the Internet web site to any interested reader. The tone of the report is neutral, and does not suit any of the four styles proposed by Hanson et al. (2001). The report provides factual information about environmental goals and their achievement, seasoned with few rhetoric references to environmental aspects that the company really does not consider very important, but considers worth mentioning (like the marginal production of organic foods that is presented as a manifestation of sustainability). The Italian company was not interested in reporting, plausibly because it does not need it to communicate with owners, and because it does not perceive a need to communicate with other stakeholders. A report could be, however, useful in relationships with authorities and external experts because it could synthesize the achievement of goals.

⁷⁶ Cf. Global reporting initiative (GRI) and ISO 14063 on environmental communication guidelines.

The Finnish company has integrated a brief one page illustration of its environmental management in its annual report, focusing on cost effects. The illustration contains the development of the main environmental indicators (during the period of five years in the report relative to 2001, and of the previous year in the report relative to 2002), and the main quantities of environmental financial accounting (2002). Environmental communication is based on indicators, which give continuous, accurate and technically verifiable information. The contents of reports reflect the idea that there is no real need to increase the external acceptability of corporate activities.

Environmental report synthesizes quantitative environmental goals and their achievement. The external interest in reports is moderate.

Both case companies are scarcely interested in market-oriented environmental communication because they perceive that consumers do not expect or even appreciate it. For the same reason, eco-labels would not foster the sales of products. Eco-labels typically contain references to certifications, or simply guarantee that products are GMO-free, or that farm animals have been fed exclusively with vegetal feeds, etc. There are also some examples of marketing in collaboration with environmental groups, which give their name to guarantee e.g. the feeding and the natural growing rhythms of farm animals. Eco-labels are tightly connected to food safety issues.

The findings suggest that market-oriented environmental communication is limited to some practical instructions for the disposal of packages. Green marketing efforts are limited because of the scarce interest of consumers, and a consequent lack of economic return. Moreover, not all consumers want to know how food has been produced, which makes it complicated to decide what information should be provided, and how the message should be formulated. Environmental quality is an implicit character of products, and, consequently, it is also implicitly integrated in arguments that are used in their marketing. Consumers can view green marketing initiatives with suspicion, and react negatively. Data produced by currently used environmental indicators was perceived as too technical for market-oriented communication. The Finnish company did not exclude the possibility of using environmental management in the development of exports, but saw that the idea was not of immediate interest. Since it prefers sector-wide solutions, it might prefer collective initiatives also in this field. The Italian company saw that environmental marketing could become meaningful in business to business relationships, and proposed the sharing of resources between food companies and retail trade to approach consumers.

Eco-labels do not bear a value as communication tools because consumers are not enthusiastic about them. Green marketing is not economically justifiable and its effects risk being undesired.

Clean technical and technological measures are driven by regulatory compliance or economic rationality, according to the logic of making more from less. Waste disposal and the treatment of risk materials are important compliance-driven areas of intervention. They are end of pipe technologies, which aim at mitigating the negative impact of waste. Environmental efficiency was interpreted in terms of modern technologies: they are the best solutions also from the environmental point of view. Both companies are favorable to process automation because it would decrease the use of water for washing. Automation would generate interlinked cost, hygiene and environmental benefits.

The most important environmental achievements of the Finnish company are relative to cleaner technologies, and to the replacement and transformation of inefficient production practices. They are: heat recovery, waste management (including composting) and sorting. Heat recovery was initially merely a cost-driven activity, which value as an eco-efficient measure has come later. Waste management, too, is driven beyond compliance by economic efficiency because waste disposal costs are high and relative to quantities produced.

The production volumes of the Italian company do not allow easy investments in new process technologies. The company believed that environmentally friendly technological innovations would concern energy sources rather than process technologies.

The results show that the sorting of waste is perceived as being a central technique of environmental management. In the Finnish company, it has changed sensibly earlier operative practices. The Italian company sustained that an objective should be to sort and recycle as much material as possible. Product security limits the choice of recyclable package materials.

New technologies push to the improvement of environmental performance. Replacing and transforming inefficient practices contribute to lowering production input and waste disposal costs.

The *environmental behavior* consisting of *multilateral measures*, further classified in *collaborative relationships* and *acceptability-oriented measures*, had similar preconditions, but different forms in the two case companies.

The findings suggest that collaborative relationships are valid if they generate shared economic benefits to interested parties. The limited knowledge of environmental questions has made the Finnish company buy external consulting services. Since expert consulting has its cost, it must be economically justified (Pfeffer & Salancik 1978; cf. Hartman, Hofman & Stafford 1999; Alter & Hage 1993). The company also seeks to improve its limited knowledge by participating in environmental projects promoted by industry associations. The meetings of associations are suitable for a joint resolution of common problems, like the environmental impact of packages. The company also sits in environmental committees, where it has the possibility of expressing its

opinion on environmental issues. Committees can e.g. establish policy dialogues. The Italian company has acquired external consulting services through public financing. It was interested in knowledge-based collaborative relationships to external experts like research centers, service companies, industry associations and external consultants (cf. Banerjee 1998; Clarke & Roome 1999; Miller & Szekely 1995; Roome 2001).

The complexity of environmental aspects makes companies favorable to expert assistance in problem solving. A joint problem solving within an expert group decreases uncertainty.

The case companies do not, at the moment, seek environmental partners, but the logic of eco-efficiency allows the interpretation of economic collaboration as being also environmental. They e.g. demand compliance with regulations, and impose codes of conduct to meat suppliers in order to guarantee that products meet regulatory, market quality and safety requirements. The implementation of the codes of conduct implies from farmers the provision of knowledge on adequate farming practices, and the documentation of activities.

The Finnish company sets standards that meat producers must meet, and ties the contract price of products to qualitative guarantees. The Italian company has also developed a code of conduct to regulate the supply chain of products. It perceives that being a medium size customer, it does not have power to impose codes of conduct to its conventional suppliers. Codes of conduct are used to reinforce competitive assets. A similar effect would be produced by a certified environmental management system, which would simplify the relationship, from the point of view of the case companies (Hartman, Hofman & Stafford 1999; Alter & Hage 1993).

Codes of conduct set standards to raw materials. They limit the use of intensive farming methods and regulate the price on the basis of quality.

The Finnish company collaborates with competitors in order to increase the eco-efficiency of waste management (the treatment of risk materials). Competitors are key environmental stakeholders because by joining their processes, companies can reach a higher level of cost efficiency, and reduce the environmental impact. Collective solutions are adopted in transport and waste management. Joint solutions are based on sharing resources.

The Finnish company participates in a collaborative meat product distribution that increases the eco-efficiency and the functionality of the whole system. The system consists of circulating distribution cases and a collective coordination of transports (cf. Stead & Stead 2000; Hartman, Hofman & Stafford 1999; Alter & Hage 1993; Dobers 1996). The company develops business together with trade. The commitment to improvement is not ideological as the acceptance of compromise to satisfy the needs of important customers shows.

In the last-mentioned case, environmental collaboration is hampered by the lack of shared benefits.

Collaborative relationships are based on the sharing of resources. Optimized resource use mitigates environmental impact. Joint processes with competitors are adopted to improve eco-efficiency.

The case companies did not have voluntary environmental collaboration with local actors. The Italian company excluded explicitly this possibility for cultural reasons. It was skeptical of the success of efforts to improve the environmental performance of transportation because the service providers are small and plausibly unable to invest in eco-efficient equipment.

The companies are attentive of the *acceptability* of their activities in two ways: assuring regulatory compliance and adapting to the market demand. The findings suggest that environmental management has a positive effect on the acceptability of activities. The companies are disposed to give environmental information: their attitude is reactive, not proactive.

Environmental management contributes to the acceptability of activities. Powerful stakeholders influence on its development.

The relationship of the Finnish company to authorities is based on the facilitation of control, and on the enhancement of feasible solutions. The company is favorable to dialogues for two reasons. First, authorities are external sources of environmental expertise, which can provide new knowledge and skills. Second, a dialogue can extend the knowledge of regulative bodies of productive realities, and improve the feasibility of regulations.

A dialogue with authorities is constructive and important to prevent conflicts.

The relationship of the Finnish company to trade is regulated by contracts that include general environmental requirements. The company develops products according to the preferences of consumers, the accent is on domestic origins, taste and functionality. Customers regard environmental certification as insurance rather than as a differentiating factor. The approach of the Italian company is similar, though the relationships are less developed for two reasons; first, the relationship with authorities focuses on control and not on development; second, customers do not yet demand voluntary guarantees.

Environmental certification is a visiting card to key customers.

The results show that consumers implicitly appreciate environmental responsibility according to prevailing social values. This relationship is static: consumers do not show increasing interest and the companies do not take proactive measures.

Consumers are satisfied with the implicit environmental quality of products.

