PROMOTING ETHICAL PRINCIPLES IN CONSTRUCTION AND REAL ESTATE BUSINESS

Heimo VALTONEN¹ Mikko NOUSIAINEN²

¹Senate Properties, P.O.Box 1054, FI-70101 Kuopio, Finland, heimo.valtonen@senaatti.fi ²Helsinki University of Technology, Construction Economics and Management, P.O.Box 9800, FI-02015 HUT, Finland, mikko.nousiainen@hut.fi

Keywords: ethics, corporate social responsibility, real estate, construction, best practices

Abstract

Today's construction and real estate companies have in most cases both the knowledge and the technology to minimize environmental impacts during a building's life cycle, but unfortunately environmental issues are often forgotten or overridden by the economic arguments or short-term economic planning and quarterly business One obvious reason for this is the lack of ethics or different ethical principles among various construction or real estate companies. Ethics constitute the foundation of responsible business, for example sustainability reporting, and are still essentially voluntary.

This study describes how Senate Properties, the biggest real estate owner in Finland, has included ethical principles as a part of its operations, and the way these principles have been applied to a company's partnership program and co-operation with clients. In addition, the study introduces the main reasons for Senate Properties' decision to focus on corporate responsibility. These include, among others a company's ownership base, the opportunity to improve buildings' quality, corporate responsibility, and customers' demands. Corporate responsibility is seen as a sign of a strong customer oriented approach.

The study shows that corporate responsibility, one of the four strategic goals of Senate Properties, has had positive influence on employees' attitudes. Employees perceive corporate responsibility and environmental issues as important and value the environmentally friendly operation practices. Employees also feel that their personal influence in carrying out a company's corporate responsibility is exiguous, and thus are pleased that Senate Properties' ethical principles are implemented throughout supply chain in all everyday operations.

Similarly strategic partners, such as facility service providers and construction companies have started to follow Senate Properties ethical principles, harmonizing their operation practices and codes of conduct to those used by Senate Properties. One clear example of this is the ecological construction method, in which environmental goals are set at the beginning of the project. During the project, each project party works to fulfil these shared goals. Senate Properties also encourages facility users to pay attention to environmental management. For instance, energy issues are discussed several times per year with the user.

In conclusion, the study illustrates that a real estate company, especially a large one, can exert influence in other companies' attitudes and ethical principles. A company can also promote pro-environmental and ethical practices in general in real estate and construction business. A major challenge continues to the motivating facility users to work for the environment and enlisting them to pursue the same environmental goals. If partner companies and users share the same ethical values, principles and codes of conduct, and succeed in sharing these with their employees, companies are able to reduce environmental impacts more comprehensively during the buildings' life cycle.

1. Introduction

For today's modern and forward-looking companies, corporate social responsibility (CSR) is a must. Companies have increasingly focused on their environmental management as a part of their CSR. For instance, the worldwide use of ISO 14001 environmental management certificate exploded by 34 per cent in year 2003 (ISO 2004). The importance of environmental issues has also been recognized in the construction and real estate sectors both nationally and internationally, and by governments and professional organisations (e.g.DETR 2000, Rakli 2004). Several tools have been developed to assess and compare buildings' environmental performance, and some of them are increasingly used. In the United States, the use of the building environmental certification system (LEED) has leaped up over 30 per cent in 2003 and sustainable, or 'green', buildings are a hot topic in the real estate sector (Building Design and Constructions 2004). Also end-users' emphasize building and facility management more and more often in their environmental management (Nousiainen & Junnila 2005). Furthermore, sustainability is currently typically one of the notable themes of construction and real estate conferences (e.g. EuroFM 2004 Copenhagen, EuroFM 2005 Frankfurt, CIB W70 2004 Hong Kong, CIBW70 2005 Helsinki). During the last decade, a great many studies have investigated the environmental impacts of the construction and real estate sectors, and in addition sustainability has been recognized as an important research area for the future (Elle et al. 2004).

As noted earlier, environmental issues are often overridden by economic planning, and quarterly business. One key question is how one encourages companies to "do the right thing" environmentally when it is not their benefit to do so (Gorman et al. 2000). Especially in the construction and real estate sectors "wrong doing" may cause severe problems, because buildings' life spans are remarkably long. One obvious reason that environmental issues are not taken into account is a lack of similar ethical principles among various construction and real estate companies and clients (facility users). The opinion of consumers is quite often precious one: real estate companies have to do that for which consumers are willing to pay.

