

# SUSTAINABILITY IN FINNISH REHABILITATION CENTERS

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## Abstract

**Purpose:** The aim of this paper is to introduce the present state of sustainable development strategies of rehabilitation centers in Finland.

**Methodology:** The triple bottom line approach to sustainability is used to understand the sustainability of Finnish rehabilitation centers. The data from the rehabilitation centers is gathered with walkthrough audits and interviews in 6 case rehabilitation centers in Finland. Additionally a sustainability matrix was filled using the data from the web-pages of all 100 Finnish rehabilitation centers.

**Findings:** The findings suggest that the importance of sustainability related issues is well acknowledged in Finnish rehabilitation centers but they lack the knowledge, ability and monetary resources to carry out large scale alterations in the premises and processes. Thus improving the sustainability should be done in small steps and must be well justified in monetary terms.

**Research limitation:** The research findings are limited to Finnish context and the material from interviews and walk-through audits to just 6 Finnish rehabilitation centers. Still, the experiences from other Finnish rehabilitation centers suggest that the results may quite well be generalized to at least the Finnish context.

**Originality/value:** Sustainability of rehabilitation centers has not been studied neither in the Finnish or international context, even though the realm of rehabilitation is vast and the sustainability related challenges remarkable.

**Key words:** sustainability, rehabilitation centers, Finland,

## Introduction

There are about one hundred rehabilitation centers in Finland. A typical center is a complex of accommodation facilities, exercise and therapy facilities, swimming pools, and restaurants. These institutions give therapy to the disabled and the aged, but also prodromal therapy to the active workforce. Furthermore, a growing share of the rehabilitation center visitors consists of demanding recreational visitors without any disabilities. As most of the building stock has been built in the first half of the 1900's, the rehabilitation center managers are facing problems with aging facilities.

At the same time there are some changes in the operating environment that put pressure on the sustainability issues. First, the building stock is not energy efficiently built and used. With the rising energy prices, saving energy becomes an important issue. Simultaneously, the Finnish consumers are becoming more aware of the sustainability related issues. Their demands push the centers towards more sustainable solutions.

Sustainable development has in recent years been taken into account in the health care sector both in theory and in practice. Many guidebooks have emerged to help to design sustainable hospitals (e. g. ASHE, 2003; HEA, 2009; Singer et al, 2009). Also many Finnish hospital districts have adopted a voluntary environmental program (e. g. Vaasa Central Hospital; Intermunicipal Hospital District of Southwest Finland). The focus of sustainable development in the health care sector, however, has been on hospitals, while rehabilitation centers have been left out of the inspection. In order to get fundamental knowledge for further studies, **the aim of this paper is to introduce the present state of sustainable development strategies of rehabilitation centers in Finland.**

The methodology used in this research is two-fold. First, six workshops were carried out in six rehabilitation centers. The participants of these workshops included the CEO's of the centers and 2 to 5 other managers in the fields such as human resources, facilities management, marketing, and rehabilitation. Second, a desktop study was carried out to examine the websites of all Finnish rehabilitation centers.

This paper goes on to introduce the sustainability framework used in the analysis and then presents the methodology in more detail. The Finnish rehabilitation system and the building stock are also introduced to offer contextual information needed to understand the branch in question. After introducing the branch the results are presented before the concluding section. In the conclusions some suggestions for further research are given.

## **Sustainability framework**

Sustainable development is understood as the ability to sustain a high quality of life and well-being for present and future generations. (Blowfield & Murray, 2008; EU 10117/06) When implementing sustainability into corporate level, sustainability can be seen as satisfying needs of firm's present and future stakeholders (Dyllick & Hockerts, 2003). There are two traditions in the discussion of corporate sustainability. The first sees sustainability in environmental context only. The other view is to define sustainable development as an integration of economic responsibility, social equity and environmental integrity (Montiel, 2008). This paper takes the latter view of corporate sustainability.