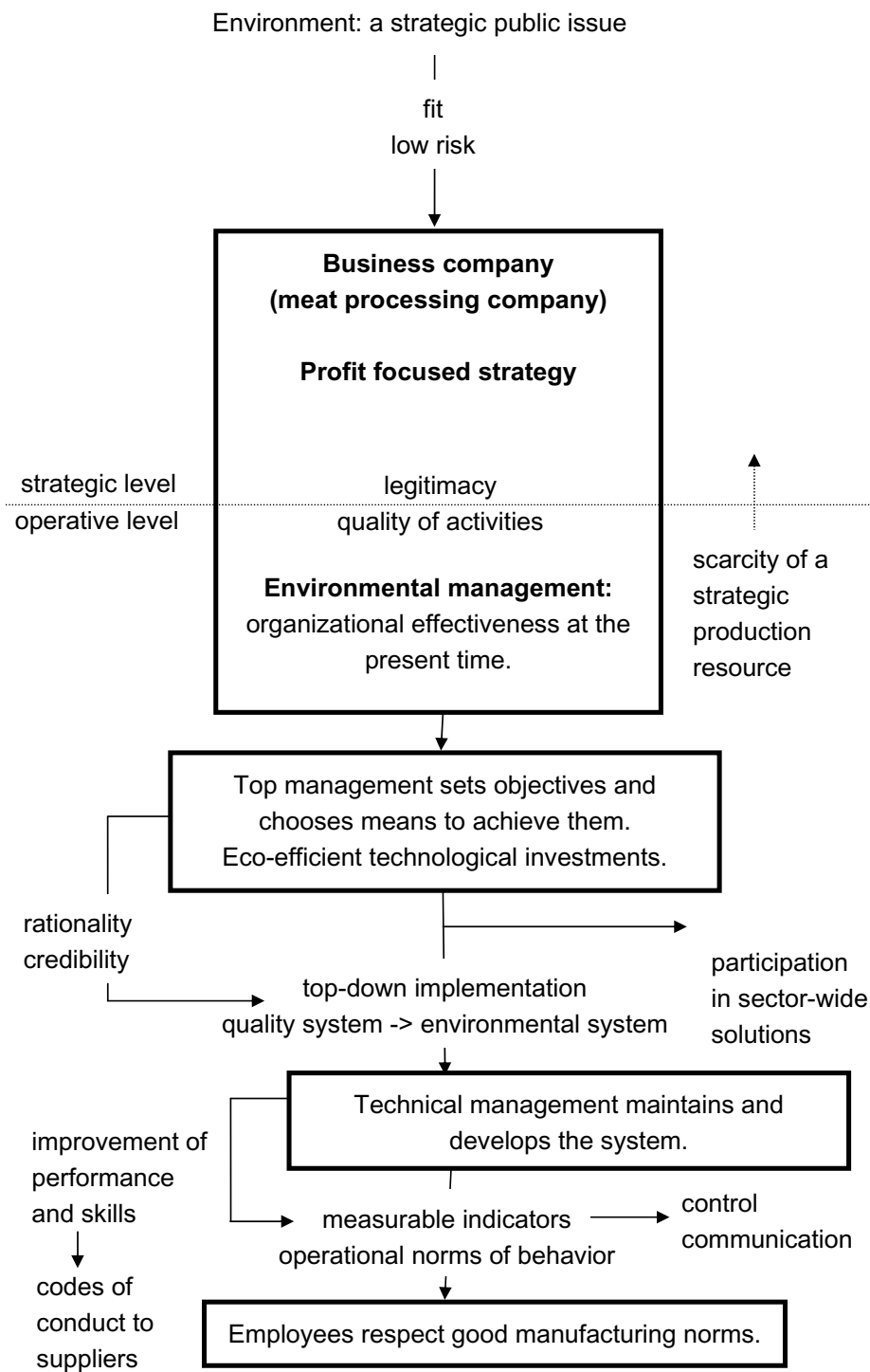


Figure 7.5: Emerged implementation of actions

The conclusions drawn from the findings concerning environmental actions are represented in an outline of the main points (fig. 7.5 on the previous page).

7.5 Supply chain

7.5.1 Retail trade

Both retail trade companies under investigation base their environmental approaches on regulatory compliance, supporting prevalingly a *public vision* of the *key agents of environmental change in society* (cf. Midtun 2002; Ulhoi, Madsen & Hildebrandt 1996). They agree on the importance of efficient regulatory framework and consultation of the interested companies. They also regard themselves as proactive companies because they promote uniform practices that in some cases exceed compliance. The findings support the earlier conclusion, companies pay extra attention to issues that draw institutional and social interest (cf. Shrivastava 1995; Welford 2002; Hart 2001).

The regulatory framework developed by the European Union confirms its validity as being a *change force* for environmental behavior (cf. Madsen & Ulhoi 2001; Stead & Stead 2000). Both companies pay attention to issues that draw regulatory interest or affect consumers' choices (Escoubès 1999; cf. Pfeffer & Salancik 1978; Hannan & Freeman 1977). Institutional forces seem to direct their responsiveness and managerial attitudes: coercive forces come from regulative bodies, and normative forces from market. Social legitimacy drives institutionalization (Hatch 1997; Powell & DiMaggio 1991; Wade-Benzoni et al. 2002; Heiskanen 2000). Managers embrace institutionalized ideas to adapt companies to changing business environment (Chandler 1962; Brown & Starkey 2000; Fannin & Rodriques 1986; Gilbert, Hartman, Mauriel & Freeman 1988; Mintzberg 1983).

The findings suggest that both companies *motivate* their environmental approaches with social acceptability and economic rationality (Caselli 1998). Environmental responsiveness supports profitability because business is conducted in a socially responsible way. An institutionalized perception of environmental responsibility has spread among organizational decision-makers (cf. Wehrmeyer 1995; Peterson 1999; Ott 1989; Lawless & Finch 1989). This approach supports long-term organizational thriving term. An institutionalized idea of the coupling of economic and environmental benefit by the logic of eco-efficiency is well accepted (Purser, Park & Montuori 1995; Gladwin, Kennely & Krause 1995; Crane 2000; Fineman 1996; 1997; 1998; Iyer 1999;

Porter & Van Der Linde 1995; Hart 1995; Miller & Szekely 1995; Gillespie 1992). An institutionalized approach to social responsibility contributes to good reputation (Fombrun 1996).

Both retail trade companies base their *actions* on an environmental program. The Finnish retail trade company has an environmental certificate, and the Italian meat processing company under investigation, believed that Coop was among the first Italian retail trade companies about to attain an environmental certificate. Both companies establish standards for their suppliers (compliance-driven package standards⁷⁷ and production method standards). Joint development programs between industry and trade enhance a uniform development of the whole supply chain (cf. Stead & Stead). The results show that retail trade companies make their suppliers understand that a certain (standardized) level of environmental responsibility is desirable. An important limit to external demand is the internal level of environmental performance, as the Finnish retail trade company pointed out.

The conclusions drawn from the findings concerning retail trade are represented in an outline of the main points (fig. 7.6).

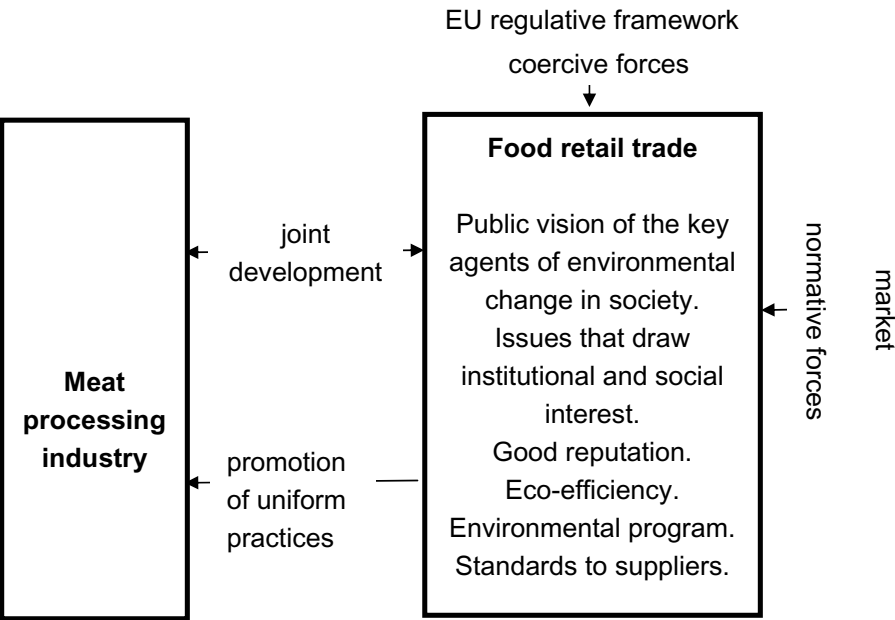


Figure 7.6: Approach of retail trade

⁷⁷ See Council Directive 94/62/EC on packaging and packaging waste.

7.5.2 Suppliers

Both suppliers shared a *public vision* of the *key agents of environmental change in society* (cf. Midtun 2002; Ulhoi, Madsen & Hildebrandt 1996). They agreed on the importance of minimum standards set by regulations. A plausible reason is the threat of competitive disadvantage to producers that internalize environmental costs. This disadvantage would have repercussions also on the food industry, as the Confederation of the Food and Drink Industry of the European Union (CIAA) has pointed out⁷⁸:

“The different functions of the agricultural sector, such as preserving landscape, protecting the environment and maintaining a socio-economic network should not lead to underrating the economic role of agricultural production. Other objectives, such as animal welfare, will require the establishment of appropriate criteria and standards by which they can be evaluated. If these important topics are not addressed adequately at international level, they could finally result in a competitive disadvantage for food processing sectors”.

The findings further suggest that public institutions can carry out a wide range of initiatives so as to involve social actors in environmental preservation, like giving correct information, establishing adequate structures, providing incentives and organizing a control system. The findings also support the importance of self-regulation, driven by interest and willingness, to the diffusion of environmentally friendly practices (cf. Iyer 1999).

Both suppliers sustain that voluntary choice is a key *change force* for environmental behavior. These responses can be interpreted in the framework of institutionalized ideas on good environmental management, and the willingness of agricultural entrepreneurs to reach socially acceptable standards. Coercive institutional forces come from regulative bodies, and normative forces from market. The findings, thus, confirm again that social legitimacy drives environmental responsiveness (Hatch 1997; Powell & DiMaggio 1991; Wade-Benzoni et al. 2002; Heiskanen 2000). Managers embrace institutionalized ideas so as to adapt companies to changing business environment, but their attitude to organizational development makes a difference (Chandler 1962; Brown & Starkey 2000; Fannin & Rodrigues 1986; Gilbert, Hartman, Mauriel & Freeman 1988; Mintzberg 1983).

The findings suggest that both suppliers *motivate* their environmental approaches with social acceptability, which corresponds also to personal satisfaction and sense of responsibility (Caselli 1998). An institutionalized per-

⁷⁸ CIAA has presented the following non-trade concern in occasion of the launch of a World Trade Organization (WTO) round and negotiations on agriculture (TCO 044/01, October 2001; <http://www.federalimentari.it>).

ception of environmental responsibility, driven by social and especially institutional interest, and by perceived responses of other key actors, seems to characterize the responses (cf. Wehrmeyer 1995; Peterson 1999; Ott 1989; Lawless & Finch 1989). An institutionalized belief that eco-efficiency guides activities in the right direction seems to be shared by both suppliers (Purser, Park & Montuori 1995; Gladwin, Kennely & Krause 1995; Crane 2000; Fineman 1996; 1997; 1998; Iyer 1999; Porter & Van Der Linde 1995; Hart 1995; Miller & Szekely 1995; Gillespie 1992). Social responsibility contributes to good reputation (Fombrun 1996).

Both suppliers have taken *actions* that improve their environmental performance. Their approaches are not completely comparable because they have internalized a different number of production phases. Regulatory compliance sets limits to the treatment (and slaughtering) of farm animals, and the Italian supplier mentioned explicitly the rules of non-cruelty during all phases of production. The critical environmental impact of the Finnish supplier concerns farm waste management, which had been approached by voluntary improvement efforts. A more industrialized Italian supplier focused on technical and technological solutions that are economically attainable.

The conclusions drawn from the findings concerning suppliers are represented in an outline of the main points (fig. 7.7).

