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**CSR IN SUSTAINABLE ECONOMIC, ENVIRONMENTAL AND  
SOCIAL ASPECTS**

**Developing sustainability in companies that are using toxic chemicals**

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**ABSTRACT**

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<p>The objective of the study was to find out how companies had implemented sustainable development into their businesses, and whether they were using it as a competitive advantage in their marketing. A qualitative research method was used by interviewing six companies. The commissioner of the thesis was Pietarsaaren Mekano Oy Jakobstads Mekano Ab who ordered the survey to find out how their safety system could be improved. Mekano was also one of the interviewed companies. The aim with the study was to highlight the possibilities of saving time and money by having implemented electronic systems in companies for handling safety sheets of toxic chemicals.</p> <p>The theoretical part consists of Corporate Social Responsibility and sustainable development and what they stand for. The overall policy and basic idea of both definitions were covered and the balance between the economic, environmental and social aspects were looked upon. How sustainability and sustainable marketing can affect the company profit was shortly described. Subjects such as Fairtrade, ecological economics and green thinking were included in the theoretical part to give a better understanding of what sustainable development is for the individual, even though they are more associated with B2C market instead of B2B market. Since Occupational Safety, risk analysis and First Aid are important parts of the Finnish companies today and are connected to the topic, they are briefly explained.</p> <p>The conclusion of the survey was that sustainable development is well integrated into companies' businesses today. The bigger the company is and the more they are using dangerous substances, the better their safety systems and their staff education are. This goes hand in hand with whether the companies are using sustainable development as a marketing method and a competitive advantage. The smaller companies were positive to the possibilities of implementing better safety systems but they did not have the resources to make too big investments for, as they said, an internal matter. The smaller companies did not all agree that sustainability could be used as a marketing method and improve their profits.</p>		

**ABSTRACT**

**Key words**

Competitive advantage, Corporate Social Responsibility, First Aid, safety systems, sustainable development.

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## 1 INTRODUCTION

The objective of this thesis is to find out how companies have implemented sustainable development into their businesses and if they are using it in their marketing. The emphasis has been put on the use of chemicals and how the companies' First Aid arrangements are handled. The aim is to highlight the possibilities of saving time and money by having implemented electronical systems for handling safety sheet of toxic chemicals. That way the companies would also save costs in case of accidents with toxic chemicals and save time with maintaining the system. The commissioner of the study is Pietarsaaren Mekano Oy Jakobstads Mekano Ab who delegated the task of doing this study as they did not have the resources themselves.

The writer has applied a qualitative research method by interviewing a few medium sized companies/industries that are using toxic chemicals. There were 20 questions that were asked in a personal interview in six different companies in the study. When companies are taking good care of all members of staff by, in this case, making sure the staff knows how to take precautions and how to proceed in case of accidents with chemicals they are using, one part of the social aspect of the three aspects in Corporate Social Responsibility has been taken into consideration. With the help of green thinking the environmental and the economic aspects are taken into consideration.

To find out more about what kind of databases already exist, the writer had been in contact with a Scandinavian web based company called EcoOnline who has developed this kind of service together with an application linked to the same database as a product and service. There is also a similar application for cosmetics meant for private use called CosmEthics. These two could possibly collaborate if there were an interest, given that both parties would have something to gain on such a collaboration. The writer believes it would be profitable to apply such an application into businesses that are using toxic chemicals. However, by adding even more information into such an application it would simplify the work with safety sheets even more. EcoOnline was known to a few of the companies of which you can read more about in chapter number six.

The theory studied in this thesis was about Corporate Social Responsibility, from here on mentioned as CSR. This means how companies can take the responsibility themselves of how they affect the society economically, environmentally and socially. All these three aspects should be in balance so that the companies would be able to achieve the highest advantage out of their business. In chapter number two

there is an introduction of what CSR is and how it can be implemented into companies and the importance of the balance between all three aspects. The economic, environmental and social aspects are all covered separately in the chapter.

Chapter number three contains information about how to implement sustainable marketing into the business and how companies can earn money by using sustainable development through the whole production process. The writer has explained about the history of ecological economic and how it started as this is an important part of the whole idea. The Swedish author Karl Gustafson has developed a so-called tax system which he claims will save the world population from poverty. His thoughts are very interesting and he has a good point with his tax system. After reading the book one could agree that the system could help the society but are the world leaders ready to take such a step and are the company leaders ready for such a change regarding the social aspects. The writer wanted to include Gustafson's theory to highlight the social aspects of CSR in a different way though it does not concern the actual study directly.

Sustainable marketing is also looked upon from the same aspects which are economic, environmental and social aspects. By educating customers of the importance and benefits of following the human, economic and natural capital in the processes of promoting, selling and distributing different services and products in a sustainable market, there could be possibilities to make the world a better and safer place to live and work in. There are already organizations as World Fair Trade, that work continuously and support companies around the world to put their emphasis into producing safe products in economic, ecologic and social ways. On the B2B market EcoOnline is a good example of a company which is aware of the environment and who's line of business fits under the heading CSR.

The Finnish occupational safety organization has focused on the responsibilities of both the employers and the employees in Finnish companies. It is a duty for every Finnish company to make sure they have an occupational safety system which includes risk analysis, estimation of the significance of the risk and lowering the risks. The occupational healthcare system is one important legal aspect linked to the risk management. The study done in this thesis is closely connected to this topic. First Aid knowledge is a must in the industries and workshops that deal with and handle toxic chemicals. Companies' duties are to make sure their staff is being educated in First Aid in case of accidents.

The management of the commissioner Pietarsaaren Mekano Oy Jakobstads Mekano Ab are getting more and more aware of sustainable development and the risks that might occur in their workshop. Therefore, they are eager to make improvements in this line which would save time and money for the company

and their staff and in the long run also could improve their profit. Pietarsaaren Mekano Oy Jakobstads Mekano Ab has also been in contact with EcoOnline but did not have the resources to do a study themselves, instead they delegated the task to the writer. By interviewing a few companies that handle toxic chemicals on daily basis and find out how they have implemented sustainable development into their business, it would help the commissioner to get a model for their own investments in an updated safety system which would improve their work with sustainable development in their daily business.

The analysis of the study in chapter eight shows that by doing investments mentioned above, it would support the economic, environmental and social aspects of CSR or sustainable development for companies using toxic chemicals. The result also shows that there is a possibility of gained profit when companies are supporting green thinking in their businesses. Green thinking can also be used in companies' marketing as many customers are getting more and more aware of this topic and they strive to support suppliers who are working in this line.



## 2 CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility is a well-known term to many people all around the world. For the writer, however, it was quite a new definition of sustainable development. The difference between sustainable development and Corporate Social Responsibility will not exactly be defined in this thesis. Rather both definitions, which are very close to each other are being introduced in different chapters.

Corporate Social Responsibility or from now on named as CSR, stands for companies' voluntary community responsibility divided into three categories: economic responsibility, environmental responsibility and social responsibility. To be able to have a sustainable long-term business, companies should be able to apply all three aspects in a balanced way. In case a company would focus on only the economic part they could be looked upon as greedy. If the focus were on just the environmental aspect, then the risk would be that they forget the well-being of the staff. And if they only focus on the social responsibility they could easily forget to emphasize on how to sell their products. In other words, the three factors should interact to reach a long-term sustainable business where they can earn money, take the environment into account and make sure the working place is comfortable, tolerant and generous. The conception sustainable is according to Grankvist a better word to use instead of CSR. The reason is that CSR is more known than sustainability. However, it is more natural to talk about sustainability once you understand the topic. Grankvist uses sustainability a lot in his book even though CSR is used to emphasize certain arguments. (Grankvist 2009, 21.)

When it comes to ethical responsibility Grankvist gives examples of when companies want to decrease their environmental effects by going in for ecological growth of genetically modified products. Those companies choose to take a bigger social responsibility in the society, but they do not think about the consequences of how the resistant super growths will affect the biological diversity in the nature, which on the other hand will affect our children's possibilities to make their own decisions in the future. If you want to ensure that the products are both environmentally safe and that they have been produced in a correct manner, we are talking about both environmental and social responsibility. (Grankvist 2009, 22-23.) Companies only work for their own winning by ignoring the affects the resistant super growths have on future generations, which in the writer's opinion could be a disadvantage for the companies' own growth in the future. The reason could be that customers are getting more aware of the importance of both environmental and social aspects when it comes to purchasing of products.