Global Reporting Initiative (GRI) is one of the most used frameworks for companies to report their economic, environmental and social performance. (GRI, website 2011). Economical indicator used in GRI aim to describe how capital is divided between stakeholders and company's economical impacts of the organization throughout society. Indicators of environmental dimension cover amounts of used materials, energy and water, as well as produced emissions, effluents and waste. Impacts on biodiversity, environmental compliance, environmental expenditure and impacts of product and services should also be described. Social dimension of sustainability discuss how an organization affects on the social systems within which it operates. Social performance indicators in GRI introduce labor practices, human rights, society, and product responsibility. (GRI, 2011)

Strategic sustainability is identified as organizational commitment to adopt an integration of ecological and social sustainability traditions such as sustainable production processes, products and services and HR management to generate long-term competitive advantage. Sustainability is strategic if it supports the core business activities and thus contributes business benefits and effectiveness. Corporate sustainability is a multifaceted concept that requires organizational change and adaptation on different levels. (Dunphy, & al. 2003; Burke & Logsdon, 1996)

Strategic corporate sustainability means including sustainability aspects into business policies, governance, processes, everyday communications, purchasing activities and decision-making at all levels. Corporate sustainability becomes concrete through technical solutions, the integration of sustainability measures in employee performance evaluation and employee training and the publication of corporate sustainability reports. (Dunphy et al. 2003) By reporting customers, investors and other stakeholders conceptualize the sustainability performance of the firm and thus reports affect strongly to the competitiveness and the reputation of the firm (Heiskanen, 2004).

Starting point in structuring successful sustainable strategy is to define what the firm is trying to achieve and identifying the drivers of sustainability within the firm. Developing the sustainable strategy requires also identification of the key sustainability issues of the firm and

a careful analysis of the groups that are affected by the activities of firm and needs and expectations of those groups. (Blowfield & Murray, 2008; Azapagic, 2003)

Commitment of the management is critical in integrating sustainability into corporate strategy. Management is responsible for setting the long-term sustainability vision and goals of the firm. Translating sustainability vision into operational terms involves changing firm culture and employee attitudes, defining responsibilities, establishing organizational structures, information reporting system and operational practices. Sustainable initiatives established in the strategy should meet the expectations as well as complement the firm's competitive strategy. (International Institute for Sustainable Development, 1992; Azapagic, 2003; Linninluecke & Griffiths, 2010)

In practice there are many systems that the companies may use to manage, develop and assess sustainability of their premises and actions. There are plenty of different certifications (e.g. LEED and BREEAM), general management systems (e.g. ISO, OHSAS, SA), environmental programs (e.g. Energy star) and guidelines (e.g. OECD, ILO) for several facility and organization types to function more sustainably. Rehabilitation centers are mixture of many different operations and thus often consist of features common with other types of facilities, such as office facilities, accommodation facilities, restaurant and sporting facilities. Some common challenges and way to be sustainable in these building types are presented in *Table 1*.

*Table 1: Common sustainability related challenges and ways to meet these in different building types.*

	Sustainable drivers	Source
Sporting facilities	Setting ventilation, lighting and, heating to meet the use periods; sustainable use of energy, water and chemicals in swimming pools, appropriate pool water temperature and small temperature difference between pool water and room air, use of pool covers	Building Research Energy Conservation Support Unit, 2001; Trianti-Stournaei et al. 1998
Hotels	Accessibility by public transportation, reflective roof or pedestrian hardscapes, lightening and HVAC, setting HVAC and lightening to meet the use periods, low-emittance windows, occupancy sensors, water-efficient irrigation, reusing linen and towels, low-flow bathroom fixtures, use of recycled paper, brochures, toilet paper and other paper products – or recycling these again, favoring locally produced products and services, taking care of the recycling and waste management, using environmentally friendly detergents and chemicals.	EPA, 2007; Diener et al. 2008; Nordic Ecolabelling 2008
Restaurants	Energy efficient kitchen appliances and energy intensive food preparation, keeping everything clean, using the HVAC in sustainable manner, using local ingredients and organic products, avoiding porting packaging and small packets, environmentally friendly detergents in dish washing, food waste management, recycling and composting.	EPA, 2010; Nordic Ecolabelling 2008
Offices	Optimizing the use of lighting, HVAC systems and heating, office waste management and recycling, courtyard care, water generation, energy efficient office equipment such as computers and copying machines, sustainable working methods, reducing the use of paper, multiple use of electronic communication, employee training	Junnila, 2003; NAEEEEC, 2001;

## **Methodology**

The methodology of this paper is two-fold. First, the internet-pages of all Finnish rehabilitations centers were studied as a desk-top study. The framework for the analysis is a sustainability matrix that is based loosely on GRI. The matrix is categorized under several categories, which are listed in *Appendix 1*.