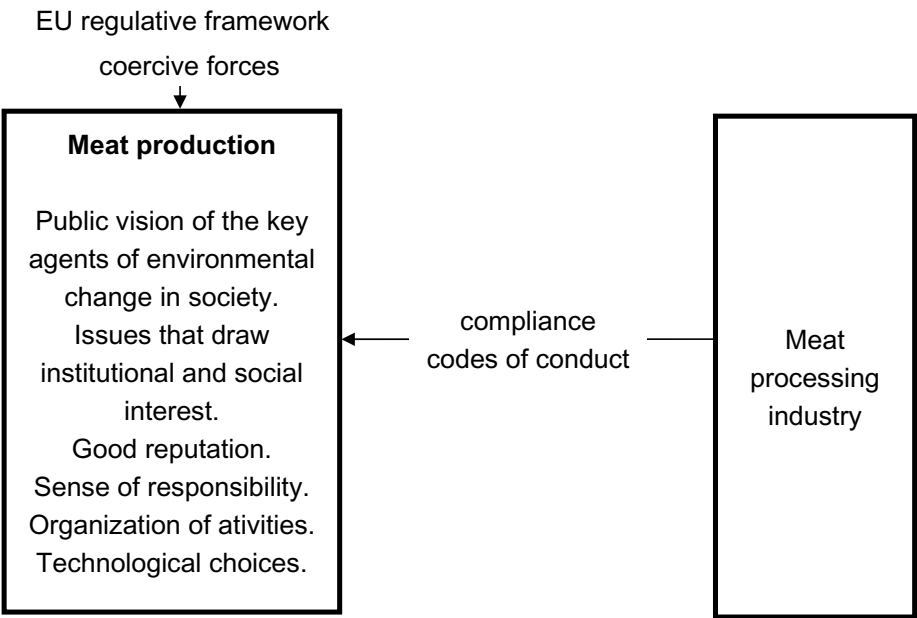


Figure 7.7: Approach of suppliers

8 CONCLUSIONS

8.1 A model of corporate environmental management

A comprehensive representation of corporate environmental management can be built with the help of the main concepts of this research. The emerged scheme (fig. 8.1 on the next page) represents the current state of affairs of corporate environmental management, in meat processing sector, as perceived by two case companies. Though the organizations under investigation differ from each other in many ways, their opinions are substantially quite similar: environmental awareness must not erode economic result.

The purpose of this research is, however, to build an interpretive model of the establishment and the development direction of corporate environmental management. The model that emerges from the findings is illustrated in figures 8.2 and 8.3 (pages 273-274). It is, predictably, a synthesis of the results presented in figures 7.2-7.7.

The model draws a comprehensive picture of corporate environmental approach as managerial question. It derives from the analysis of two meat processing companies, but it can have many congruencies with other modern industrial companies inside and outside the sector. It represents a framework through which we can understand the strengths and the weaknesses of drivers for corporate greening. It shows what actions companies are ready to take, and what they expect from other social actors.

The model reflects the competitive situation in meat processing sector. The focus on scale efficiency leaves little room for creative scope efficiency. The fact that the sector is perceived as being relatively “*natural*” decreases the importance of environmental visioning, though it could, instead, offer interesting opportunities.

The model supports the initial assumption that environmental management has become part of daily organizational activities. Companies expect very much guidance and support from the public sector because environmental management is a complex question of common good. Environmental visioning is left to public institutions; a single company would risk its credibility, good image and business rationale. Companies specialized in environmental research, consulting, service and installation face the challenge to innovate and

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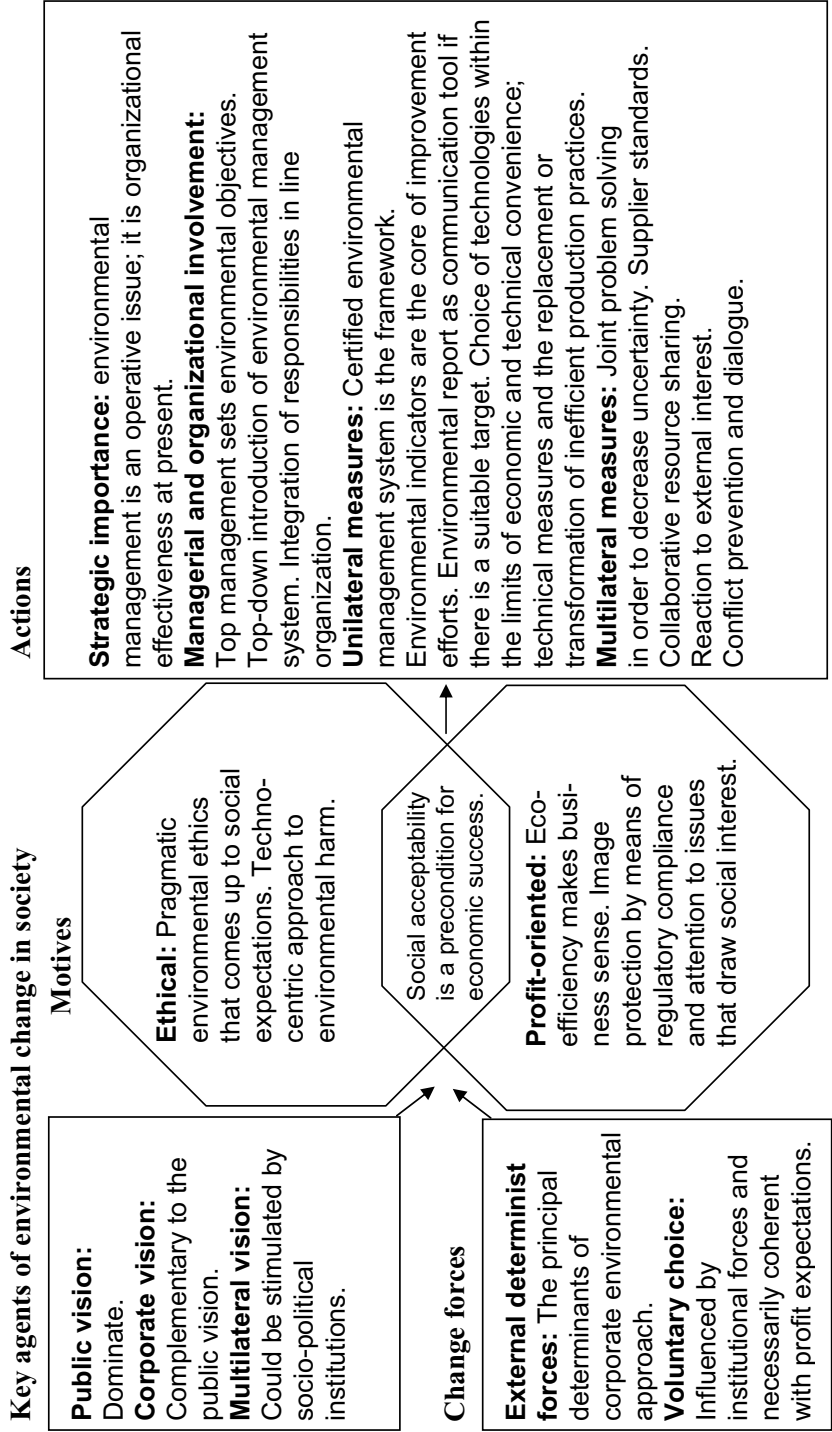