Many environmental issues arise in the maintenance phase of real estate. For instance in energy consumption and carbon dioxide emissions, these factors are depend on the behaviour of users as well as personnel of facility maintenance companies. In the real estate business, no one can single-handedly reduce energy consumption by itself or by a particular method: good collaboration is needed among all the parties.

This study describes how a Finnish real estate company, Senate Properties, has included ethical principles in its operations. In addition, the study introduces the primary reasons for Senate Properties' decision to focus on corporate responsibility. The paper briefly introduces various ethical frameworks and then focuses on the case company and its good practices. The paper ends with an evaluation of Senate properties success and discussion of these findings. The study is largely based on data obtained from the Finnish real estate company, Senate Properties. The data includes most importantly, the knowledge gained by close, and long-term involvement in Senate Properties' operations and development. Other material used included company's public information, such as CSR reports, Internet pages and annual reports, but also some intercompany data, such as the results of a personnel survey. The study follows freely a case study methodology.

2. Ethical Frameworks

2.1. Definitions

The word ethics has several meanings (Martin & Schinzinger 2005). However, in this paper ethics is defined briefly as "the discipline concerned with what is morally good and bad, right and wrong. The term is also applied to any system or theory of moral values or principles" (Encyclopædia Britannica). Ethical principles are defined as general guidelines which declare the values on which decisions and actions should be based. Sometimes terms "ethical codes", "codes of conducts" or "corporate governance" are used as synonyms for ethical principles, but these, especially code of conduct, can include very detailed instructions in which case they differ from ethical principles. Organizations may gain several advantages if they use ethical principles. Principles support decision making on all organizational levels. An employee often has to consider different solutions, e.g. compare costs to the environmental burden, without knowing which is more valuable. In cases like this, clear ethical principles could offer a solid foundation for employee to choose better environmental solution. Ethical principles are also a tool for managers to ensure that the whole organization operates similarly because principles are usually quite short and therefore easy to communicate and remember. This is especially important when operating with sub-contractors and partners who are required to operate according to the company's values. The use of ethical principles helps to guarantee seamless cooperation between the companies.

2.2. General ethical frameworks

Many ethical frameworks exist, and ethics can be viewed from several standpoints. One of the meaningful frameworks considered in this study is human-centered, or anthropocentric ethics, which focus exclusively on the benefits of the natural environment to humans and threats to humans' presented by the destruction of nature (Martin & Schinzinger 2005). In a contrast to human-centricity are sentient-centered ethics, a perspective view that, which all conscious animals having inherent worth, and the biocentric view, in which a life centered ethics regards all living organisms as having inherent worth. Ecocentric view states that we have an obligation to promote the health of our ecosystem, and that "the thing is right when it tends to

preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." (Martin & Schinzinger 2005). Other noteworthy theories are egoism and utilitarianism. Egoism holds that the good is based on the pursuit of self-interest (Encyclopædia Britannica 2005). According to utilitarianism, which is part of normative ethics, good consequences for human beings should be maximized. However, maximization should not be done without the consideration of the cost to others or the environment.

One way to classify ethical frameworks is to divide ethics into three categories. Descriptive ethics is a study of moral beliefs and practices, and it describes concepts of right and wrong. Normative ethics aims to solve questions of right and wrong; it indicates, creates and defends some moral values, and gives ethical norms. Meta-ethics analyzes the significances and characteristics of ethical theories and claims, and their validity. It is, in other words, the examination of background theories of the ethics.

Environmental ethics can be defined to be a study of moral issues concerning the environment (Martin & Schinzinger 2005). In other words, environmental ethics is the ethical relationship between human beings and the environment in which they live (TheFreeDictionary.com 2005). According to Vesilund and Gunn (1998), in the last century it has came to be accepted that people have some obligations toward the non-human world in contrast to earlier or classical ethics that were concerned exclusively with relations between humans. Interestingly, Vesilund and Gunn continue saying "We think that we should care about the environment, because it seems to be the right thing to do. But there seems to be no ethical theory that will explain this attitude, nor does there seem to be a rational ethical argument for why everyone ought to behave in this way." However, this is only one view of environmental ethics, and cannot be understood in such a way that environmental ethics have no role at all. In practice, there are many ethical decisions that human beings make with respect to the environment.