Second, six workshops were carried out in six rehabilitation centers. The participants of these workshops included the CEO's of the centers and 2 to 5 other managers in the fields such as human resources, facilities management, marketing, and rehabilitation. The workshop was arranged in two parts. First a group interview was carried out and a walkthrough audit was carried out after the group interview. Sustainability was one theme both in the interviews and the walkthrough audit. The material from the workshop was recorded and the sustainability related themes were blocked away from the material for further analysis.

### **Finnish system of rehabilitation centers**

There are about 100 rehabilitation centers in Finland. The number is changing a little bit constantly as the rehabilitation business is in turmoil. The rehabilitation building stock has been built in the era from the end of 19<sup>th</sup> century until recent years. Many rehabilitation centers have been built in many phases and thus the same rehabilitation center may have buildings from several decades.

A big part of the building stock was built before the period of greatest urbanization and from today's perspective the Finnish rehabilitation centers are in little peripheral areas. On the other hand many rehabilitation centers are in the middle of the most beautiful national landscapes of Finland. The locations of the rehabilitation centers are presented in the *Figure 1*.



*Figure 1: Rehabilitation centers in Finland.*

A typical center is a complex of accommodation facilities, exercise and therapy facilities, swimming pools, and restaurants. These institutions give therapy to the disabled and the aged, but also prodromal therapy to the active workforce. Furthermore, a growing share of the rehabilitation center visitors consists of demanding recreational visitors without any disabilities.

The rehabilitation business is under hard pressure as the customer groups are changing, the public funding is scarcer, and rehabilitation customer demands are ever higher. Thus

the rehabilitation centers in Finland are working hard to change the premises and processes to suit the needs of the future.

## **Findings**

The findings from the desktop study reveals that rehabilitation centers share very little information about sustainability on their websites. Only 9 out of 95 centers reported about actions related to environmental concern. Three rehabilitation centers utilize environmental management system ISO 14001 and four centers have take part into The Energy Efficient Agreement which is based on EU Energy Service Directive 2006/32/EC requiring participants to target towards nine per cent energy saving by 2016. The target is based on the average energy consumption for 2001-2005.

However, one manager of rehabilitation center noted that they haven't paid attention to energy usage despite the fact that they were part of Energy efficiency agreement. Other environmental actions of rehabilitation that were reported were recycling of waste and reuse of old furniture, procurement of food from local farmers, ecological building material, the usage of renewable energy, and taking part in the conservation of Finnish Archipelago.

All interviewed rehabilitation managers mentioned that energy usage of facilities and rehabilitation operations were the most essential sustainability issues. The facilities are often a large complex of different type of facilities. Aging facilities and worsening conditions of HVAC systems set big challenges for the maintenance of facilities. In many cases the HVAC systems have become obsolete and insufficient. Also many facilities are heated with old oil-fired systems. Managers are aware of the great need of renovations but the investments for renovations are often difficult to conduct due to the weak financial position of centers.

The location and accessibility of centers was found to be as a disadvantage for sustainability. Many rehabilitation centers are located far from city centers and are hard to reach without private transportation. This increases harmful environmental impacts caused by transportation of customers and employees but alternatives for private transportation are difficult to arrange. Driving instructions to the location were made available for customers in 56 rehabilitation centers' websites but only 30 centers informed directions for public transportation users even if there was possibility to use public transportation. None of the centers give information about directions for pedestrian or cyclists.

In desktop study it was also mapped how rehabilitation centers collaborate with other local firms and use their services. Based on websites it was difficult to create a clear conception of extend of collaboration with local firms due to shortage of shared information. Only 30 centers shared website links of their partners in cooperation and small rehabilitation centers marketed other local firms more than bigger ones. However, one rehabilitation center was a part of a cluster formed by local tourism enterprisers which actively marketed each other to increase awareness among customers. This type of cooperation was perceived sensible as the firm gained benefits by attracting more customers through cluster cooperation. Interviewed managers expressed the need of finding new local partners of cooperation to develop and diversify their services.

Information about safety in rehabilitation centers and people with special needs was also examined with desktop study. Even though disabled people are the biggest customer groups in most of the rehabilitation centers, very little information is shared about accessibility.

Information about services of rehabilitation centers in different languages was one of the social aspects that were studied in desktop study. Ability to choose different language other than Finnish was giving in 54 websites. 50 centers shared information also in English. Despite that Swedish is an official language in Finland, ability to get information in Swedish was given only in 27 websites. Russian was language alternative in 17 websites and German in 9 websites.