Figure 8.1: Emerged contents of main concepts of research framework

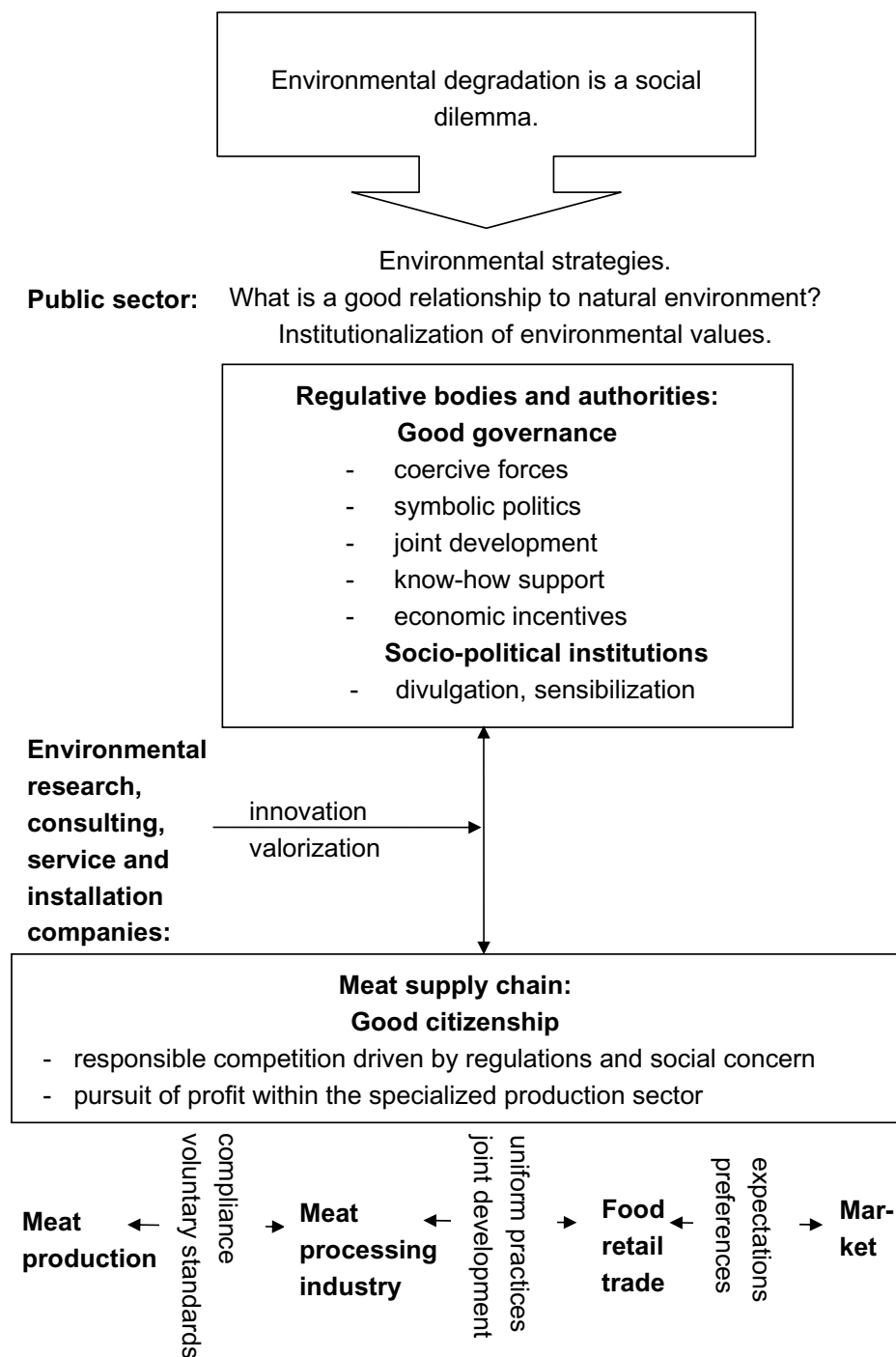


Figure 8.2: Emerged model of corporate environmental management at sector level

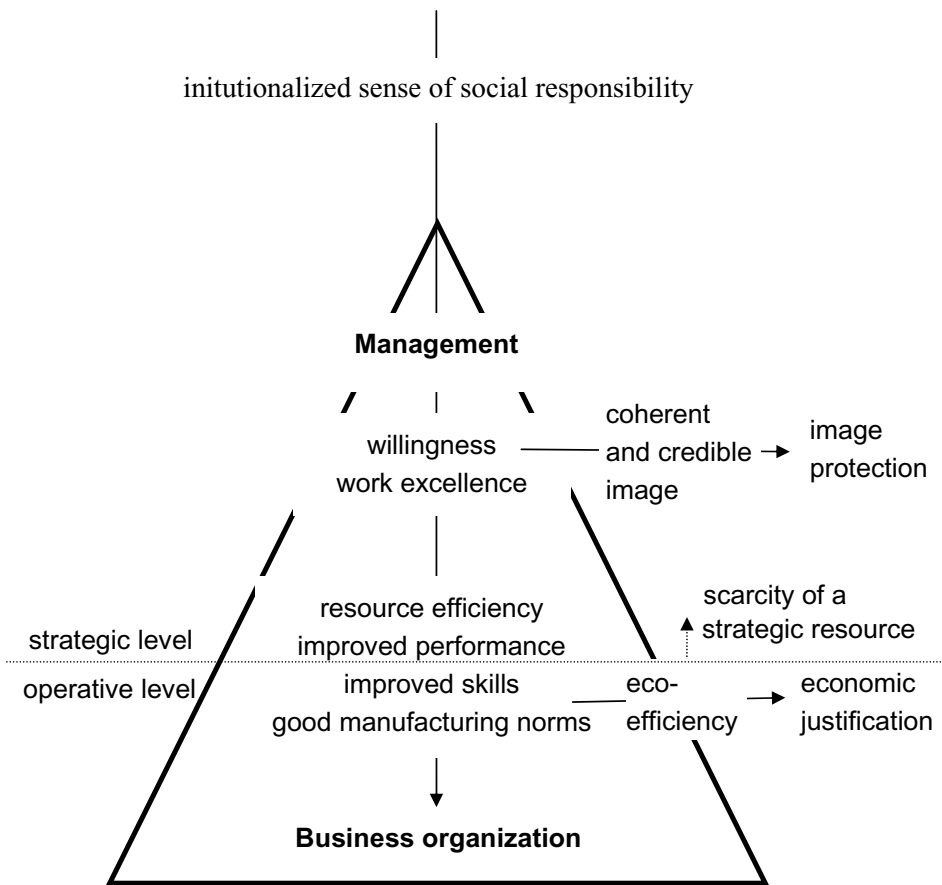


Figure 8.3: Emerged model of corporate environmental management at corporate level

valorize their ideas, to create a competitive advantage. In conventional manufacturing companies, environmental issues must be manageable, and support organizational and technological efficiency. Image protection demands responsible competition, which means that regulations and prevailing social expectations must be taken into account. Environmental management equals the pursuit of business benefit by means of regulatory compliance, which is generally enough to guarantee the social acceptability of activities, and by resource efficiency.

The findings suggest that the most serious environmental problems of meat supply chain are relative to farming. Regulations and effective control are the most efficient remedies. Food safety is also guaranteed by regulations. The findings also support the a priori assumption, that companies still consider environmental issues as being technical problems, whose resolution improves resource use. Environmental management is seen as advantageous only if it gen-

erates cost savings. Companies regard environmental degradation as a social problem that must be resolved by public intervention. They adapt their activities, but a reconsideration of business would be bereft of any economic justification.

The above-illustrated model, emerged inductively from the findings of this research, is compared with earlier conceptual suggestions of corporate environmental management, illustrated in paragraph 1.4. Contrary to some early organizational and managerial studies, the findings of this research suggest that environmental management is a positive issue to business organizations. There are at least two plausible reasons for the positive attitude; the first is the change that social values have undergone during the past decade. A shallow ethical concern about the future of the planet, originating from the reflection on concrete data, seems to be diffused, and makes clearly negative approaches socially unacceptable (cf. Linnanen 1995; Fineman 1996, 1997, 1998; Bansal & Roth 2000; Crane 2000). Though environmental management has not become a core differentiating competitive factor, its contribution to an efficient resource use has been recognised. Moreover, the development and the diffusion of standardised management systems have made environmental issues manageable in an economically rational way, increasing social acceptability, and guaranteeing a low risk of failure (cf. Corbett & Van Wassenhave 1992). According to the responses, the implementation of a standardised environmental management system meets social expectations, which means that there is no effective external driver for further improvements. Institutional approach shows its relevance, since environmental management is based on an institutionalized sense of social responsibility (cf. Halme 1996; Strannegård 2000; Jennings & Zandbergen 1995). Institutional forces are effective inside and outside companies.

The findings of this research suggest that the development of environmental management is issue-contingent. It follows the institutionalization of environmental values and beliefs in society. Since self-regulation is normally an extension of regulatory compliance, it does not introduce creative and innovative solutions that might result more or less successful. Continual improvement takes place within the framework of a standardised system, and is based on increasingly ambitious objectives of resource efficiency, facilitated by technological progress. Collaborative relationships are based on shared economic benefits, which are also environmentally beneficial. It is difficult that compliance and economic rationality-driven environmental management could go backwards, or could be based on conditional commitment (see Ghobadian et al. 1998). The findings support an argument that the commitment to voluntary improvements is restrained because there is no ethically convincing or economically justifiable reason to act. Speculative commitment is not, instead,

attractive, if the instrumental value of environmental ethics is low, as it is in the meat processing sector. Moreover, the belief by which environmental management must be based on facts, and be a credible part of organizational activities limit the recourse to speculative commitment (cf. Ghobadian et al. 1998).

The model that emerges is, in a general outline, coherent with the model designed by Ghobadian et al. (1998). The last-mentioned model identifies three external factors that influence corporate environmental management: market behavior, legal-regulatory influences and social expectation. Ghobadian et al. sustain that there are dynamic interrelationships between external, mediating and moderating factors. The findings of this research confirm the potential influence of the above-mentioned external determinist forces, they put them in the following order of effective importance: legal-regulatory influences, social expectations and market behavior. The prevalence of public vision accentuates the importance of legal-regulatory framework. On the one hand, regulations are perceived as products of wider social concern. On the other hand, compliance is seen as a sufficient guarantee of market acceptance. The findings of this research also confirm the interpretative framework, which consists of managerial and organizational attitudes and experiences. They suggest that there is a strong influence of institutional forces on the sense of the social responsibility of managers as individuals and organizations as entities. Corporate tradition, which refers to the transmission of knowledge and established customs, together with corporate culture (rather than corporate ethics), which determines, first and foremost, the nature of human relationships, form the context for environmental decision-making. What managers evaluate are the economic benefits of a decision and the availability of technological solutions. If a decision is economically advantageous, a company finds human and capital resources, and adapts the organization accordingly. However, the decision must fit organizational identity. The model of Ghobadian et al. represents corporate environmental behavior, which has as an outcome environmental strategy. The findings of this research suggest that the described decision-making process fits, also, operative environmental decisions.

The findings of this research are partially discordant with the model of corporate ecological responsiveness of Bansal and Roth (2000). They support the relevance of issue salience, defined as a function of certainty (scientific knowledge), the imputability of damage (transparency) and emotivity (public concern). They suggest that reputation disadvantage may hit a company, though the damage was imputable to another link of supply chain. In meat processing sector, the knowledge of the issue seems to have the strongest influence on competitiveness, and lead to process development, i.e. more efficient use of costly resources. Transparency and emotivity are potential drivers for competitive motivations. According to the findings, high issue salience in-

creases the need for legitimation, which in turn makes companies comply with regulations, and collaborate in various forms with environmental interest groups, particularly within their sector (through industry associations or establishing bilateral or multilateral relationships). Moreover, legitimation makes companies pay attention to issues that draw social and regulatory interest, which guarantees that, in case of a problem, a company would be able to show that it has acted as a good citizen. Impression management is focused on the guarantee that there is no negligence or violation. According to the responses, field cohesion decreases the interest of companies in a differentiation-based, but not in eco-efficiency-based competitiveness. Bansal and Roth highlight the individual concern of organizational members whose relevance is based on ecological values and power to act. The respondents of this research perceived that institutional forces make organizations internalize values and adapt their behavior. Institutionalized values influence the way companies compete (responsible competition, eco-efficiency). Legitimation is not influenced by individual or organizational concern, but by external expectations (regulatory and social interest). Institutionalized environmental responsibility fosters eco-efficient solutions and responsible competition, but not actions that do not have economic justifications.

The model of Schurer Lambert approaches environmental issues as ethical and strategic questions, to be examined in the light of the severity of harm and the feasibility of solutions. The findings of this research support the importance of management's perceptions of feasibility as a function of issue understanding and capability. They further suggest that understanding and the capability of resolving questions depend on influential institutional forces. They also support the importance of management's perceptions of urgency. In addition to time pressure, visibility and attributions for responsibility, an environmental issue becomes urgent if it threatens the continuity of activities, like water scarcity could do. Moral intensity is affected especially by social consensus (or the consensus of "*powerful others*"). In brief, the findings support the relevance of factors included in the model, but suggest that the strategic part based on resource efficiency should need more attention in order to give more appropriate relative weight to economic and ethical change forces.

The fourth model presented in the introduction of this research illustrates individual and contextual factors influencing environmental ethical decision-making. The findings suggest that corporate environmental decisions are never purely ethical, but interlinked questions of economic and social responsibility. The findings argue for the relevance of managerial attitudes to environmental behavior, and personal moral obligation for environmental consequences as an interlinked product of institutionalized values in society. The findings, thus, suggest the integration of the two aggregates that Flannery and May consider

separately. Their different approach leads to the conclusion that personal moral obligation is not an influential factor. Flannery and May define self-efficacy as a capacity of individual managers to make environmental decisions, and find its importance irrelevant. The findings of this research suggest, instead, that self-efficacy depends on the availability of feasible solutions, developed outside the organization, and that it influences strongly environmental decision-making. They give more weight to organizational culture in general than to ethical climate. Organizational culture that enhances mutual trust, good work and continual development is favorable to environmental responsiveness. The findings also suggest that environmental decisions must always be economically justifiable. Eco-efficient technical and organizational solutions allow for decisions that exceed compliance. Flannery and May define the magnitude of consequence as a factor that moderates or mediates the effect of personal and situational factors on environmental ethical decision intention. The findings of this research suggest that a managerial decision is constrained by environmental regulations. Being environmental harm a social harm, recognised by public institutions, the assessment of the magnitude of consequence, for persons and non-persons, is already integrated in personal moral obligation and subjective norms, which makes its treatment as an ulterior moderator or mediator tardy.