2.3. Ethics in the construction and real estate sector

In the construction and real estate sector the issue of ethics is not as regularly discussed as in general business ethics; particularly ethical issues related to facility management are less frequently argued. However, Grimshaw (2001) writes about ethics in facilities management and declares that the raising of ethical awareness is important to facilities management's healthy growth. More generally, normative ethics appear to be suitable for the construction and real estate sectors since typically norms, laws and regulations, establish a base level for business. But creating, renewing and specifying norms are not enough. Descriptive ethics i.e. ethical views and descriptions need to be included in the foundation of the norms. The use of meta-ethics, however, seems to be less easily adapted to practice.

Ethics is a very important issue in the construction and real estate sectors, because the role of buildings and infrastructure is significant both for society and for individual companies and persons. When considering a building's life cycle, construction and use phases are the most capital intensive ones and most environmental impacts result from these phases. Especially the use phase is of great significance, at least in office buildings (Junnila 2004). For several reasons the importance of such ethical consideration is not insignificant during planning and construction stages as well as when buildings are managed. Similarly, thorough and regular maintenance is a key issue when pursuing economically and environmentally sustainable buildings. Because, the construction phase involves dozens of sub-contractors, and production of facility services has typically been outsourced, sub-contractors and service providers should adopt the same ethical principles and workings as those of the constructor/property owner. Especially for a property owner, whose strategy is to own and lease buildings, it is extremely important that things are done "right" in all life-cycle phases. This is crucial for a company, since to its business is based on those facilities. Therefore, it is totally understandable that property owners are eager to share their strategically important workings, practices and principles with their suppliers.

3. Presenting the Case Company

3.1. Background

The case company, Senate Properties, is a government owned enterprise responsible for managing and letting the property assets of the Finnish state. Senate Properties controls about half of the property assets of the Finnish State, and is also Finland's largest property asset manager. The turnover of the company in 2004 was 537 million euro, its property assets were valued to be 5,3 billion euro, and it has 4500 leaseholders. Senate Properties employs 257 people. The investments of Senate Properties in 2004 were 63 percent, 337 million euro, of total revenue. Renovation investments accounted for 54 percent of all investments.

The property stock consists of about 8 million square metres in 11 300 buildings. Senate Properties lets, maintains and develops its property stock on market terms, but most of the premises are let by government bodies. However, Senate Properties does not market its properties in the sense of which marketing is typically understood, because of its clientele and status. Senate Properties is responsible for safeguarding the efficient use and development of the properties it manages and for ensuring that they retain their usability and value. As a business enterprise, Senate Properties finances its own operations and is not dependent on the state budget. Senate Properties acquires new premises for its clients by purchase or by new development. The company aims to be a reliable partner in all property solutions and services.

3.2. The history and development of Senate Properties

The history of Senate Properties goes back to almost 200 years ago. Its name and organization has slightly changed a couple of times, but many of its duties really began to change about 20 years ago. The biggest changes happened in 1995. Prior to that the services were free of charge for the user organisations. The users did not need to pay any rent or make payments for anything and the National Board of Public Building (the name of Senate Properties' predecessor) built them new spaces, and maintained them without any compensation. It became clear that this kind of situation could not be permanent. In 1995 all maintenance services of the company were outsourced and all its services became subject to a charge as well. At that time the need to re-evaluate a company's whole value creation process became obvious as did the need for reorganize the strategic planning. In brief, Senate Properties has been transformed from a traditional property management service organization to a truly service-oriented organization where all value producers are in balance. Strategic focal points are further described in chapter 4.1.

3.3. The development of corporate social responsibility

Senate Properties (and its predecessor) had long been aware of the importance of environmental issues. A preliminary study of environmental management was carried out in 1999, but even then environmental management was not considered strategic issue. Subsequently, however, development projects in environmental issues were carried out till 2003, as CSR became seen as more important issue than it had been in 1999. A decision to collect and report environmental data according to Global Reporting Initiative (GRI) was made by Senate Properties. Together the reporting environmental contact person network was established to organize company environmental management, and to involve the whole staff in new company-wide strategy. The staff had a chance to participate in the preparation of the targets and strategies. Also, the development of the environmental management system was started. The system was designed in a way that it enabled ISO 14001 certification. The environmental report and data were of great importance in the strategy process where social responsibility was decided to be one of the most important focuses of strategy at least to the year 2007.