Despite that managers feel inhibited to influence the biggest environmental problems such as location or energy usage of buildings and operations, some actions were seen as conceivable ways to improve sustainability. For example, a few rehabilitation centers already procured food and other products from local producers to decrease the unnecessary transportation. One manager mentioned that the center has made recommendations for suppliers to decrease use of packing materials. Reduction of waste and recycling are considered as important ways to contribute sustainability but also to cut down expenses. Attention has been paid especially to minimize the organic waste from restaurants. Recycling and repairing of the old furniture instead of throwing out was also common.

The findings from both interviews and desktop study reveal that sustainability has often low priority in rehabilitation centers' strategies. It became clear that sustainability is not important factor in rehabilitation business in day-to-day actions. Many of the interviewed managers found it difficult to adopt sustainability aspects into rehabilitation operations due

to the difficulty to do investments. Despite managers aim to consider sustainability in many aspects, there are many issues which they think are impossible to alter in short term such as location, old facilities and HPAC systems, energy-intensive operations and so forth. However, interviews revealed that the biggest barrier for sustainable actions is the lack of funding and knowledge. Instead of investments managers have tried to improve sustainability with rather small efforts.

Interviews confirmed the notion that sustainability is often perceived only as ecological sustainability. All sustainability concerns that interviewees mentioned were related to environmental issues of sustainability. However, social aspects were an important part of business policy. Many social aspects such as equality and fairness were often mentioned to be part of business values and long-term vision even though it wasn't perceived as sustainability. Also know-how and satisfaction of employees were found to be great concern. Due to changes of business it is necessary that employees are prepared for changes in work operations and culture as well. Managers found it important to invest in education of employees and in research and development work in order to be able to answer to new demands. Satisfaction of employees was also perceived essential and it was measures in many rehabilitation centers.

One manager stressed that even though fundamental aim is to rehabilitate disabled persons and improve their quality of life, it is also necessary to do this in a profitable manner. In this sense the core business of rehabilitation centers is socially sustainable as the aim is to take care of those in need of help.

## **Conclusions**

In a way the social and financial aspects of sustainability are deeply embedded in the strategies of Finnish rehabilitation centers as their core business is to take care of those persons in need of help and not to maximize monetary profits. The environmental aspect, on the other hand, is more complex. The findings reveal that environmental aspects of sustainable development have often been a low priority for rehabilitation centers managers.

Even if sustainability is generally regarded as a positive matter, there are still great differences in motivations to improve it. Centers share very little information about sustainability of their operations on their websites. But according to interviews, this is slowly changing as some centers have recently paid more attention to environmental issues than they have reported in the internet.

Still, only few centers utilize some environmental management systems or make other remarkable actions to improve sustainability. Operations in rehabilitation aren't environmental-friendly at the moment and managers try to avoid emphasizing it in public. Different social aspects of sustainability were reported more often due to the nurturing nature of operations of rehabilitation centers as social sustainability is in a sense part of their core business.

The rehabilitation center managers are aware of the need to make their organizations and premises more sustainable, but they lack the knowledge and funding to carry out sustainability related efforts. Hence, there is an acute need to increase both general and branch-specific sustainability knowledge in the field. More knowledge is needed for planning major renovations, but also for improving the sustainability of the processes carried out inside the centers. The Finnish centers share their unique features with many spas and rehabilitation centers all over Europe. Thus the knowledge gained from Finnish context may be utilized also in European context.

Even though there are information about sustainability from different branches and building types, it is necessary to increase sustainability related knowledge about rehabilitation centers. This is important as these have many features and problems that may be not found from other businesses or other building types. This paper presented the present state of sustainability in Finnish rehabilitation centers. The next steps will be to create a more coherent framework for analysis and to study the rehabilitation centers in more detail.

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## APPENDIX 1: THE CATEGORIES OF SUSTAINABILITY MATRIX

Sustainability related information on the web-pages (yes/no; what)

Certifications (y/n)

Sustainability related happenings

Waste management possibilities for the customers (y/n)

Instructions for private transportation/public transportation/pedestrians and cyclists (y/n)

Instructions for disabled arrivals

Language selections (Finnish/Swedish/Russian/other; y/n)

Information about using local resources (y/n)

Links to local service providers and companies (y/n)

Links to internet stores (y/n)

Use of social media (facebook, newsletters, mailing lists; y/n)

Security related information (y/n)

Possibility to give feedback (y/n)

Needs of special groups are noted (y/n; how)

Accessibility related themes (y/n; what)

Rehabilitation services (y/n; what)

Recreational services (y/n; what)