8.2 Answers to research questions

This research started from two broad research questions that need to be answered in order to increase the understanding of corporate environmental management. The findings suggest the following answers to the first research question and its relative subquestions.

1. What are the effective motives to integrate (not to integrate) environmental management into the activities of a business company, and why?

The findings suggest clearly that the effective motives to integrate environmental management into the activities of case companies are regulatory compliance, institutionalized values and economic rationality. Regulatory compliance and other less compelling signs that come from public institutions, especially from the European Union, are the key forces that direct responsiveness. The disinterest of market, instead, is perceived as a barrier to market-oriented initiatives because it excludes such environmental actions that would make sense only if the market rewarded environmental quality. According to the responses, environmental values in society have already undergone a change process, which has led to the current level of responsible competition.

Environmental approach has an ethical loading in accordance with the prevailing ideas of social acceptability of actions. Regulatory framework has changed correspondingly, and it reflects, together with public forms of support, the level and the shape of social expectations. Economic rationality pushes companies to use resources even more efficiently, which is in harmony with the objectives of environmental preservation. Companies seek economically affordable and technologically suitable solutions that are based on latest technological know-how, which per se means that solutions are also environmentally efficient.

1a. What is the attitude of corporate management to the key agents of environmental change in society, and why?

The responses show that the attitude of corporate management to the key agents of environmental change in society is clearly inclined towards public vision. Regulative intervention is necessary in order to achieve positive results in the mitigation of environmental harms. Environmental degradation is a complex social problem that needs scientific knowledge-based, collective responses. Public institutions should involve also private citizens (mainly in their capacity as consumers) in environmentally beneficial behavior patterns. Since environmental degradation is an undesired outcome of cultural values, the ways to pursue these values, and the role of socio-political institutions as value change agents are crucial. The main reason for the favourable attitude to public intervention is the perception of environmental management as a cost factor. The internalization of environmental costs must hit companies in an equal manner, and an efficient control system must impede free riding. Though regulative compliance is the cornerstone of corporate responsiveness, corporate self-regulation is an important complementary dimension of environmental management. Self-regulation is driven by business benefit, and supported by the sense of social responsibility and willingness to do good work. Creativity and innovation are left to companies specialized in environmental solutions and services.

1b. What external drivers or barriers influence the shape of corporate environmental approach, and why?

The answer to this question is a direct continuation of the previous response. According to the results, the shape of corporate environmental approach is influenced by regulatory compliance and public incentives. Companies have to adapt to effective regulations, and sometimes anticipate imminent regulative interventions in order to avoid the disadvantages of late responsiveness (like major costs or even bad reputation). Environmental values that prevail in society have ultimately repercussions on companies. They hit all companies operating in a certain sector, i.e. forming a supply chain of certain products. Consequently, regulatory compliance and attention to issues that

draw social interest characterise the relationships between various links of a supply chain. The most important customers of meat processing companies are big retail trade companies. These have perceived similar regulative and social pressure as meat processing industry, and started to regulate their relationships to their suppliers. They are implementing certified environmental management systems, and expecting similar responsiveness from their suppliers. The influence of external drivers is based, respectively, on their legal opportunity to claim interest in organizational activities, and capacity to affect the economic viability of companies. The shape of environmental management in business to business relationships is determined by the interchangeability of approaches, which simplifies relationships. The pressure of consumers could have an important effect, but it rests substantially at an imaginary level.

1c. How willing and capable corporate managers are of fostering environmental management in their organization, and why?

Considering the fact that corporate environmental management is, first and foremost, compliance-driven, the responses show that the attitude of managers is an important determinant of environmental responses. The question is not of the ethical sensitivity of managers to environmental issues, but of the willingness to develop organizational activities continually in order to guarantee long-term profitability and social acceptability. Thriving companies recognise and respond to key social expectations. They carry out organizational activities efficiently, without compromising the quality of products. However, managers cannot choose a quality-price level that consumers do not accept. The respondents perceived without exception environmental issues as technical questions, and further perceived that their capacity to foster environmental management was constrained by their level of technical expertise. However, they did not criticise or question the technocentric approach. On the contrary, they perceived it as being a correct and suitable way of approaching them. Managers would have possibilities to make their ideas heard, but there is no need to foster personal environmental ideas in organizations. Broader institutional forces that have diffused in society influence both organizational and personal approaches. Altogether, the respondents are satisfied with the current level of environmental management of their companies. They do not engage resources in creative visioning they do not believe in.

1d. How sensitive is the organization to environmental considerations? To what extent is the environmental approach based on ethical or profit-oriented motives?

The question of ethical sensitivity to environmental questions must be interpreted within the framework of institutional theories. Organizations are sensitive to issues that draw regulatory and social interest. Certain attitudes to environmental issues are perceived to meet social expectations, and therefore be-

come a right and appropriate way to approach these questions. The ethical approach is, thus, responsive and by no means proactive. The sense of social responsibility condemns non-compliance and intentional harm, and enhances the role of companies as good citizens. The findings suggest that corporate environmental approaches are coherent with the shallow ethical concern that prevails in society. Environmental ethics is a cultural question, and managers align their personal approaches and organizational development to the values that are institutionalized in society. Voluntary environmental actions must necessarily support business, but they cannot generate environmental benefits, while being detrimental to economic performance. However, voluntary responsiveness is driven by eco-efficiency, which pursue the optimization of resource use and the minimization of waste, within certain limits. Cost efficient thinking must neither compromise the long-term profitability of activities, nor must it affect negatively corporate and brand image, which are based on good product quality and professional skills. Environmental management is not a core factor that creates good image, but its contribution is positive. The effect of environmental negligence on image could be, instead, devastating, with consequent serious repercussions on profitability.

The findings of this research suggest the following answers to the second research question and the relative subquestions.

2. How environmental actions influence daily organizational life and long-term course of action?

According to the responses, environmental management does not guide the development of organizational activities, but supports it. Environmental management has been internalized in a way that fits profit-oriented business strategy. Eco-efficiency offers valid operational guidelines. Attention to environmental issues has not changed the strategic position in the market because companies have not identified new attractive product-market combinations. Environmental approaches are based on regulatory compliance, which makes the creation of internal strategic visions unnecessary. Environmental management consists of the adaptation of organizational activities to social expectations, and of the improvement of cost efficiency. Environmental objectives are pursued by means of up-dated technological and technical solutions, and correct manufacturing practices. A standardized system is an internally suitable and externally acceptable tool to manage environmental issues. When the system is implemented, environmental management becomes routine.

2a. How important environmental issues are to organizational development and operational efficiency?

The findings suggest that eco-efficient thinking guides organizational activities in a right direction. It supports a conventional business strategy, based on cost efficiency, customer satisfaction and professional skills. A developing

company that wants to thrive in the long-term cannot neglect a dimension of its activities that draws regulatory and wider social interest. Environmental negligence would soon turn into a reputation disadvantage, which might have serious consequences. Companies do not arrive at the reconsideration of their business activities starting from ecological principles, but they evaluate critically the efficiency of their resource use. The development of environmental management is based on measurable indicators, which are developed to eliminate operative inefficiencies. However, environmentally neutral solutions that improve cost efficiency are plausibly equally important factors that contribute to the building of competitive advantage, given that environmental issues are not assigned direct competitive value. Moreover, environmental initiatives do not imply risk taking in organizational development because solutions are economically justifiable technical measures.

2b. How environmental considerations influence managerial work and operational activities?

Environmental considerations demand managerial attention during the establishment of objectives, and the means to achieve them. The amount of managerial effort is, however, reduced by the choice of a standardized system. The results show that organizations may induce to the recourse of external expert assistance at a stage that requires particular managerial attention and specific knowledge. A standardized system is typically implemented according to a top-down logic. Environmental management is integrated in line activities, but the focus on eco-efficiency and on technology-based solutions actually confines it in the technical service and production functions. Managerial work, after the initial implementation phase, consists of the maintenance of established processes and of the development of system. After the “*low hanging fruits*” have been gathered, it may be difficult to discover new convincing development areas. External relationships (e.g. within industry associations) can stimulate new ideas, though it is not plausible that environmental management will take completely new directions. Cost efficient thinking makes managers associate environmental management with conventional business planning because environmental taxes, costs and fees affect many managerial decisions.

2c. What unilateral environmental measures has the company taken? How do they contribute to the improvement of environmental and business performance?

The results show that regulatory compliance makes companies necessarily adopt unilateral measures, which aim at preventing or mitigating hazardous emissions. In the meat processing sector, companies have to pay special attention to the treatment of wastewaters. The range of unilateral measures is developed around the standardized system approach, and shaped according to institutional expectations and internal economic rationality. At operational

level, sorting reveals to be a central practice. An important benefit of a certified system is the capacity of the company to demonstrate how environmental issues are managed. Such capacity could be important also in the case of a negative event. From the environmental point of view, it can be asked if procedures have become more important than effective improvements. Environmental measures are integrated in conventional technical development work, and the valorization of results is integrated in the logic of conventional communication. The aim seems to be to show that environmental negligence is not a risk factor, and that efficient resource use improves profitability. The value of environmental achievements to consumers is regarded as irrelevant, which makes market-oriented communication unjustified. In fact, (environmental) quality labels are one way to inform consumers about the characteristics of products, but as e.g. Järvelä (1998) claims, quality labels do not guarantee that consumers understand the conceptual content of quality, or get information about the system beyond the label. According to the responses, consumers do not expect or appreciate environmental communication, and the effect of communication could even risk being adverse.

2d. What multilateral environmental measures has the company taken? How do they contribute to the improvement of environmental and business performance?

The findings suggest that there are determined preconditions for multilateral environmental measures. The positive attitude of case companies to sector-wide solutions argues for collaborative relationships, like the one established by the Finnish case company (coordinated transports, circulating plastic made distribution cases). Hostile attitude to collaboration prevailing among potential partners naturally makes the possibilities to build joint solutions vanish. Limited knowledge and a consequent risk of inopportune decisions makes companies seek external (costly) consultation services. The results show that companies can also improve and up-date their knowledge through the participation in industry associations' development work. They do not actually seek environmental partners, but are only interested in economically advantageous partnerships. The logic of eco-efficiency makes it again possible to translate the actions into environmental improvements. Regulatory compliance and the social acceptability of activities push companies assure that their suppliers meet established minimum standards. Environmental management has a positive effect on the acceptability of corporate activities. This effect manifests itself particularly in business to business and business to authorities relationships.

The main research questions and relative subquestions have been formulated in such a way as to add a piece to the picture of corporate environmental management. These pieces are interrelated.

The essential points of the interconnectedness must be cleared to complete the answers to the research questions.