Both internal and external drivers encouraged Senate Properties to pay attention to environmental issues. External drivers were 1) a chance to be a forerunner in its own field 2) a need to improve Senate Properties' company image among its customers as a socially responsible company 3) pressure from the society to tighten demands for the real estate sector. The most essential internal drivers for the development were 1) risk management: the need to minimize real estate risks and to be prepared for changes in the business environment (real estate development) 2) to motivate the personnel to do "the right thing". Senate Properties now aims at internal and external advantages for its CSR. These include improvements in stakeholder dialogue and in the company image, and, above all, the gaining of competitive advantage by investing in development. The reducing of negative environmental impacts and society's informal "licence to operate" are considered important as well corporate responsibility is seen as a sign of a strong customer-oriented approach. Now in 2005, after roughly two years, Senate Properties aspires to ISO 14001 certification.

4. Strategy for CSR and Ethical Principles

4.1. Social responsibility as a focal point

Senate Properties' acquisitions are driven by client needs and life cycle thinking. As a result of the transformation process, a particular vision for CSR has been approved:

"Senate Properties' business operations are ecologically and socially sound, as well as profitable. Our clients perceive our operations to be socially responsible. In our field of business, we promote the use of innovative operational models and solutions that are financially, socially and ecologically responsible. We consider the social and environmental impact of our operations in our decisionmaking, management and everyday operational processes. We develop the responsibility of our operations by continuously assessing it in an open dialogue with our stakeholders." (Senate Properties 2005)

Senate Properties defined four focal points for the years 2004-2007 in order to achieve its mission, vision and financial goals, and to change its value creation process towards that of a genuine service organization. The focal points are 1) social responsibility as a base value for operations 2) controlled expansion of service offerings 3) using networked business model 4) transformation of skills and knowledge. Social responsibility as a base value for operations is the most important one, and it is now briefly discussed.

As a commercial enterprise serving the government, and as a manager of the government's property assets, Senate Properties considers ethical issues important and wants to operate on a socially responsible basis. This responsibility has three perspectives, financial, social and environmental. First, financial social responsibility means that the services on offer must be priced according to commercial principles. In practice, this means that letting, as well as the related service operations, are priced so that the capital invested yields a return equivalent to its alternative use. In addition, this return should correspond to life cycle expenses. Secondly, company's environmental strategy underlines the principles of sustainable development in all operations, as well as the importance of managing the environmental impacts and life cycle expenses of the premises. In practice, this means that sustainable development objectives related to life cycle, and environment play a particularly important role in investments, as well as in energy saving and preventive maintenance. Third, operations must also be socially responsible in relation to its stakeholders. To ensure this, Senate Properties has defined a set of ethical principles that must be observed and followed by its employees. It has also committed itself to following sound management principles and to ensuring the use of an internal monitoring process. The key strategic objective relating to social responsibility is the implementation of a model of varying rates of return in all lines of business. Other challenges include noting the risks of special-purpose properties, the divestment of vacant properties and environmental responsibilities.

4.2. Senate Properties' ethical principles

Ethical principles are based on the one hand on the values of Senate Properties and on the other hand on the values and ethics of public administration, and on the notion of a democratic state. For example, the government's personnel policy defines the values of public administration as follows: productivity of operations, quality and strong expertise, the principle of service, openness, trust, equality, impartiality, independence and responsibility. The government's values provide the basis for Senate Properties' own values, which then support its operations. These values are important for its business operations, as most clients are part of public administration. Values are an essential part of directing resources and creating a common spirit and way of thinking. Based on the values defined, Senate Properties creates ethically sound practices, procedures and instructions. Dialogue with the staff has confirmed that work at Senate Properties is based on the following core values and principles:

- "As a member of staff at Senate Properties I am: trustworthy and responsible, willing to serve and be innovative and to strive for continuous improvement"
- The ethical principles contain among other things instructions for giving and receiving gifts and for travelling at the cost of other companies and for the use of representation expenses
- A very important ethical principle in the business is the use of existing buildings. One always has to
 explore possibilities to avoid building a new building if there is a possibility of using an existing one.
 In most cases it does not matter who owns the building.
- Environmental effects of the building and its utilization are declared to the customer in every project
 In all decision-making both social factors and environmental impact are considered alongside economic factors
- The decisions are made by taking into consideration building's life cycle costs in so far as this is possible

As can be seen, Senate Properties does not hew to just a single list of ethical principles. The operation is based both on values and on strategic choices. Especially from the CSR point of view, the previous mentioned focal points are strong and essential guiding factors.