When it comes to the Finnish companies and CSR, they have the pre-conditions to be among the world leaders for their impact on social responsibilities. We are living in a democratic society with freedom of speech for everyone and we have long traditions of following up the laws of occupational and industrial safety as well as the environmental legislation. Human rights are being respected and work against bribery and corruption is being done. All these aspects are competitive aspects on the global market. In Finland it is the Ministry of Employment and Economy that are responsible for the questions concerning organizational and social responsibilities (CSR). Other topics that are being handled at the Ministry are sustainable development, market- and evaluation politics etc. (Piiro, Hanski, & Immonen. 2016.)

## **2.1 Economic responsibility**

To run a business in such a way that as much money as possible is earned and to answer to the stockholders to ensure the company's financial position and return on invested capital, means economic responsibility (Grankvist 2012, 15). Ecological economists disagree that growth would be the answer to environmental problems. The nature is unable to follow the systems of today which are turning faster and faster. The market should therefore be protected from greedy actors. Instead we should correct our lifestyle by obtaining knowledge about the borders of the ecosystem based on natural scientific research. (Larsson, Bratt & Sandahl 2011, 128.)

Natural borders of the ecosystem are areas of habitats with transitions which are lying next to each other. Due to modifications of the habitats caused by human activities they have increased a lot. Ecosystem borders that are occurring naturally consist of specifically adapted species. The ecosystem borders that have been caused by human activities consist, on the other hand, of a mixture of species from two different environments and might cause a negative influence on the natural ones. (Bank-Leite & Ewers 2009.)

A good example of understanding the economic responsibility is going on a more personal level with the following examples. There are companies that take the advantage of weak consumers by offering quick loans with high interest. According to Konsumentverket (2012a) in Sweden an economically sustainable consumption means that an individual should not buy more than he or she can afford, which means that the income should be higher than the costs. The responsibility of the marketers is high here as the number of companies that offer this kind of loans have increased the last few years. Mostly these companies are tempting their customers by offering quick loans but the high rates are well disguised.

(Ottoosson & Parment 2013, 42.) In the writer's opinion, this way of getting customers and earning money is more like making the customers tip over than thinking in an economically sustainable manner.

## **2.2 Environmental responsibility**

Environmental responsibility means to run a business in such a way that our planet and nature resources are not affected negatively (Grankvist 2012, 15). By using nature's resources in a smart way, the costs will stay low. At the end of the nineties Ikea took the decision to increase their responsibility for the environment. They started to produce their products from recycled material which also could be recycled. By doing this they could save both money and the environment. At the same time, they started to decrease the packaging costs for their furniture and equipment. Ikea's awareness and way of thinking has become well known and they already have a culture of being stingy in a positive way. According to the Ikea way we can see everything as resources, which on the other hand enables us to think that we can save money by using less resources. Also by using the resources one has in a sensible way, whether we are talking about energy, water, commodities, waste or people. (Dahlvig 2008; Grankvist 2012, 48-49.) Many companies have become more aware these days and apply environmental responsibility into their businesses. A few examples can be seen in the study of this thesis.

By assessing the nature resources and ecosystems it can be a way of pointing out their importance and a stimulus of avoiding the devastation of them (Larsson et al. 2011, 191). By stating so called optimal amounts of spill aloud or payable taxes, the information given must be perfect and contain facts about the full consequences the spill will cause. That could consist of how they affect the ecosystems, the ambient environment, the economy and the well-being of humans. This amount of information is in fact impossible to gather and process. The lack of this information and knowledge could be the reason to why monetary values of the environment still cause waste of many resources. (Larson et al. 2011, 192.)

The basic needs for the existence of humanity, food deliveries, clean air and water and the most fundamental resources are being provided by the most essential forms which is natural capital. A constant flow of material inputs and ecosystems services are being required by our socio-economic systems' ecological restrictions. Significant amount of legislation to protect, conserve and enhance ecosystems and their services have been introduced by the European Union and some of their neighbouring countries. (European Environment Agency 2015.) The ecosystem that underpin socio-economic systems of production and consumption can be seen illustrated in figure 1 below.

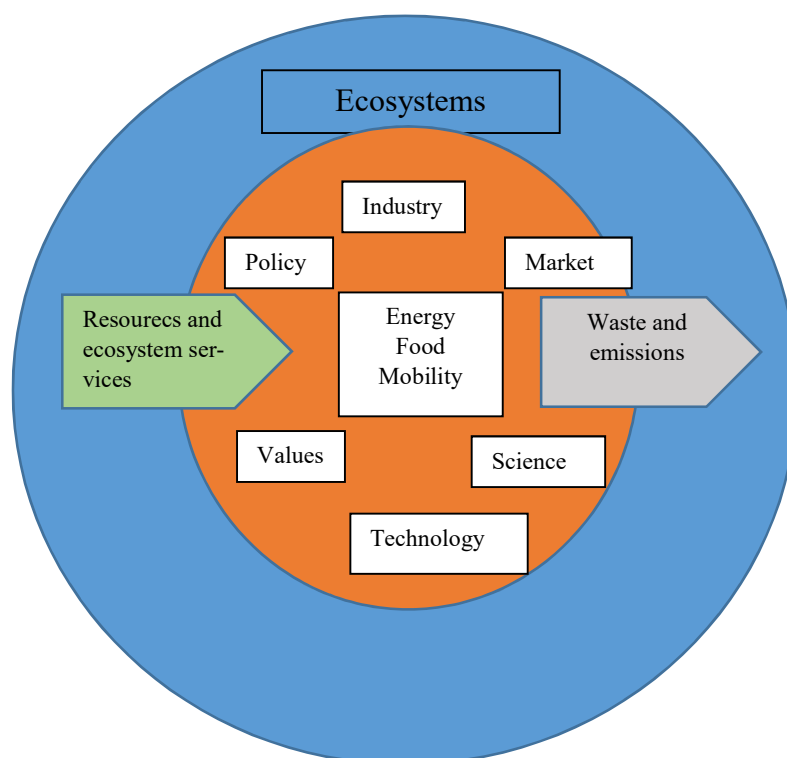


FIGURE 1. Ecosystems underpin socio-economic systems of production and consumption (adapted from European Environment Agency 2015).

### 2.3 Social responsibility

To run a business in a way that recognizes a good member of the society, which means respecting other people's health and well-being regardless if they are our employees, working for a subcontractor, are our business partners or consumers (Grankvist 2012, 15). Social capital, as well as many other capitals, can increase the value that is used. There are many different existing definitions of social capital but four aspects are recurring. They are; 1) trust between individuals and organizations, 2) reciprocity, 3) norms, rules and sanctions and 4) contacts and networking. (Larsson et al. 2011, 251.)

Productivity can be obtained in many ways concerning societal concerns. For example, if a company is making investments in the employees in form of a wellness program, the benefits will occur as healthier employees and their families. The positive affect will be less absences and lost productivity. Areas where social responsibility in relation to the productivity of the company is most visible are; environmental affects, access to good suppliers, skilful staff, work security, well-being of the employees, the use of

water and energy. (Ottosson & Parment 2013, 87.) Companies should in other words strive to take good care of their staff which will make a win-win situation and affect the company profit in the long run.

## **2.4 CSR and profitability**

Most large companies are being actively engaged in corporate social responsibility and it is generally held that CSR could increase profits for companies. Research does show that it can improve profits but there are not so many managers and executives that are aware of that. Most executives believe that CSR is a promoting factor in the marketplace and could increase the respect for their company. This could lead to higher sales figures, enhance employee loyalty and attract better staff to the company. Also, according to Robins 2015 by focusing on sustainability issues costs could decrease and efficiencies could be improved. Aggressive CSR activities may be an advantage for public companies and help them gain a possible listing in indices like Dow Jones Sustainability Indexes for example. This could enhance the value of the stock and make executives' stock and stock options more profitable which would lead to happier stockholders. (Robins 2015.)