The assumption was that motives, based on individual and collective values, beliefs and goals, explain actions, though connections may be multiple and complex. However, according to the results of this research, the picture that emerges is quite simple and coherent. Corporate managers as individuals and organizations as wholes are influenced by institutionalized social values and beliefs. Environmental degradation is perceived as a complex social problem, which resolution needs public guidelines. Self-regulation must have economic justifications. Since environmental issues draw social interest, they are an essential part of organizational development, but they cannot have an adverse effect on profitability. A compliance-driven, institutionalized approach makes companies look for social and regulative guidelines to the development of resource efficiency. This technocentric approach supports profit-oriented business strategy, and can be concretely managed by standardized management tools.

8.3 Current state of environmental management

This research draws a picture of corporate environmental management that is strongly influenced by regulations, support and guidelines of public institutions. The European Union has taken a leading role in environmental regulation and the formulation of environmental policy over national governments. Given the current regulatory framework, companies perceive that environmental performance has effectively improved, and has reached a rather good level. Roles are clear: public institutions set limits and indicate the direction of development, consumers express their preferences by their buying decisions, and companies operate within the regulative framework, making efforts to satisfy consumer needs in a profitable way. Willingness to do good work and take a full responsibility for actions enhance a positive attitude to environmental management, but they do not push responsiveness beyond the management of issues that draw regulatory and social interest. Companies have to focus on profitability, which is pursued by the development of internal capacities. Environmental issues are a challenge especially to companies specialized in environmental technologies and services.

Companies adopt low risk environmental solutions that have reached a persuasive degree of qualified consensus. ISO 14001 standard has diffused across countries and production sectors, and it is seen as a natural extension of earlier widely implemented quality management systems, developed by the same organization. ISO 14001 contains concrete procedures that companies can put

into practice, and it enables to show to external stakeholders that something concrete has been done. Continual improvement is taken for granted, but after the elimination of apparent operational inefficiencies, it is not easy to keep the initial pace because environmental thinking does not evolve from technocentric approach. A similar threat of inertia has been highlighted also e.g. by Welford (2002). Self-regulation depends on external input, which can be an eco-efficient technological solution, new indicator or simply a suggestion of certification body. However, managers also perceive that public institutions keep on involving companies in new environmental improvements, and, thus, see that environmental management will not come to a dead end.

Managerial efforts are concentrated on the introductive stage of a new system, and they are strongly influenced by a technocentric attitude. Environmental responsibility means that issues that draw regulatory interest are managed carefully. Self-regulation sets a question of operative efficiency, pursued by advanced technological and organizational solutions. In the meat processing sector, organizational development is based on automated production, advanced information systems that support logistical functions, efficient transportation, waste management and affordable energy provision. The logic of doing more from less has rooted in environmental thinking, and it is supported by public environmental policy. Human organization, at the bottom line, is involved in environmental management by norms that establish correct practices. This kind of norms typically tell what not to do. Self-regulation is based on objectives that can be measured in the short term. Physical indicators (the use of natural resources and the level of emissions) are suitable for the control of achievements. The internal control of the achievement of objectives is the most important managerial function. The communication of results is a routine to be run, while the valorization of results is given scarce attention. The improvement of environmental performance may be connected to strategic decision making, concerning e.g. strategic partnerships, but the focus is on economic rationality.

Companies serve customers, and they cannot choose quality or price that customers or final consumers do not accept. The focus is on industrial quality, which consists of error free products and relative services, and on customer-oriented quality. Companies try to add value by expanding their product ranges (e.g. new package sizes) or improving services accompanying products. Environmental management is insurance that reduces unpredictable reputation risk rather than a differentiating factor in the market. Companies do not see business sense in environmental marketing. They approach consumers by conventional arguments relative to taste and convenience, and consider environmental management as a latent guaranty of food safety. In business to business relationships count regulatory compliance and ulterior issue-contingent stan-

dards that are driven by regulatory interest or social consensus. A certification allows environmental management to be considered in customer relationships because it meets the willingness of customers to control, and the willingness of suppliers to be controlled. In meat processing sector, the interest of consumers is strictly connected to questions of food security and traceability.

Altogether, meat processing companies need to be shaken by public institutions in order to improve their environmental management. Otherwise they must see clear economic justifications for environmental measures. Within this framework, environmental management is not likely to develop a positive factor of strategic management that characterizes organizational development and stimulates managerial commitment. Systematic environmental management is a license to operate, but too strong exposure of environmental issues is seen as a potential competitive disadvantage.

8.4 Validity of data and interpretations

Qualitative research typically seeks to generate an in-depth understanding of its object. It is empirical, i.e. field-oriented, as well as interpretative, which makes it rely, to a certain extent, on intuition. It produces social explanations, which are expected to be in some ways generalized (Mason 1996). These key features of qualitative research affect the way by which validity of this research process and its outcome are assessed.

The reliability of case studies consists on the demonstration that the operations of a study can be repeated with the same results (Yin 1988). Though a minimum requirement of a serious scientific research is undoubtedly the documentation of all research materials and analysis procedures (e.g. Mäkelä 1990), it is not guaranteed that other researchers are able to reproduce a qualitative case study. A careful documentation allows the assessment of how rigorous the various research phases are, but there are at least three reasons that may limit the reproducibility. The first reason is that there is a unique interaction between the case and the researcher. Qualitative data is often collected by interviews, which are unique interaction situations. However, clear interview themes and the control of social distance, which refers, among other dimensions, to the trust between interviewees and the interviewer, should improve reliability. The second limitation is relative to the methods of qualitative data generation. They may not be standardised, which makes it difficult to test their reliability. The third limitation originates from the way qualitative interpretations are generated. Qualitative investigators are, in fact, encouraged (relaxing the requirements of pure interpretative view) to add personal perspectives in their interpretations (e.g. Stake 1995), which give a research a subjec-

tive imprint. Being aware of the above-mentioned limitations, a qualitative researcher can make efforts to improve reliability by generating and analysing data thoroughly, carefully, honestly and accurately (Mason 1996).

According to Stake (1995), reproducibility does not increase the value of a qualitative case study. Instead, the main question should be whether or not the meanings generated by the researcher (or the reader) can be valued. Such value is based, firstly, on the validity of data, which can be evaluated by their authenticity and relevance. Moreover, various sources can be biased in treating certain arguments. Secondly, it is based on the validity of interpretations and conclusions, which can be examined by evaluating their relevance in relation to theories used, and correspondence to the meanings that research subjects intended to give.

The choice to use data collected mainly by interviewing the managers is briefly discussed in order to assess the authenticity and the relevance of the data, and the bias of respondents in favour of particular viewpoints. The main reason for the choice of managers as sources of information was the belief that they should be aware of the environmental approach of their company. Moreover, it was plausible to expect that they would participate more or less actively in environmental decision-making in their company. Their managerial position should guarantee, at least to some extent, power to act (or not act), and make them bear the responsibility for their decisions in proportion to their power. The interviewees were asked to evaluate their personal environmental values, beliefs and behavior in order to interpret the congruence between personal and organizational approaches. They were also asked to describe corporate environmental values, beliefs and behavior, and indicate external forces and internal motives for environmental decisions. Document analysis was used to collect background data, fill gaps, and confirm certain interview responses. The representatives of supply chain were also interviewed in order to complement and compare data collected inside the case companies. Any inconsistency of data, concerning managerial perceptions, differences between interview data and documental evidence, or internal and external information sources, was cleared up in order to validate the data. There were some intra-organizational differences between responses due to personal preferences and opinions. Altogether, the approaches of the two case companies to environmental management were quite coherent, though the individuals representing the companies gave weight to different aspects that represent the organizational reality they belong to. Environmental management is by nature an argument that may raise responses affected by the social desirability effect. In other words, respondents would give answers that pad out reality. Efforts were made to control the social desirability bias by avoiding interviewees' specula-

tions at abstract levels, and by focusing, instead, the discussion on effective environmental decisions, measures and events in organizational life.

Adequacy is another aspect that has to be assessed to validate the data collected (e.g. Mäkelä 1990). In this research, the case companies represent meat processing companies that have a consolidated position in their domestic market. They have modern organizational structures and they are developing companies. From the point of view of environmental management, the cases are interesting because they regard environmental management as being one essential dimension of organizational development. Hence, they can provide opinions and perceptions concerning their experiences.

The data are not evaluated, in this research, from the point of view of saturation, which refers to a situation in which new knowledge is not achieved by continuing the data collection. Saturation could simply mean that the interviewer repeats the same routines (e.g. Alasuutari 1994). It is claimed, instead, that the data collected are sufficient for the interpretation of the environmental management of the case companies because the key actors involved in its development are included in the research.

Describing the data analysis process, with its inputs, analysis tools and outputs, validates the generation of interpretations. The data collected were presented in a narrative form in order to illustrate them at "*raw material*" stage. The narrative has been built by aggregating data in categories, according to the structure of the conceptual framework. Eventual incoherence of responses has not been covered up because it is recognised that qualitative data is typically expressively rich, multilevel and complex (Alasuutari 1994). Direct quotations have not been used (apart from some brief, incisive expressions that have been quoted to colour the text), but careful attention has been paid to maintain the original meaning of interview responses. Quotations can make the reading of the report more difficult (Pyörälä 1995). Extensive data description gives the readers an opportunity to consider alternative interpretations that might be preferred to those presented by the researcher (Stake 1995, 121). Qualitative interpretation process, based partly on intuition, is not easy to describe. Qualitative research is subjective due to the researcher – case interaction: meanings come from social interaction, being handled in and modified through an interpretative process (Blumer 1969). As Stake (1995) claims, subjectivity is not a defect, but an essential element of understanding, and therefore it should be accepted. However, some efforts have been made to validate the interpretation process. Firstly, clearly stated research questions and a coherent conceptual framework help to understand, from the very beginning, what kind of patterns are sought among data. The validity of interpretations can be improved by seeking to demonstrate why other interpretative perspectives would be less compelling (Mason 1996). Secondly, a possibility that some conclusions

might be incidental is admitted, but when the data were considered as being critical to an assertion, or when key interpretations were elaborated, efforts were made to avoid incidental conclusions by using triangulation (Stake 1995). Two triangulation protocols were used; the first was data source triangulation, in which the personal perceptions of respondents were confronted, and organizational experiences compared with broader tendencies concerning food or meat processing sector. The second was methodological triangulation, in which interviews were integrated by document analysis or direct observation. Finally, all respondents were invited to review their responses in order to guarantee the accuracy of data.

This research had as its objects two cases from different European countries, both members of the European Union. The findings suggest that the European Union environmental policy is a strong common driver for corporate responsiveness. The companies expected legal regulatory guidelines and economic opportunities from the European Union. They perceived quite similar political, economic, legal, technological and social drivers, which argues for the existence of an European business environment. The common regulatory framework also seemed to reflect, and presumably influence, the perceptions of actors of the member states. Regulations were perceived as guidelines and as manifestations of wider social interest. The globalization of market and the development of international standards were ulterior factors that seemed to affect the responsiveness of companies across countries. Social awareness of environmental degradation was connected to global events that have drawn the attention of the media, institutions and citizens. However, in meat processing sector, companies have to follow the local tastes of consumers, which seemed to be quite slow to change. This may be one reason for the lack of creativity and innovation in environmental management.