5. Ethical Principles in Practice

5.1. Senate Properties' ecological construction method

By using ecological construction method the principles of ecologically sound construction are applied in all basic repair and new building projects. One of the main elements of the method is its environmental objectives which are planned for the project at very beginning. Objectives are set for both the construction and for the building's use phase as well as for its later phases. The most important objectives are energy consumption and building convertibility, but attention is also paid to indoor air quality, healthfulness of the building materials and building maintenance. A service life target is set for projects, and service life plans for structural elements are drawn up. During the project each project party works to fulfill these shared goals.

As can be seen in Figure 1., environmental aspects are incorporated into all stages of the construction process. All parties, especially designers and construction companies, are required to take those into account, and also to provide environmental data for the builder in various stages. Furthermore, the facility user's understanding forward environmental aspects increases during the project, thus the user's role is especially important in the design stage. After the project is completed, he extend to which environmental objectives have been met is assessed. Feedback inquiries are sent to contractors and to main subcontractors, and a feedback seminar is kept. Other aspects of construction process are evaluated as well.

5.2. Partnership

As a major service purchaser and investor in its own right, Senate Properties can further the adoption of environmentally responsible business practices by service providers. Senate Properties has a significant positive impact on regional economies in Finland, as investments lead to a large scale job creation in planning, surveillance and construction throughout the country. Furthermore, Senate Properties purchases cleaning and maintenance services from external partners, as well as and energy and water from local providers. (Senate Properties 2005)

Senate Properties requires partners to follow its principles and its values and this requirement is also written into contracts. In addition, an environmental management system and a quality management system are required from every partner. Furthermore, partners must require the same prerequisites from their



Figure 1.. Ecological construction method.

subcontractors. Senate Properties and partners have a reward – sanction contract on the basis of which an extra bonus is paid to partners who achieve agreed upon targets. On the other hand, a partner is obligated to give a reward to Senate Properties if targets are not reached. Environmental considerations in term-of-purchase agreements are also used. Operation practices are developed in collaboration with the partner companies both in general and from the environmental management point of view. Partners are required to participate in development projects with Senate Properties and sometimes also with its customers. Partners have also participated in negotiations with Senate Properties and its customers and given customers information and advice about environmental issues. One issue that relates to co-operation with the partner companies is the regularly done self-assessment. Also, Senate Properties encourages facility users to pay attention to environmental management. For instance energy issues are discussed several times a year with the user in the course of routine discussions.

5.3. Involving the employees

CSR has been promoted within the company, and all facility managers are aware of the CSR. Facility managers also know how to adapt CSR to practice. Environmental management is carried out by an environment contact person system, which guarantees that environmental principles are implemented and taken into account countrywide in all projects. The proper actions are verified by internal auditing. In all personnel training meetings CSR and particularly environmental issues have been brought out. In addition, environmental handbook has been published. The handbook is mainly supposed to be used in-house, but it is also divided into customers as necessary.

Personnel accept the company's CSR strategies, and want to participate in carrying out them. According to a personnel survey, more than 80 per cent of employees considered CSR as an important issue. The results of the survey also show that personnel feel they don't have enough opportunities to execute CSR in their own work. This can be seen as a strong sign of commitment.

5.4. Processes

Environmental issues have been implemented into all processes and such processes are continuously developed and updated. For instance, company's competing rules are transparent, since decision-making criteria are openly communicated, and CSR metrics have been developed for buildings' maintenance phase. The reducing of energy consumption is the most important individual environmental aspect, but Senate Properties cannot only restrict its operations to this reduction. In that case the client would be given a wrong and one-sided picture of the environmentally friendly practices, which would not support the client's comprehensive environmental management.

Another example of the company's environmentally friendly processes is an effort to find suitable office for its customer. First of all, Senate Properties aims to provide expertise that evaluate customer's space needs. If more office space is needed, then solutions, such as leasing office space or new construction, are offered. If some other real estate owner has suitable office space to fulfil customer's needs, Senate Properties is ready to guide the customer to these premises and thus avoid unnecessary construction. For instance, in some cases customers thought that they would need more office space. However, after the office space analyses

by Optimaze.net-method of Senate Properties it was found that by renovations and rearrangements their existing offices were capable of fulfilling new space needs. Both environmental and financial resources thus were saved and the operation practices were ethically sound, since solutions are based on customer's real needs. In these examples it would have been easy to extend customers' premises, and to improve Senate Properties business.