Comparatively it is interesting to read what Whaley initiated in an article for Devex Impact in 2013. According to a radical proposition put forward to global corporations by professor Michael Porter in 2011, a new way of achieving economic success was that social progress was a way of reconnecting company success by businesses. Porter thought it was the next major transformation of business thinking. Achieving economic success is at the centre of what companies do when talking about that shared value is not social responsibility, philanthropy, or even sustainability. Not every large corporation was convinced by Porter's "shared value" idea but some of the leaders of the world's greatest corporations that had programs consisting of active corporate social responsibility and sustainability greeted the idea with open arms. It is important to the development community whether corporate social responsibility is adding value and is being profitable to a company. This is because there are greater resources in the private sector than in government aid programs. (Whaley 2013.) The implication of the fact that corporate social responsibility is profitable for companies is given. In other words, by developing sustainability in companies they will achieve more profit, which also can be seen in the study of this thesis.

### 3 SUSTAINABLE DEVELOPMENT

What is sustainable development and what does it include? The difference between CSR and sustainable development will not be covered but some of the answers to the question what it is are being covered in chapter three. There are different definitions of this great topic so there is only a fraction included in this thesis. However, the emphasis is put on the economic, the ecologic and the social aspects which also can be divided into further sections. Grankvist is writing about ten steps of sustainable development which has been illustrated in figure 3. Ecological economics is an interesting topic of today's world which is shortly described by Larsson et al in this chapter. Also, a different piquant theory by Gustafson has been presented to bring an understanding of what ecological economics could consist of if society would emphasize on it. Global Finland again are talking about four different aspects in this topic. Green economy and sustainable marketing have been included in this chapter as they are an important part of sustainable development.

#### 3.1 The definitions and the use of them

For most people the concept sustainable development means some form of respect for nature to give the opportunity to future generations to live a good life. There are many different interpretations of the definition sustainable development (Larsson et al. 2011, 21). For example, the following five definitions: well-being will not decrease over time, the capital of nature does not decrease over time, to take care of the resources to enable a maintenance of sustainable yield of goods and services, maintenance of the social-ecological systems' resistance over time and to create consensus and knowledge. (Söderqvist & co. 2004; Larsson et al. 2011, 21.)

In other words, sustainable development is not a self-evident definition and the contents might vary. To be able to ensure a global social equity and a wish for a future good standard of living for the whole population, the word development is being emphasized. Other times the word sustainable and the possibilities of the ecosystems are being focused on. (Larsson et al. 2011, 21-22.) Before we can talk about real sustainable development all three systems; economic, ecological and the sociocultural systems need to be integrated. In figure 2 below can be seen how all three aspects affect each other and that every part is depending on the other two before we can get the sustainable solutions.

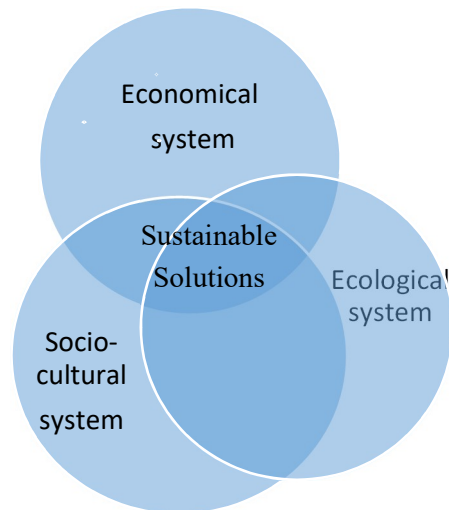


FIGURE 2. The three systems – the economic, the sociocultural and the ecological (Adapted from Larsson et al. 2011, 24)

On the Finnish website [global.finland.fi](http://global.finland.fi) the definition of sustainable development is divided into four different categories. Ecologically sustainable development means when man is adapting to the nature's resources. Economically sustainable development means an even growth without debts and by using all resources. Socially sustainable development means when people are treated equally when it comes to wellbeing, decision-making and basic rights. A culturally sustainable development is one of the newest angles of seeing upon the matter and to preserve a cultural diversity from one generation to another. The political development policy in Finland deals with eliminating poverty with the help of economic, social and nature economic sustainable development. Due to the climate changes of today and the shrinkage of the nature resources, actualizing sustainable development has become an urgent matter. The threats of today are the high rates of the carbon dioxide in our atmosphere and the consumption of renewable energy resources the capacity of recovering of which are topped. The threat of many different species being extinct is so high that people have started to talk about the biggest extinction crises in a million years. The overall industrial growth of the west world has been achieved with help of the energy of fossil fuels as oil and coal, which on the other hand has caused the climate warming. (Iso-Markku & Hiltunen 2014.)

The figure below illustrates ten different actions taken that every person and every company could start to think about when it comes to sustainable development. The actions are based on the effect they get,

as well as how much they affect the employees and the customers to make them aware of that you as an organization are trying to take more responsibility in the society. The aim is to make the strategies for the sustainable work more tangible for the employees. All of the strategies are meant to help your company to get more profit and sustainability. Some of the strategies are easier and some more difficult and it should be possible to realize them in three months. (Grankvist 2012, 195.)



FIGURE 3. Ten steps on the way to sustainable development (Grankvist 2012, 195-197).

### 3.2 Ecological economics

The birth of ecological economics was launched as early as 1977 by Herman Daly in his book *Steady-State Economics*. The first theoretical thoughts were launched around steady-state economy. Daly showed how unrealistic the thought of economic growth is through the biophysical realities that surround us. It is the neoclassical economic model consisting of work, salary, purchasing and products between



households and companies which are being described as inadequate. The nature is not included so where do the resources come from, where is the waste going and which restrictions are in the form of limited raw material or the ability to handle the waste? (Larsson et al. 2011, 154.) Luckily these questions are taken into consideration in today's modern Finnish companies.

Ecological economics was introduced as an academic discipline in year 1989. In this education it is the nature and the ecosystems that are dominating our possibilities to create welfare. If the natural resources are being overexploited the humankind will face serious problems. Ecological economists think there are physical restrictions within the economic activity. The economy is seen as a subordinate to the environment and as a part of the global ecosystem. (Larsson et al. 2011, 128.)

The Swedish author Karl Gustafson has written about a new economic tax system which he claims would save the world population from a total disaster, implement justice and release the human being from slavery. Gustafson wrote the words about saving the world population in an updated introduction from 2014. Further, Gustafson claims time would lie as a base for payment for work that is being done by humans as well as for the taxation during ordinary working hours, which the author calls "a time factor economy". A few examples of advantages the time factor economy would give are: 1) All taxes except time tax would be abolished (taxes for alcohol, tobacco and environmental harmful substances would remain). 2) The obstacles for a creative industry would fall off which would make it easier to establish a company and hire new staff which would lower the un-employment. 3) The time tax would cause everyone to contribute with the same amount of hourly wages to pay taxes. The buying power would increase when a time limit for collecting taxes would be implemented and enable a better taxation plan. 4) No taxes would be collected for work done after ordinary working hours. To prevent production costs to rise, the hourly pay for overtime would be the same as for ordinary working hours. 5) A larger amount of the income could be kept by the employees and enable savings of excess money. This would enable people to finance their own education, consumption and investments and lower the need for taking loans. (Gustafson 2014.)

Further Gustafson thinks that the time tax system would be a solution to the overpopulation on our planet. If the population continues rising continuously there will be about 15 billion people living on planet Earth in about twenty years. How can we support that many people then if we are unable to do it now? There are speculations about how reduction of the population by criminal methods could be done such as spreading of contagious diseases, poisoning and by methods which would lower the fertility etc. The risks of conflicts and war would arise due to limited resources for survival. (Gustafson 2014.) To

draw parallels to sustainable thinking within companies could be by introducing taxes for the use of harmful substances and chemicals.

### 3.3 Green Economy

The definition of the United Nations Environment Programme of Green Economy is as follows:

A Green Economy is a clean, environmentally friendly economy that promotes health, wealth, and well-being (UNEP environment for development 2012).