The case companies differed by their size and structure. These differences have added new dimensions on the interpretation, they have highlighted different resource availability and its effect on the development of environmental management. On the other hand, they have shown that the managerial awareness of environmental degradation is a product of institutionalized social interest. They have also showed that environmental management is treated prevalently as a technical issue, to be integrated in line organization.

One interesting difference that emerged from data was the attitude of the companies to collaborative competition. The question seems to be cultural: the Finnish company was more favorable to collaboration than the Italian company, despite greater resource availability of the former. Local culture can, thus, be a barrier to collaborative initiatives.

8.5 Suggestions for further research

8.5.1 Conceptual framework development

The findings of this research have been interpreted within a conceptual framework that combines numerous theoretical perspectives on the research phenomenon. The emerged interpretation suggests that all the parts of the conceptual framework have contributed to its understanding. In fact, the picture that emerged is comprehensive, it connects environmental management issues to the development of meat processing business, taking various organizational and contextual factors into account.

The results show that a strong state that determines the rules of the game, creating opportunities from superior environmental performance and providing support rather than imposing ulterior burdens on economic activities, is the cornerstone of corporate environmental responsiveness. Public policies should match the micro activities of economic development to more macro effects on national economies. Therefore the development of an integrated economic, tax and environmental policy to encourage environmentally sustainable behavior is continuously an important field of study. Tax rates that fully reflect environmental costs can be seen as too penalising solutions to consumers⁷⁹. Could e.g. companies with an environmental certification benefit from a tax relief or have a priority to public funds? How can local authorities contribute to the creation of local synergies, which go beyond the effect of regional regulations (i.e. the European Union regulations)? Public institutions have chosen the way of eco-efficiency to de-couple environmental degradation and economic growth. The assessment of achievements and failures can ground future development work aiming at improving technologies and designing adequate policy instruments. Companies firmly sustain – and they should be aware of their interests - that they need positive market responses to their environmental initiatives, but consumers remain favorable in words rather than in deeds. Public institutions are challenged to involve households and single consumers in environmentally acceptable behavior patterns. Should they force, invite or stimulate? Which social actors should take a lead as

⁷⁹ The logic that market has to pay for environmental improvements can be criticized. The Executive Director of Finfood sustained that consumers should not be burdened with environmental costs. Environmentally responsible solutions should be interpreted as parts of national food economy development, and in agricultural production this kind of responses represent costs for the development of rural areas. A solution would be a system of subsidies based on effective environmental improvements, measured by reliable indicators.

change agents? Which force will brake the cycle of values that do not drive substantial improvements? The findings of this research suggest that the role of companies as change agents is complementary to public institutions. They echo issues that draw regulatory and social interest, but they are reluctant to risk a competitive disadvantage from too pronounced environmental position. How could their participation be stimulated without creating role confusion?

Institutional theories seem to offer a valid framework for the explanation of forces that induce organizational change. Environmental degradation is seen as an institutional problem, which resolution depends on the level and shape of social concern. Companies are embedded in the social network where institutional forces affect. Therefore the study of institutional mechanisms can contribute to the further development and understanding of corporate environmental responses. In particular, they can explain the diffusion of certain responses that companies evaluate, not only on the basis of their contents, but also on the basis of their legitimizing effect. The study of institutional forces might also reveal the groundlessness of certain institutionalized environmental credos.

The findings also suggest that the resource dependency and population ecology theories explain the need of companies to align their environmental responsiveness to market expectations. On the other hand, their environmental performance depends on the capacities and skills of managers and employees. They are conventional professional skills, which do not have special environmental qualifications. Environmental management is, to a large extent, resource management. Therefore resource dependency theory and population economy can help to address more in detail the question of efficient use of material (natural) and immaterial (knowledge) resources. Moreover, if Ulhoi, Madsen and Hildebrandt (1996) are right, environmental and resource management will become an increasingly important competitive factor because efficient resource management develops along with the knowledge of the biosphere. The above-mentioned theories can contribute to a better understanding of the management of natural resources as strategic productive factors.

Environmental responsiveness is an ethically loaded question. In fact, lots of ink has been consumed to explain the differences of anthropocentric and ecocentric philosophical approaches to environment, but they have had little meaning in day to day business world. Challenges lie in the development of pragmatic ethical concepts and interrelationships that enable the fostering of effective ethical concern in society. If ethical considerations are regarded as "*stupid*", as some findings suggest, environmental management will remain on an unstable basis. The challenge is to make it understood that technological and economic development have some sense only if they contribute to the im-

provement of (interrelated) human and non human living conditions. The development of eco-efficient solutions has drawn wide interest, and it is easy to accept because it does not imply the rethinking of strategies. It makes business sense even to most conservative business as usual supporters. A great challenge is the reconsideration of strategies as perspectives and as positions, in a profitable way. So far, proposed competitively-oriented concepts, which often add a prefix “*environmental*” to conventional ways to pursue competitive advantage, have revealed their inefficiency, and cut across in front of environmental visioning. Environmental management may become a positive firm-specific or sector-wide strategic issue. The strengthening of its role in a profitable way should highlight both possibilities.

Companies adopt environmental measures that are coherent with the perception of environmental management as eco-efficiency-oriented activity. This development is based on the measurement of resource use and saving, which couple economic and environmental benefits. Companies adopt widespread tools that can be fitted in the existing strategic framework. The tools are based on technical or technological solutions, quantitative measurement, and the communication of results to authorities and other eventual interested parties, presumably shareholders. The raising of environmental management from operational gap to strategic level of organizational planning can be connected to the development of practical ways to follow the intended direction.

8.5.2 Managerial challenges

Corporate managers perceive environmental issues as compliance-driven technical questions. They fully accept this approach because they are influenced by prevailing social attitudes to environmental questions. Managers also sustain that efficient resource use makes economic and environmental sense, and implement standardized techniques in order to improve productive and logistical processes. They perceive that a standardized system is a comprehensively intelligent way to approach environmental management, and keep the risk of negative effects under control. What is the next step... forward?

Managers can keep adapting to regulations and public guidelines. The challenge is to take required environmental measures efficiently. In this approach, it is important to have up-dated knowledge of new technical and technological solutions. Information exchange is a precondition for efficient solutions. The institutions of the European Union, which are the primary reference points of companies, are working for the enhancement and diffusion of promising eco-efficient solutions. Companies can consider these possibilities extensively, and e.g. actively propose and participate in pilot projects.

The findings suggest that collaborative programs that attempt to redesign processes and procedures can be mutually advantageous to competitors. Resource sharing (transport vehicles) and a closed loop circulation of synthetic materials (plastic distribution cases) are examples of eco-efficient solutions that should not be rejected for mentality reasons. Solution-oriented partnerships are not limited to logistical processes, which can cover a vast geographic area. They can cover also e.g. the provision of energy and water in a local scale. Since companies seem to prefer sector-wide development, partnerships are consistent with their aim to share uncertainty.

Eco-efficiency is pursued primarily for economic reasons. A danger is that not all environmentally beneficial alternatives are taken seriously into account. Therefore it is important to assess, which solution guarantees the best combination of performances. Eco-efficiency risks to result in a translation of cost efficiency into environmental language, in which the environmental efficiency of solutions is taken for granted.

The eco-efficiency approach regards the natural environment as a resource. The next step towards higher environmental concern would be to consider it as a partner. This could lead to a more comprehensive consideration of eco-efficiency, and stimulate the implementation of small improvements everywhere. In fact, the range of improvements can go from small improvements, like the use of energy saving lamps, to more significant solutions regarding e.g. consumption, energy, mobility, bioarchitecture, etc. Local partnerships or negotiated agreements with authorities should not be ignored in the planning and assessment of the last-mentioned solutions. A reconsideration of eco-efficiency can be based on an extensive use of quantitative and qualitative knowledge. The changing of mindset should therefore shift from technical management to human resources management inside and outside company walls. The development of eco-efficiency becomes to resemble a question of organizational culture, where ways to encourage all organizational members to seek ways of minimising environmental impact should be sought. Economic rewarding of eco-efficient solutions, formal behavior norms and the framework built with the help of a standardised environmental management system may be sufficient to impede adverse behavior patterns, but are they powerful enough to harness the enthusiasm of managers and employees? There could be a need for stronger cultural signs to exploit the full internal change force potentialities.

The association of environmental benefit with the frugal use of costly resources has led to the quantitative measurement of consumption. The conviction is that improvements must be measurable. When the key environmental impact (often limited by regulatory standards) and consumption are being measured, the management faces the question, what next? More accurate

measurments relative to smaller units of measurment allow the setting of more detailed objectives. New meaningful measurment targets may not be easy to find⁸⁰. However, the use of qualitative indicators could support the use of quantitative indicators. For example, a management indicator could help to assess the capacity of management to reach objectives. Environmental condition indicators⁸¹, which are developed by governmental agencies, NGO's, scientific and research institutions, can be used by companies to set objectives, focusing e.g. on human related aspects, like landscape, history and culture.

While it is obvious that the future development of corporate environmental management will contain an eco-efficiency dimension, it must be asked, can the ethical side be strengthened without falling into anti-industrial rhetoric? Can we draft deeper solutions to common sense ethical observations like the one that we waste too much?

Companies focus on the building of technical capacities to improve their environmental performance. E.g. the coexistence of organic and conventional products is purely about enabling choice in the market. The development of commercially successful products excludes emphasis on environmental quality. Attempts to make consumers dissatisfied with products that do not include environmental considerations are perceived as initiatives that cannot be proposed. Reasons for that are twofold. First, the technocentric mitigation of environmental harm is scarcely used as a marketing argument. A message revealing that the company has installed water supply valves that reduce the rate of flow hardly convinces consumers. Second, market-oriented communication does not generate economic return, but can even risk causing negative reactions. Actions to guarantee a certain level of environmental concern in supply chain (like codes of conduct) are not communicated because they are diffused in the sector⁸². They are insurance, not marketing tools. Big retail trade holds a relatively strong power at the top of supply chain, as e.g. the Executive Director of Finfood observes. Industry sees that retail trade's sales promotion campaigns often emphasise price-based advertising (e.g. the report of Elin-tarviketeollisuus 2000 Work group), which does not encourage the pushing of quality arguments that consumers do not concretely appreciate and demand. It is, thus, to be asked whether the fate of environmental management hinges on consumers, and their self-interested belief that they draw benefit from it, or

⁸⁰ Not everything that counts can be counted, and not everything that can be counted counts (Albert Einstein).

⁸¹ Environmental condition indicators describe the quality of the external environment in which the company is located.

⁸² Codes of conduct and standardized systems as ISO 14001 are used as benchmarks by which to measure the commitment of the links of the supply chain.

from the capacity of public institutions to drive a replacement of no longer valid traditions and value systems?