6. Evaluation of Promotion of Ethical Principles

Senate Properties has been able to promote the appreciation of environmental issues in the Finnish construction and real estate sectors. One clear sign of progress in general is the company's positive image in the Finnish media and especially the stories about its CSR. This is known on the basis of continuous media follow-up. Also both of the CSR reports have been awarded. In an image survey from the year 2003 CSR was seen as the central part of operations, and the experts in the real estate and construction sectors appreciated the significance of CSR in Senate Properties' operations.

More importantly, aside the media, customers are more and more interested in environmental and CSR issues. Typically, customers' questions to Senate Properties concern the meaning of CSR, i.e. why these issues are seen as important. Customers have also expressed interest in the Senate Properties' environmental handbook. Environmentally certified new buildings have been constructed and existing buildings have been assessed according to the Finnish buildings environmental assessment method. Energy consumption has decreased especially for those buildings where the bonus-sanction model is in use and customer satisfaction has improved after the implementation of strategic partnership agreements. Several successful development projects have been carried out with the customers, and results have been encouraging both in energy savings and in recycling. Continuous improvement is still needed.

7. Discussion and Conclusions

The study described examples of how one real estate company, Senate Properties, has included ethical principles as a part of its operations, and how these principles have been adapted to a company's partnership program and to co-operation with the clients.

It seems that a company can promote the environmental management and CSR knowledge of other companies in two ways. The first of these is to present environmental requirements to suppliers and partners. By doing so, other companies are forced to pay attention to environmental or CSR issues and to work for development if they have not done so earlier. Increased environmental plans then happen through the competition between companies, and this is probably especially true when the purchaser has a large market share. This development process leads to the use of environmental management systems and likely to more environmentally friendly operation practices. Alternatively, a purchaser company can guide and encourage suppliers to adapt its values and principles in order to promote generally acceptable principles.

Secondly, a company can raise the general standards in its business sector by communicating about its CSR and reiterating the importance of environmental issues. Among real estate companies example of good practices can be shown to property owners, facility manager companies, and facility service providers. In the construction sector supply chains are longer which then involve more companies. Further, the significance of the raising of the standards in relation to the customers should not be forgotten. When clients have more knowledge about CSR issues they are proven to become interested in their operations. Companies are also more conscious of their abilities to require better environmental performance from real estate companies.

Unfortunately, at least in Finland, facility users seldom require environmental services from real estate companies. However, according to our experience, many users would like to receive environmental services from facility companies, if they were made available. Still, users' are not yet willing to pay for environmental services. Unlike users, Finnish facility service providers seem to be more active in taking environmental issues into account and minimizing negative environmental impacts.

One problem in the real estate business is the fact that time perspectives between companies differ. Commonly the user's time perspective is relatively short compared to buildings' life cycle, since the longest lease agreements are typically for fifteen years. However, today's buildings are built for service life of one hundred years. A property owner whose strategy is to lease and maintain buildings over a long period emphasizes sustainability issues more than a user or real estate asset management company who operate in short-terms. Such different time perspectives are the reason for conflict of interest between property owner and user, since the benefits of sustainable operation practices are gained during the life cycle. Shared ethical principles could well have an affect to differences this sort.

One major challenge for real estate business is how to motivate facility users to work for the environment and to engage them in pursuit of the environmental goals of facility companies. Another challenge is how to get customers require pro-environmental solutions from facility companies, even if they were more expensive. Third challenge is to merge companies' different values in a way that each company operates according the same principles. One solution could be the broader use of absolute rent in lease agreements, when the user would became responsible for paying the maintenance costs. If the gross rent were used then facility user's motivation to minimize consumption is probably smaller and the significance of ethical principles is larger. Another solution could be new kind of contracts. Senate Properties has similar challenges, as mentioned earlier, but the greatest future challenge is to decrease company's carbon dioxide emissions (per cubic meter) to the level of 1990's. The precondition for the reaching of this goal is a co-operation with the users and with facility service providers. In addition, common responsible operating principles must be found. Here again the most important issue is to motivate the facility users to effectuate their own energy conservation. The users utilize the heat, electricity and water, and they are practically responsible also for all waste production in the buildings. The property owner who pays the operational costs has strong economic reason to interest users in an ethical attitude.