Green economy is subject to sustainable development. This means serving the needs of today without risking the standard of future generations. We are talking about supporting a growth of our economics that benefit social justice and fairness together with the environment without making sacrifices. Building up new systems and throwing out the old ones is not needed when building a Green Economy. It is not just the financial cost but more about making choices according to total costs of all activities. (UNEP environment for development 2012.)

A study made by the center and think tank “Global utmaning” (= Global challenge) from Sweden shows that green economy needs to differ from the economical thinking of today in many aspects. It is all about planning a long-term income instead of striving for a maximum return, to put environmental needs in front of shareholding interest, shifting focus to long term thinking instead of short-term, administering nature resources instead of extracting them, preferring circular production systems instead of linear and creating long-term posts instead of short-term products. Anders Wijkman who is one of the researchers within “Global utmaning” says that there are many things that are crucial for creating welfare for the future and that cannot be replaced with money. Here we are talking about a stable climate, biodiversity and a re-building of the topsoil. The economic models of today have not taken these aspects into consideration. Ulf Dahlsten, another member of the think tank says that banks will invest their money into the housing business as it has been the most profitable during the last years. This causes prices to rise and bubbles to appear. Dahlsten’s opinion is that the purpose of making money has been wrong so far. (Backström 2015/2, 12.)

### 3.4 Sustainable marketing

Sustainable marketing is a wide concept and examples of both B2C and B2B sustainable marketing are being mentioned in this thesis to simplify the understanding of this topic. Sustainable thinking needs to start from a personal level until it can be introduced and implemented into companies. When talking about economically sustainable marketing the dictionary of sustainable marketing explains it as follows:

The process of promoting, selling, and distributing a product or service in a sustainable market in such a way as to educate customers of the multiple benefits of valuing human, economic, and natural capital. (The dictionary of sustainable management 2016)

Looking at the B2C perceptions in sustainable marketing, we will find plenty. For example, Ottosson & Parment who are also dividing different ways of consumption into three categories which are: economic consumption, environmental consumption and social consumption. Questions about household economics have often direct links to social questions. Households where the consumption is unsustainable have generally worse possibilities to function in a socially sustainable way. Environmentally sustainable consumption can according to Konsumentverket (2012b) be split into three main areas: what we eat, how we travel and how we consume energy and take care of the waste in our housing (Ottosson & Parment 2013, 45). It could be about the risk for these people to get socially marginalized or about their health. Availability is another aspect that might cause unsustainability, especially if we are looking at disabled people who suffer the risk of being blocked from certain kind of consumption. This might on the other hand cause higher prices and a smaller supply for the target group. A more sustainable consumption both economically and environmentally can be reached by decreasing the consumption overall, as the environmental stress gets lower in such cases. (Ottosson & Parment 2013, 43.)

Producers of goods and services that emphasise sustainability in a genuine way could find new ways of experimenting with their sustainability marketing. For example, by educating young people about sustainability it could bring the wanted behavioural changes on them and become more cost efficient for the producers in the long run. When a society has been educated enough it will become a culture and the investment needs are less when transferring to the next generation. This is how the cost efficiency will become a fact. (Tpanthi. 2013.)

When we are talking about B2B sustainable marketing it is not as easy and quick to develop as the B2C sustainable marketing. However, there is an increasing amount of companies that are implementing sustainable marketing, or green marketing into their businesses. More and more consumers and investors

are demanding products and operations to be environmentally more sustainable. Manufacturers are changing their opinions about sustainability from corporate social responsibility to great potentials. (Grady 2016.)

### 3.5 Fair trade

Fair trade is an outlier that is good to mention in this context though it mostly targets the B2C market. But it is a good example of using sustainable development as a marketing tool. According to Konsumentverket (2012c) social sustainable consumption refers to the safety of the products and services that people are buying. Ethical and fair trade or ethical consumption are sometimes mentioned in this context. All these concepts are often referring to the processes of improving the working conditions such as a fair salary, the right to a collective organization, banning of child labour and by taking the environment into consideration. There are two different systems working for fair trade: *Fairtrade International* and *World Food Trade Organization (WFTO)*. Both these organizations have worked out different criteria that recognize fair trade products. (Ottosson & Parment 2013, 48.)

WFTO are working for the marginalised producers and workers in the South to improve their livelihoods. Unfair international trading is being changed by means of Fair Trade. They are providing services and promoting the interests and coordinating the collaborations of their member organisations and individuals. (World FairTrade Organization 2014.)

Fairtrade International is the world's greatest and most known fair trade system. Partnership between producers and traders, businesses and consumers are the ground for an alternative approach to conventional trade between these. (Fairtrade International 2011.) Below are the logos of Fairtrade International and WFTO (figure 4) which can be seen on many packages in local shops.



FIGURE 4. Fairtrade International logo and World Fair Trade Organization logo (World FairTrade Organization 2014)

Examples of companies that use fairtrade are for example Fair Indigo which are an eco-friendly and organic company, designs and produces stylish men's and women's clothes. Theo Chocolate is another company that uses organic raw materials which are grown sustainably and are priced fairly. The company strives to support farmers that grow their cocoa beans. (Global Citizen 2016.)

Fairtrade Finland is called "Reilu kauppa ry" or "Rättvis handel" in Swedish. Fairtrade Finland is an association founded by thirty organizations in 1998. Reilu kauppa ry certifies products and raw material but not companies. They supervise the use of the brand Fairtrade in Finland and within the Baltic countries as well as support the sales of the products and reports to Reilu kauppa. The association is not taking part in the trading itself. Reilu kauppa rf are financing their business with licence fees for the use of the brand, support from the Foreign Affairs Ministry, by project finances from the European Union and from fees of the membership organizations. The licence fees for using the Reilu kauppa brand is also financing the international Fairtrade business. (Reilukauppa ry 2016.)

### **3.6 Advantages for companies with sustainability**

Company business is often being controlled by measurements, controls and analyses of income and costs by calculations, budgets and outcome estimations. Management accounting is normally a complex business where both historical, current and future parameters must be weighed in. Public limited companies report every quarter which give them a short-term time perspective and during the last years they have received criticism for this. The reason is that the stock price might drop rapidly after a quarter report even though it is difficult to predict long-term results after such a short time. This massive short-term focus causes problems in a sustainable perspective. (Ottosson & Parment 2013, 74.)

Companies are not always motivated to think in a sustainable way if the reason is only to act like good members of the society. Instead they should be encouraged if it affects their brand in a positive way or give them cost reductions. Reduced costs for waste disposal is an example of an action that can be presented to the customers as increased responsibilities. At the same time, it is obvious that companies have taken more responsibility over time. Not many decenniums ago scandals due to waste dumping in un-

suitable places, using of dangerous chemicals in products etc. The question is which incentives the companies have when they are acting and how the development towards an increased sustainability can be advanced. Today it is rather cheap and sometimes even free for a company to ignore ethical questions. Resources should be priced in such a way that they reflect the national economical and long-term consequences and that could be a way of solving the problem. (Ottoosson & Parment 2013, 74-75.)

Porter & van der Linde (1995a, 1995b) implied that an environmentally sustainable competitiveness could be reached with increased costs and income if the companies acted proactively in relation to increased environmental requirements. Further they meant that empirical research has proven that it is possible to premium price “green” products and services, which means higher prices for sustainable products compared to unsustainable products. Porter & van der Linde argues concrete that companies that convert their shops into a “green” line might get competitive advantages in both cost and income by increasing the efficiency of the resources and the energy. Another aspect could also be to open new strategic possibilities for new “green” profitable niche markets. (Ottoosson & Parment 2013, 83.)

TABLE 1. Examples of competitive advantages on both cost and income are shown in the table below. (Based on Porter & van Linde (1995A, 1995B); Ottoosson & Parment 2013, 84.)