The business-environment relationship can, however, be a key element of organizational existence. A vision of success would be based, in this case, on economically, socially and environmentally beneficial business, pursued by safe, healthful and regenerative products and processes. Companies should be ready to change their internal thought processes and ingrained behaviors to embrace new strategies and tools. The harnessing of ideas and enthusiasm among organizational members should be based on a clear and coherent vision of success. The transformation of strategies should aim at overcoming internal and external barriers unambiguously. Avenues for success should be sought by focusing equally on results and their valorization. Human factor makes difference in successful metamorphosis processes. Supply chain integration may not be enough, but the whole production cluster should pursue synergetic benefits.

In the meat processing sector, interrelationships between environment, health, safety, quality and well-being are immediate, and consumers can perceive that they share the obtained results. Scarce initial consensus can be increased by the diffusion of meaningful (not frightening or confusing) information, combined with good innovative and product display skills. Innovation can consist of technology transfer or the development of new business concepts, and it can aim at creating new market space, or increasing profitability in an existing market. Easy to use products, freshness, ready meals characterised by value adding combinations, the satisfaction of global tastes by local ingredients, the valorization of typical products⁸³ etc. can support emerging products and concepts. This kind of business development is in harmony with the increasing competitive importance of reputation, brand and knowledge (see e.g. Welford 2002).

An ulterior field of development regards eco-industrial development (EID) on local scale. In this research, development ideas can concern the case companies and their local agricultural suppliers. The concept of eco-industrial development contains a range of more or less formal and enduring interconnections between and among local companies. Eco-industrialism is about the recreation of community, first and foremost among businesses and those who work within them. It encourages innovation and new relationships (Cohen-Rosenthal 2003).

According to Cohen-Rosenthal (2003), eco-industrial development covers industrial parks⁸⁴ and estates, networks and relationships established for corre-

⁸³ The valorization of products in meat processing sector can be based especially on the protection of breeds and products that extol their quality.

⁸⁴ "[Eco-industrial park is] a community of manufacturing and service businesses located together on a common property. Member businesses seek enhanced environmental, economic and social per-

sponding purposes in industrial districts, and conscious partnering at the enterprise level. The idea of eco-industrial development lies in the belief that broad approaches are likely to have a more pronounced and continual aggregate effect than single projects. Eco-industrial development focuses on the particular geography, business climate, human potential and other factors that make places special, and valorizes factors that locally can lead to the simultaneous achievement of the broadest possible business and environmental success. Eco-industrial development is based on interconnections between partners that can range from materials to marketing. It values full asset use. A company could e.g. assess what resources it might give or share with the local community. Similar facilities situating in the same industrial district can learn from each other how to reduce emissions and waste, and how to use products and by-products (Cohen-Rosenthal 2003). Marketing-oriented eco-industrialism considers what should be produced to value local resources. An aim can be that of developing new products and services that meet determined market needs. The partners of eco-industrial relationship can e.g. jointly and purposefully develop business, focusing on customers with environmental supplier requirements, foreign market, new business concepts, or combinations of products. Environmental quality can become a distinguishing character of territorial marketing. Examples of product valorization through local attributes, like landscape and quality, can be found⁸⁵.

formance through collaboration in managing environmental and resource issues. An eco-industrial park also seeks benefits for neighbouring communities to assure that the net impact of its development is positive" (<http://glossary.eea.eu.int>).

⁸⁵ For example, the wine producers of a famous wine production area Chianti, situated in Tuscany, Italy, have made an agreement with local institutions to valorize their products. In fact, they do not sell only wine, but landscape and quality. Another development project in Tuscany, Italy, regards a set of pilot projects for the development of environmental certification (EMAS) at industrial district level.

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Interviews:

The Finnish meat processing company

Retail Sales Director 23.05.02

Catering Sales Director 24.05.02

Technical Director 29.05.02

Quality Director 29.05.02

Vice Managing Director 30.05.02

Business Area Director 30.05.02

Managing Director of the Procurement Company 30.05.02

Logistics Director 14.08.02

Business Area and R&D Director 14.08.02

Marketing Director 16.08.02

Production Line Director 16.08.02

Managing Director 07.10.02

Supply chain of the Finnish meat processing company

Retail trade Kesko Food Ltd, Development Director 07.08.02

Agricultural producer 10.03.03

Integrative interview

Finfood, Executive director 20.08.02

Interviews:

The Italian meat processing company Raspini spa

Quality Director 04.06.03; 05.02.04

Managing Director 04.06.03; 04.02.04

Retail Sales Director 05.02.04

Supply chain of the Italian meat processing company

Slaughterhouse Carni Dock, Managing Director and Quality Director 05.02.04

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- “Biennale di Eco-efficienza”, 4-5.6.2003 Turin, Italy.
- IX Regional Conference on Environment: “The Way of Eco-efficiency – a Winning Strategy for Economy and Environment”. 2-3.4.2004, Florence, Italy.

APPENDIX 1: INTERVIEW QUESTION SCHEME

QUESTION AREAS

Question areas refer to the figure 1.1 (Main concepts of research framework and their relevance to research questions), section 1.3.

The letter symbols are used in the question scheme to indicate different question areas.

Question areas relative to the research question I:

1. **What are the effective motives to integrate (not to integrate) environmental management into the activities of a business company, and why?**
 - A) Key agents of environmental change in society
 - B) Change forces
 - C) Motives

Question area relative to the research question II:

How environmental actions influence daily organizational life and long-term course of action?

- D) Actions
- E)

INTERVIEW TOPICS

The presentation of interviewee: a short description of tasks and the fields of responsibility.

1. Why is environmental management important to the company? (C)
2. How does the company sees the sector where it operates (meat-processing sector) from the point of view of environmental management? (A)
3. How does environmental management influence organizational activities? (D)
4. How do environmental issues affect own tasks? (D)
5. How does environmental management affect the stakeholder relationships relative to own tasks? (D)
6. What are the most important environmental stakeholder relationships of the company? (B)
7. What are the objectives of environmental stakeholder relationships? (D)
8. What external expectations/demands and significant tendencies relative to environmental management are perceived? (A)

9. What are your personal opinions about environmental issues (generally speaking and in relation to own work)? (B)
10. What is your opinion about the environmental management of your company? (C)
11. What is the company trying to achieve by environmental management? (C)
12. What positive/negative effects has environmental management caused or can cause to your company? (D)

LIST OF SUBTOPICS

Question area A) interview questions 2 and 8

- Industry-contingent perceptions and beliefs of the organization about industry - natural environment relationship?
- How is the environmental management of meat processing sector evaluated?
- The food sector tendencies: quality, security, GM/organic production, ecology as future challenge, farm animal welfare and legislative development?
- The role of business organizations in resolving environmental problems; the role of the company in the sector?
- Goal contrasts: goals that do not belong to business organizations; growth, profitability vs. ecology?
- External environmental demand: whose vision/criteria/assessment system dominates and what expectations/requirements are perceived?
- Regulative bodies, resource suppliers, market, society as perceived drivers for/barriers to environmental responsiveness?

Question area B) interview questions 6 and 9

- Cooperation vs. conflict: what are the relationships like (partnerships for mutual advantage, control)?
- Supporting agencies?
- Whose opinion does not count?
- Ideological vs. commercial and technical understanding of collaborators?
- Local problems and responses (giving/sharing resources)?
- Conceptual internalization?
- Instrumental environmentalism?
- Issues that are important/preferences?
- Depersonalization: ethical judgements placed by technical and commercial considerations?
- Personal vs. stakeholder-oriented concern (emotional, ecological, ethical, political, commercial concern)?

Question area C) interview questions 1, 10 and 11

- Sources of environmental values and goals, internalization (bias) and consequent pragmatic approach (means)?
- Mixed motivations; evaluation criteria for environmental actions: economic, ethical, social, image (too much emphasis on environment a mistake; isolated responses to be exploited in the short term); marketing?
- How does organization affect individual values and goals (and vice versa); conflicts?
- External influence on values, beliefs and professional behavior?
- External values - professional behavior inconsistencies/opportunities?
- How demanding environmental efforts are?
- Ethical dimension and its relationship to self-interest; avoid harm vs. business benefit (the company/whole sector)?

Question area D) interview questions 3, 4, 5, 7 and 12

- How are environmental improvements designed?
- Degree of change, irreversibility/flexibility, intensity and longevity of efforts, innovation?
- Strategic importance of environmental management (position, way of doing)?
- Synergies/tradeoffs created?
- The title of the person in charge of environmental issues (vice president, quality manager, environmental manager)?
- The main task of the manager in charge of environmental issues (control of environmental costs, consultation of stakeholders and efforts to satisfy their needs, seeking of alliances in order to improve environmental performance, teaching environmental issues to top management, coordinate r&d, search for new distribution channels for environmentally benign products, customer management (image, quality, impression)?
- Are environmental issues a part of job descriptions (and rewards) of all organizational members?
- Is the corporate environmental approach issue-contingent/global?
- Procedures; scale of concern; discontinuity; strongest interrelationships, standards and systems (recycling, reuse, processes, raw material substitution, process equipment redesign, resources allocated, education, training, rewards)?
- Past experiences: what has worked (achievements)/not worked (failures), and why?
- Profitability problems, difficulties to define objectives, lack of environmentally feasible solutions, human resources, resistance of stake-

holders and resource management vs. ethical management of human activities?

- How important is it to have an environmental program and make it public?
- What responses have been obtained and what is expected/needed?
- Suggested forms of support: tax incentives, green labels, soft loans, consultancy, the relaxation of procedures, regulations?
- Image, learning, synergy and mutually reinforcing actions, legitimacy?

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Suomen pankkikriisin taustatekijät, luonne ja kriisinhoito erityisesti säästöpankeissa
- A-2:2004 Seppo Ristilehto
Liiketoimintashokki
Tapaustutkimus laivanrakennus- ja autoteollisuusalan yritysten kriisiratkaisuista ja ohjaustoimenpiteistä
- A-3:2004 Tomi J. Kallio
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- A-4:2004 Zsuzsanna Vincze
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- A-5:2004 Anni Paalumäki
Keltaisella johdetut. Artefaktit, johtaminen ja organisaation kulttuurinen identiteetti
- A-6:2004** Eila Heinonen
Aktiivinen harrastus työn siirtymän ja kompensaation ilmentymänä. Case matkailuoppaat
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Empirical Evidence on International Outsourcing in Production
- A-10:2004 Esa Puolamäki
Strategic Management Accounting Constructions in Organisations. A Structuration Analysis of Two Divisional Strategy Processes
- A-11:2004 Jani Erola
A Remedy with Rationalities. Improved Rational Action Theory with Empirical Content as a Solution to the Fallacies in Sociology

- A-12:2004 Tomi Viitala
Tax Treatment of Investment Funds and Their Investors within
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