Based on the Senate Properties' experiences some advice may be given. A very good way to start developing CSR is to use generally known guidelines or standards. This is a solid base for the collation of environmental data, which in turn provides important insight into the company's present performance as well as targets for development. The significance of co-operation with other companies should not be underestimated. One issue to which attention needs to be paid in future is better communication of CSR issues. Such communication is also of great importance in dialogue with the academy and public to raise general knowledge about the way their actions affect the environment.

The results presented in this paper cannot be generalised to other market areas, nor to other companies. The nature of the paper was very descriptive, and it intended to exemplify how a major real estate company in its market area could promote CSR and the use of ethical principles in its business sector. A case study methodology was used freely as a research method, and the study was mostly based on very close attention to the development process. However, the paper indeed was intended to describe the best practices. Senate Properties is a pioneer in carrying out CSR in Finnish construction and real estate sectors and a central actor in the Finnish property market. Thus, it is possible to think that the presented practices and drivers for CSR could have a significant effect on other companies.

To conclude, the experiences presented in this study should encourage other major real estate and construction companies to be aware of their opportunities to promote environmentally sound practices in their own countries or market areas. Investing in CSR and environmental management should be seen as broad perspective for foster the environmentally sound development of other companies. Of course, the main drivers for CSR are in a company's own business and its success, but it should be noted that these two motivations are not in conflict with each other.

References

Building Design and Constructions. 2004. Progress Report on Sustainability. Reed Business Information. Also available online at: http://www.bdcmag.com/newstrends/bdc04White_paper.pdf.

Encyclopædia Britannica. 2005. Encyclopædia Britannica Online. <http://search.eb.com/eb/article?tocld=9106054> and <http://search.eb.com/eb/article?tocld=9032086> [Accessed January 30, 2005].

DETR. 2000. Building better quality of life – a strategy for sustainable construction. DETR. London. Available at: http://www.dti.gov.uk/construction/sustain/bql/pdf/sus_cons.pdf. Accessed December 14, 2004.

Elle, M., Engelmark, J., Jorgensen, B., Koch, K., Baslev Nielsen, S., Vestergaard, F. 2004 Managing facilities in a Scandinavian manner: creating a research agenda. Facilities, Vol. 22, No.11/12, pp. 311-316. ISSN 0263-2772.

Gorman, M.E. & Mehalik M.M & Werhave P.H. 2000. Ethical and Environmental Challenge to Engineering. New Jersey. Prentice-Hall, Inc. 269 p. ISBN 0-13-011328-X

Grimshaw, B. 2001. Ethical issues and agendas, Facilities, Vol. 19 No. 1/2. pp. 43-51.

International Organization for Standardization (ISO). 2004. The ISO Survey of ISO 9001:2000 and ISO 14001 Certificates - 2003. Available at: http://www.iso.org/iso/en/iso9000-14000/pdf/survey2003.pdf. Accessed at September 17, 2004.

Junnila, S. 2004. The Environmental Impact of an Office Building Throughout Its Life Cycle. Civil and Environmental Engineering. Helsinki University of Technology. Academic dissertations. http://lib.hut.fi/Diss/, accessed January, 2005.

Martin, M. & Schinzinger, R. 2005. Ethics in Engineering. 4th edition. New York. McGraw-Hill Professional. 352 p. ISBN 0072831154.

Nousiainen, M., Junnila, S. 2005. The Growth of Environmental Requirements in International Facility Management. CIB 2005 Helsinki Joint Symposium. In print.

Rakli. 2004. The Finnish Association of Building Owners and Construction Clients. Vision 2010. Available at: http://www.rakli.fi/english/vision-slides.ppt. Accessed December 15, 2004.

Senate Properties. 2005. Internet pages. Online. <www.senaatti.fi>. Accessed February 20, 2005.

TheFreeDictionary.com. 2005. Online. http://encyclopedia.thefreedictionary.com/Environmental+ethics Accessed February 26, 2005.

Vesilund, P.A, & Gunn, A.S. Engineering. 1998. Ethics, and the Environment. Cambridge. Cambridge University Press. 314 p. ISBN 0-521-158112-5.