Potential advantages in income	Potential advantages in costs
<ul style="list-style-type: none"> <li>• Higher quality on the products which enables premium price.</li> <li>• Higher productivity due to more efficient use of resources, which enables increases in productivity and sales.</li> <li>• Higher consumer satisfaction as demand on sustainable products are increasing.</li> <li>• Increased product differentiation which leads to a stronger brand.</li> </ul>	<ul style="list-style-type: none"> <li>• Lower production costs</li> <li>• Lower waste disposal costs</li> <li>• Lower costs for resource purchasing</li> <li>• Healthier staff due to for example better air conditioning in production lines, which leads to lower costs in sickness benefits.</li> </ul>

As an example of a company that has not needed to invest a great amount of money by choosing the green line is the company Brilliant Earth, Conflict Free Diamond Jewelry situated in Canada. The diamonds they use in their jewelry are either mined in Canada in accordance with environmental laws or made from recycled metals as gold and platinum. The co-founder of Brilliant Earth, Beth Gerstein states in a blog on the website Ecopreneurist: “Our philosophy was to start to build supplier relationships and

then to get customers, growing organically.” Serving as a match-maker for conflict-free diamonds for engagement rings and other jewelry of ethical origins were their starting niche and from there the company has grown to a successful business participating in shows and festivals around America. (Eco-preneurist 2008.)

## 4 OCCUPATIONAL SAFETY

This chapter is about occupational safety in Finland. The writer has focused on the responsibilities of both the employer and the employees. The development of the Finnish occupational safety is briefly described. Risk management and First Aid in companies is important and must, according to law be implemented in every company.

Occupational safety is an obligatory organization in Finnish companies which aim is to prevent dangerous situations. The employer is responsible for occupational safety and healthcare at workplaces in Finland (Hanhela, Liuhamo & Pääkkönen 2014, 5). The employer and the staff must collaborate to maintain and improve the safety at the workplaces. The employer is responsible for evaluating the dangers and for an ongoing observation of the work together with actions taken for the development needed. The activity of the occupational safety basis is formed by the occupational safety organization which on the other hand reflects the management's thoughts about safety. The transfer to the practical work is depending on the whole staff and making sure everyone is getting involved. Occupational safety identifies elements that might cause danger for the employees and estimates the effects of the risks these might cause as well as the need of lowering the risks. To create secure labour standards a systematic and planned activity is being conducted. (Tyosuojelu.fi 2015.)

### 4.1 Development of the Finnish occupational safety

The Finnish law says that the aim with the Finnish occupational safety is to improve the work environment and work conditions to ensure and support the workers' working ability and to prevent work accidents, work related diseases and similar inconveniences that might affect their physical and mental health caused by their work and the work environment. The law is applied when there is a work agreement as a base or for officials. It is not applied on leisure services or for sport activities. (Occupational Safety Law 23.8.2002/738.)

According to studies, Finnish workplaces invest approximately one billion euros per year in occupational safety and healthcare. Finding out what this money accomplishes and how the efficiency of the activities of this sector could be improved is a challenge. Occupational safety could be developed and updated by the workplaces themselves and be inspected and supported by organizations with expert knowledge. The



Finnish Institute of Occupational Health (FIOH) could naturally be the organization that researches this type of activities. Developing more fine and complex aspects of well-being at work can only be accomplished when the occupational safety and healthcare is being guaranteed at workplaces. Vivid structural changes are taking place in work life of today and the need of developing the occupational safety and healthcare is bigger than before. By combining earlier experience with challenges of future work life regarding well-being, a new perspective on occupational safety and healthcare will be achieved. (Hanhela et al. 2014, 3.)

RJ-Kuntoiluseteli Oy is a Finnish service company founded in year 2005 who is a specialist in electronic money issues. TYKY-notes are popular as recreation benefits aimed for supporting wellbeing for people in working life and they can be used for both exercising and culture. The employers can easily and cost-effectively support their staffs' wellbeing. (Tyky maksuvälineet 2016.)

Discussions have shown commonly that the legislation of the occupational safety at workplaces is in a rather good shape. However, new requirements have been created by restructuring and changes at work. The occupational safety situation at workplaces does not follow the law, which has been a major concern. The skills and the will are missing though the knowledge exists. For FIOH this is a good opportunity and for the past ten years this is the direction that we have been moving in. (Hanhela et al. 2014, 11.)

## **4.2 Risk management**

Occupational safety includes three phases of risk management: 1) risk analysis, 2) estimation of the significance of the risk and 3) lowering the risks. The risk analysis includes identifying the safety limits, identifying the danger and estimation of the risk. Estimation of the significance of the risk includes decision-making of risk acceptance and analysis of the alternatives. Lowering the risk includes decision-making process, execution and follow up. Risk analysis and estimation of the significance of the risk is called risk assessment when all three aspects together are called risk management. The whole structure can be seen in the figure below. (Tyosuojelu.fi 2015.)

Crisis management is one part of the occupational safety and risk management. Every company in Finland must have a crisis management plan which must include facts about the organisation or the company, its management team and their contact details plus other concerned groups. It must consist of crisis information and an action plan which clearly states how the work load is being divided in a crisis. Where

and via which channels support for the crisis and post-operative care can be found is very important information that management and the working team should be responsible for. It is up to every company and organisation what the crisis plan should look like but the contents should be clear for the reader and updates must be done regularly. (Tyosuojelu.fi 2015; Strömberg, A 2015.)

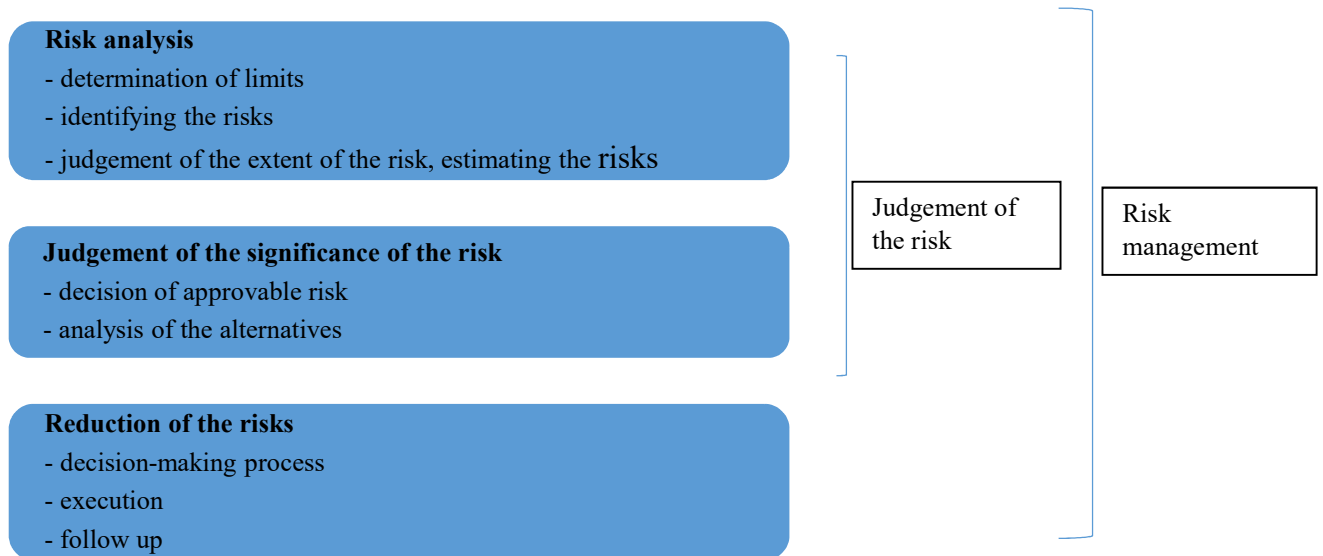


FIGURE 5. The different part of risk management (translated and adapted from Tyosuojelu.fi 2015.)

By adapting good risk management companies can control the security in a better way. It is important to follow up the business continuously and the goal is to improve the security permanently. The employers need to look to that the work environment is being overseen regularly and gather reports on possible risks in the daily work. A good co-operation with the work healthcare must also be taken into consideration and the employer must keep records of sickness leave and the accidents. Dangerous situations that might have caused these must be cleared and conditions that might be of threat for the health must be amended. With the help of only a few small improvements considerable results can be achieved together with improvement of the productivity at the working place. (Tyosuojelu.fi 2015.)

### 4.3 First Aid preparations

The employer is responsible for educating the staff and other visitors at the working-place and for giving them instructions for actions taken in case of an emergency. First Aid material must be kept in well-marked strategic and visual places. Facilities suitable for First Aid must be found in working-places where the work is of such nature that it is required. The employer is also responsible for nominating one

or several employees for the task and making sure they get the education and equipment needed. The work healthcare is responsible for evaluating the need of readiness for First Aid at the working-place. The First Aid readiness is planned in collaboration with the emergency organization and organization for protection of the population when necessary. In such cases the emphasis is put on the First Aid readiness in case of big accidents and catastrophes. The arrangements also need to take into consideration treatment of psychological reactions and consequences of the work situations. (Tyosuojelu.fi 2015.)

Employers have the possibilities of supporting their staff's health by arranging rehabilitation through Kela in Finland. If an employer is at risk of deteriorating within the coming years or if their work capacity has gone worse, they might qualify for vocational rehabilitation. The purpose is to give the employers a chance to stay longer in the working life and overcome potential obstacles in their daily work and to return to their jobs in case they have been on sickness leave for a longer period. Assistive devices are also available for work and study through Kela and are a part of the rehabilitation. (Kela 2016.)

## **5 PIETARSAAREN MEKANO OY JAKOBSTADS MEKANO AB**

This chapter is about the commissioner Pietarsaaren Mekano Oy which is situated at Alholmen by the harbour in Jakobstad. The company name in Swedish is Jakobstads Mekano Ab. The company will be called Mekano in short from here on. It is a small company with twentytwo employees with a business within the metal branch. They do not manufacture any own products but do demanding welding and machining work against orders for other companies in Finland and a small part for export. Mekano uses some chemicals in their work and there are certain regulations how these are to be stored and used and where the information about them is to be kept. Mekano keeps the information about the chemicals in a paper version in files, which make the information difficult to find and time consuming. They wish to find an easier electronical way to store the information that will be convenient for the employees at any time. This is the task that they needed help with as they are too short of staff to be able to do the study and research themselves.

### **5.1 General information and history**

Jakobstads Mekano Ab / Pietarsaaren Mekano Oy is a family enterprise founded in 1960 in Jakobstad. During the fastest growing period of the company the employees were about 30 people of who five were officials and the rest were workshop workers. During the recession in 2009 they had to make some layoffs and today their staff consists of about 20 professional skillful people. The company possesses half a century of experience in metal working. Their field of service consists of machining, engineering and manufacture, for example keels for high-quality sailing boats together with maintenance and repair work. They provide total solutions for demanding industrial applications and for the needs of seafaring and transport. Mekano also sells some special materials since 2009. They have a turnover of about 2 million per annum. (Strömberg J 2015.)

Mekano was established by three strong men from Jakobstad in 1960. They were Verner Strömberg, Gustav Enbacka and Tor Back. Gustav Enbacka was also the managing director of the companies until he passed away in 1974. Verner Strömberg's son Christer Strömberg took over the company then and was the managing director until 2005 when his son, the present managing director Johan Strömberg took over.

In the beginning the workshop was situated in an old building in Gamla Hamn in Jakobstad. Soon after Christer Strömberg took over the steering wheel in the company they built a new hall close to the harbour at Alholmen and in 1976 the company moved into their new premises. Mekano is still situated at the same place in the harbour area of Jakobstad close to many of their local customers. In year 2004 just before Johan Strömberg took over the responsibility of the company, the hall was enlarged by more than the double. The company had gained some new markets and needed bigger space to be able to handle the new products which were for example keel fins for luxury sailing yachts together with some other special products that the company maintains for local industries. (Strömberg J 2015.)

## **5.2 Important customers**

Mekano has dealt with quite a few larger industries as their customers during many years. They are Alholmens Kraft, Baltic Yachts, Boliden Kokkola, Engcon, Japrotek, KWH-Plast, KWH-Pipe, Nautor's Swan, UPM Kymmene, Snellman Ab and Walki Wisa just to mention a few of them. At the time when Christer Strömberg managed the company their largest customer was Componenta which stood for almost half of their turnover. Since Johan Strömberg was appointed to run the company, they have gained some new market shares also from Sweden and Norway. They are Boliden in Norway and Componenta in Sweden. However, for the transport to Sweden, Componenta Finland handles all the export documents and Mekano only orders the transport. (Strömberg J 2015.)

An important collaboration with the Swedish company Engcon started year 2010. Mekano started to serve Engcons versatile joints for excavators. The collaboration led to more work for Mekano and new employments. Mekano invested in a new service van because much of the service of Engcon's products had to be done in the field. The radius of the area they started to serve was up to 100 kilometers from Jakobstad. Mekano started also to take care of the service of the joints that came in for change from entrepreneurs in the whole country. (Jansson 2012.)

By taking part in different exhibitions and fairs in Finland, Sweden and The Netherlands, Mekano have managed to reach a bigger target group, especially when it comes to keel fins. Mekano was participating in Almia subcontractor trade fair in Jönköping, Sweden in 2014 and in 2016 and they were also visiting METS exhibition in Amsterdam for trying to gain some new markets. (Strömberg J 2016.)

### 5.3 Services and special products

Mekano offers manufacturing of different kind of steel structures, machines, equipment, components, spare parts and keels. They have a well-equipped machining center that enables them to carry out tailored assignments according to the client's requirements. Mekano is qualified by ISO 9001 and Inspecta Oy, a third party which supervises the quality of workmanship using various methods, such as x-ray and ultrasound equipment. Mekano is also certified by DNV-GL, approval for maritime workshop. (Jakobstads Mekano 2016.)

The company is also offering sales and assistance in the selection of special materials as Aqualoy 22, Nitronic 50, Nitronic 60 and stainless steel 17-4 PH products. Maintenance and repair service constitutes an important sector of their work. Their own engineering work contributes to a rapid service and reliable and flexible solutions. (Jakobstads Mekano 2016.) Mekano have skilled workers with welding education from Optima in Jakobstad. Optima was also the first educator in Finland that got permission to start an education for welding coordinators in 2015. Welding coordinators are needed because of the strict rules stipulated by European Union when it comes to steel constructions. According to the production manager Hannu Salonen at Mekano the CE-marking is needed for the boat- and transport steel constructions they manufacture. (Grankull 2015.)

Keel fins have become a very important product for Mekano over the years. They are the leading manufacturer of keel fins in the Nordic countries for the moment and their closest competitors are in Italy. The material used for keel fins are Duplex, Weldox, AISI 316 and S355. Mekano manufactures the steel part of the keel fin within approximately 4 weeks. After that the lead bulb will be added by another company and the whole keel will be produced within 7-8 weeks ready for the luxury sailing yacht. All sailing boats need keels that are adapted for their own size and weight as their ballast. Without an appropriate keel the sailing boats wouldn't be able to sail as fast as they do. The largest keel fin that has been delivered from Jakobstad weighed about 90 tons. The price of a keel fin varies from about €30.000 and upwards and is always manufactured to order directly from Mekano. (Strömberg J 2015.)

## 6 ECO ONLINE

This chapter is about the web company EcoOnline which already has a prudent solution regarding documentation and handling of chemicals on the web. Today the company has over 60 contributors in Norway, Sweden, Finland and Switzerland. They arrange education and seminars for companies that choose to use their solutions and wish to work out and distribute safety sheets. About 3500 businesses in North Europe have chosen to use EcoOnline as a supplier of their software. Chemicals are killing more people every year than the traffic does. Further the chemicals are also a big danger for the environment. The writer has been in contact with EcoOnline and has access to a test version of their software. However, it is not possible to test very thoroughly unless you have a company with chemicals that has purchased the service. (EcoOnline 2016.) An application to EcoOnline was found on AppStore in the smartphone of the writer. This means that there already exists an application which was tested by the commissioner to find out how much information could be found. The commissioner realized that there was all information they needed.

The history of EcoOnline started in Tönsberg in Norway in 2003 by the founder Kjell Einar Hamnes who ensured that Internet was here to stay. He had an idea of how to develop a web based solution for production, archiving and distribution of safety sheets. Many years later after establishing offices in three different countries it turned out to be a very good idea. EcoOnline is a company that provides software with focus on handling and documentation of chemicals. A database that links together users, products, distributors and everybody that uses chemicals and provides them with information about different chemicals. Via their database people using chemicals can get access to information about contents and necessary precautions that should be taken by users of chemicals. When companies are taking part of the information in their database they can be assured that their employees will handle the chemicals with care to prevent accidents and injuries. Information about how to legally handle waste in an environmentally friendly way can also be found in the database. (EcoOnline 2016.)

The products that EcoOnline offer have a common function which is to simplify the work with safety and chemical documentation. They can all be found on the web which prevents difficult installations and makes the up-dates of the software automatically. Safety sheets, labels and other important information are easier to access in a viable way. (EcoOnline 2016.)

Partik Friberg who is the sales manager at the Swedish office states that the price for the different services EcoOnline offers are from 2.200 SEK and upwards, depending on certain parameters. It is all up to the customers' needs. (Friberg 2016.) Comparing the costs for investing in such a service with costs for healthcare and rehabilitation in case of an accident, we are talking about a relatively low price. Then again it all depends on how extensive the service purchased from EcoOnline would be. The question can only get a reliable answer after the company that would require such a service gets the actual offer from the supplier. After the interview with the six different respondents the writer discovered that EcoOnline was known to three of them and two of them used some of their services. Still nobody had the application service. However, this means that EcoOnline has succeeded with their marketing and they seem to be growing.



## 7 THE STUDY

In the beginning the writer was supposed to check possibilities of developing an application for safety sheets and how this application could possibly affect the company results. As EcoOnline already has the application, which was revealed later, the study will cover only the company results in case they have chosen to invest in such an application or if they have something similar, and how CSR and sustainable development affects the whole business. A qualitative research method was used by interviewing six companies about CSR and sustainability. The reason to why personal interviews were chosen was that the writer could get a better grip of the answers by observing the body language of the respondents and by asking additional questions if needed. The original number of questions was twenty, but due to how the respondents answered fewer questions might have been asked if the answers covered several questions. The companies chosen were the commissioner Jakobstads Mekano Pietarsaaren Mekano Ab, UPM-Kymmene Oyj Pietarsaari, KWH Plast Schur Flexibles Ltd, Herrmans Oy Ab, Baltic Yachts in Jakobstad and Oy PreveX Ab in Nykarleby. Twenty questions were asked which are included separately at the end of the thesis and which will be gone through in chapters 7.3 – 7.4. The people interviewed were mostly people in charge of the safety in the different companies. The occupation of each respondent will be revealed only for the commissioner as one of the respondents wished to be anonymous. However, each company will be presented separately as company A, B, C, D and E without names.

### 7.1 Qualitative research method

A qualitative research method was used in the study by making personal interviews with a few chosen persons from respective company. The respondents were chosen based on their knowledge about their company's safety questions. Each respondent was contacted by telephone and an appointment for the interview was set. All interviews were recorded and a review was later written down to ease the compilation of the answers.

We can understand qualitative research as a type of scientific research that is looking for an answer to a certain question and collecting evidence. The systems used for finding the answers need to be predefined and no answers should be known in advance. Also, the qualitative research is looking at the perspectives of the local people concerned and to understand a certain problem or topic from their point of view. When it comes to finding out the beliefs, opinions and behaviours of a certain population, qualitative

research methods are seen upon as a very effective way of doing the research to get specific information about these. (Mack, Woodson, MacQueen, Guest, & Namey 2005.)

A qualitative research method can be an observation, an interview, analysis of a content and visual methods etc. You do not become a qualitative researcher just by using a qualitative research method but it might help you to understand the behaviour and answers of your objective. To be able to understand the objective totally the researcher needs to have an open and flexible mind and listen carefully with curiosity and empathy to their own story in their own familiar environment. To be able to do qualitative research thoroughly you need to learn the methods and use the concepts and assumptions that qualitative research is based on, which on the other hand requires a lot of experience and training. (Hennink, Hutter & Bailey 2011, 8-9.)

The interviews can be structured, semi-structured, unstructured, informal and focus groups. A structured interview is normally consisting of the same questions which are asked each interviewee and there is not much variation in the answers and the interviewer is neutral. Structured questions are often used when the researcher has much information and literature about the topic. In semi-structured interviews the interviewer normally has a list of questions underlying the formal interview. These interviews are good to use when the researcher only meets the respondents on one occasion. An unstructured interview is recognized by both parties as a formal interview but the approach is more relaxed and the interviewer does not have a structured interview guide to follow. It is recommended to talk to the respondents on several occasions. An informal interview is being used parallel with observations of the participants without being structured at all. The respondents are in the field and the questions are based on the topic without using any guide. Focus group is an approach where the information is being collected on a certain topic and the discussion is being moderated by a leader. (Qualitative Research Guidelines Project 2008.)

In qualitative interviews, it is important for the interviewer to ask the right type of questions. When a face to face interview is being done, open ended questions are to be preferred. Questions starting with what, how and which are to be recommended and will generate possibilities for the interviewee to answer more detailed according to his or her own mind. Depending on the topic direct questions are to be recommended as they give the opportunity to create conditions for the interviewee which will lead to more talk. When there is a need to ask a sensitive question, indirect questions may be a better alternative. By recording the interview and only writing some small notes the interviewer can concentrate on the answers better and be more present in the situation. (Åhman 2016.)

## 7.2 Validity and reliability of the study

Before a research can be reliable there must be several findings of substantial results. To get the hypothesis accepted by the wider scientific community the exact same research must be done by other researchers under the same circumstances and produce the same results. Some tests might be observed with specific aspects and a compromise of the reliability of the test is then made. People can judge the same object very differently depending upon different reasons such as which time of the day it is and in what mood the observer happen to be at the time. A scientific experiment needs to be reliable and raise the strength of the results found before we can talk about validity. (Explorable.com 2008-2016.)

In the common English language, the word reliable means that something will give the same results every time and that it is true (Explorable.com 2008-2016). One definition of reliability found on the Internet stated:

The ability of an item to perform a required function under stated conditions for a specified period of time (The Free Dictionary 2003-2016).

The definition of validity is described in The Free Dictionary as:

1. the state or quality of being valid
  2. legal soundness or force
- (The Free Dictionary 2003-2016.)

Validity covers the whole research and is proven even though the demand of the scientific research method is not met by the results obtained. All steps of the scientific research method covered and how an experimental design is being structured is being prescribed in internal validity. If the design of the research method is sloppy and coherent even though you have obtained great results, it will compromise your integrity in front of the scientific community. The substance of any experimental design is the internal validity and reliability. There are no qualitative research methods that could be totally successful but control groups and randomization will reduce the problems with external validity. There are chances that some unknown aspects always could give some other results and findings. By including reliability and validity in your research acceptance of the results by the scientific community is more likely to occur. (Explorable.com 2008-2016.)

You can say that the reliability and validity of the study is fairly high though there tend to be difficulties to get measurable answers from a qualitative research. The questions could have been a little different, especially after the discovery of that the application Mekano called for already existed. However, the results of the study when referring to the interviews, would have been the same if another researcher had done the same survey based on the same questions. Most of the answers were based on tangible facts and could not be different if another researcher would ask. The interview questions were asked in the same order but sometimes the answers to several questions came at the same time. All the interviews were recorded and written out fair and could be checked afterwards if there were obscurities.

### **7.3 The interviews**

One of the companies preferred to be anonymous with the answers so the companies are named as Company A, B, C, D and E. The commissioner is mentioned by their name or as the commissioner. The writer chose to start by interviewing the commissioner which would set the level of the rest of the interviews. A semi-structured interview method was used and the interview guide was made before partly based on the needs of the commissioner. All other companies chosen for the interviews were known to the writer as they were all situated locally. The five middle-sized companies were contacted by telephone to make an appointment for the actual interview. Names of potential interviewees were given beforehand by the commissioner for some of the companies and those persons were contacted directly. The companies of which no names were given were contacted by telephone and the writer got the right respondents for the task that way. Success was reached by booking the interviews five working days in a row which made it easier for the writer to focus. All interviews were recorded and below is a summary of each interview.

#### **7.3.1 Pietarsaaren Mekano Oy Jakobstads Mekano Ab**

As mentioned above, the first interview was done with the commissioner Pietarsaaren Mekano Oy Jakobstads Mekano Ab. As they had booked the study the writer saw it as a duty to include them as one of the respondents. The Managing Director Johan Strömberg and the Production Manager Hannu Salonen, who was responsible for updating the safety sheets were participating in the interview. A smartphone was used for the recording which worked well. The writer started by asking if they agreed to that the interview was recorded, which they did. The interview with Mekano lasted the longest as they wanted

to make sure all aspects they were interested in were covered. This turned out to be successful and lead to smoother work with the other interviews. Even though there were twenty questions to ask there was no need to ask them all as the discussion covered several questions and answers at a time. That is also one good reason to record the whole interview to be able to do the analysis more accurately.

According to Strömberg & Salonen sustainable development affects the company results directly when the employees are working and by being healthy and there are fewer sick-leaves, which on the other hand affects the customers directly. Another aspect affecting the results is that some customers demand certain certificates. Also, they have an environment manual but are missing the environment certificate.

All employees in the workshop use some chemicals a few times per month like acid, cleaning chemicals, spray colours and oils. Mekano has a chemical register which the occupational safety system requires. There is a lot of work with keeping the register up to date. The chemicals are being stored in cupboards. The acid is being stored in a locked cupboard to which only the production manager has a key. The safety equipment and the instructions are next to the cupboard. Mekano also has a risk assessment group that are going through the risks regularly. It is not linked to the purchasing though it should be. The employees are purchasing the chemicals when they are needed and there are no rules for that right now. The system should be developed in a more sustainable way. For the time being too much time is being put on the purchasing and time is money. However, when the chemicals are being purchased enquiries are sent to several suppliers or alternatively purchased from a certain supplier. Nobody is responsible for the purchasing right now but Strömberg thought the research questions already had given them some ideas.

Mekano has the quality system ISO 9001 from 2008 which will be updated within three years. The system includes even constructions which they only do in case they do the drawings. The staff has been educated in First Aid by the Rescue Department in Jakobstad but not lately. Regarding the handling of the acid and chemicals the staff has been educated. When new employments are done, the production manager goes through the safety instructions with the help of a checklist. Every time new chemicals are purchased this should also be done. Mekano should make an agreement with their chemical suppliers that they hand in the safety sheets every time a new chemical is being purchased. The rescue plan is placed on the notice boards, eyewash and First Aid equipment are being stored on several places. First Aid courses have only been held twice in eight years. The employees are using goggles every time they are handling dangerous substances. The First Aid knowledge is normally being updated every five years

and the Managing Director is the contact person in case of accidents because of his extensive First Aid education.

The employees normally go via their foreman when they need information from the safety sheets. However, this system is far too slow and actions should be taken before the information is found. To apply the safety sheets into the computer system and the smartphones would be a genius idea but this company might be too small for investing in such a system so maybe the paper versions are still to be preferred. Today many of the safety sheets are only in English though they should be in both Swedish and Finnish instead. Most of the employees do have smartphones so to use an application would theoretically be possible. However, the keypersons who have a company phone could have such an application but not the employees who have only private smartphones. Instant access to the safety sheets that could be forwarded electronically directly to the emergency centre would be good. The managing director thought that such an application would affect the profit positively. Time would be saved and time is money. By minimising working accidents the positive result can be seen immediately. The environmental certificate can affect the customers in a positive way and sustainable development over all would affect the profit. Mekano does not use sustainable development in their marketing today. Regarding the investments Mekano would be ready to do for sustainable development, they did not wish to answer but maybe some kind of a small annual fee for a few smartphone licences for example. Mekano wishes to concentrate on their core business and were not ready to put too much resources and effort on sustainable development.

### **7.3.2 Company A**

The second interview was done at a company which is called company A. The security was so strict so the initial phase of the meeting was outside the gate where the writer had to wait for the security manager. By the gate all visitors received a reflective vest to put on and a chip to use for checking in and out with. The security manager was an experienced man who had worked with security questions for many years and knew his work by heart.

Company A is a big corporate group within the forest industry. In Pietarsaari there are 300 employees plus twenty to thirty on other functions. Company A have their own security system and have sustainable development well implemented in their business. With the help of sustainable development, the most important aspects are taken into consideration such as personal resources in the right way and the environmental aspects. Cost and material efficiency leading to less environmental effects. In front of the so

called circular economy which is another description of sustainable development, they have started a new campaign where the side products are being re-used for new products. This is to reduce the waste to the landfill site. This campaign has been going on for several years. The papermill is energy self-sufficient today and produces also electricity for selling. The respondent thinks that sustainable development does affect the company results if you do it the right way. The investments of energy effectiveness to achieve less steam exhaustion is one way of implementing sustainable development into the company. Apart from producing their own electricity that they also are selling, investments in new technology are relevant to get one step further.

Two different types of chemicals are being used which are process chemicals and maintenance chemicals. Process chemicals are more in volume and they are being used so much that Company A belongs to the category “Turvallisuusselvityslaitos” (=institution of safety reporting). Tukes, the Finnish Safety and Chemicals Agency, are monitoring the plant when it comes to the use of chemicals. Inspections are carried out once a year and they have clear safety measure. All chemicals are stored in embanked cisterns so in case there is a leakage it stays in the embankment. In case the leakage is elsewhere there are possibilities to steer it to a buffer tank where the chemicals can be remediated to make them less dangerous. Company A has a system called “Kemikaalien ennakkohyväksyntämenettely” (The preapproval procedure of the chemicals). Before new chemicals are taken into use they are controlled to eliminate toxic substances. There is a list of forbidden substances and they need to meet the requirements of environmental labelling that we and our customers have and they need to be safe for the food production. That is how the examination is being carried through to avoid toxic chemicals getting into the processes.

Company A has several quality systems and they are; ISO 9001, ISO 14001, EMAS, Energiansäästösopius, ISO 22000 will be certified this year which is a product safety certificate, occupational safety certificate OHSAS 18001. All certificates are found on the website Certificate finder. (The writer checked the webpage and found all the named certificated plus several others.) There are also certificates for the origin of the wood as PEFS CoC, FSCR COC. (UPM Pulp 2015.)

Company A has a minimum requirement for First Aid knowledge. The whole staff has the possibility to go the optional First Aid course. The recommendations are that 20 % of the staff within the production and those who handle chemicals are educated in First Aid. The First Aid education is held regularly every spring and fall in both Finnish and Swedish. The emergency showers are strategically placed around the area and there will be an alarm to the control room every time the showers are in use. There are rules for the employees' safety equipment to prevent accidents. Eyewash is also placed on strategic places. If

there is still an accident the staff should know without searching how to proceed. Company A has their own database with chemical safety plans where everything should be included but the quality of the safety plans is not always the best. The electronic database on the Intranet is available for everyone. The chemical safety plans are updated regularly via the purchasing department when they are in contact with the suppliers. The staff has been educated to know where to find the safety instructions and it is included in their job descriptions.

An internal standard is a chemical card that is created which can be found physically on the exact spot where the chemical itself is. On an A4 sheet there are the most important details about safety equipment that must be used for each chemical and what kind of First Aid procedures should be taken. Discussions about using a QR code have taken place but the system that they are using does not support such an application yet. The information should be taken from the database and it is such a comprehensive task that it is too difficult to do today.

Sustainable development will continue with the chemicals and how to get chemicals from reusable sources. Marketing this kind of product development has not been done by anybody so it would have to be researched. Using sustainable development in marketing is mainly with the patent of the use of green liquor sludge as sulphur removal in power plants. This is a side product coming from cellulose production that can be used instead of limestone which is not renewable.

“Gottlanders can say thank you to ..... for using this side product which reduces the mining of their limestone for this purpose” (Respondent A 2016).

### **7.3.3 Company B**

The third interview was done with Company B, which is a middle-sized company that produces flexible packing material with 55 employees. Company B became part of a reasonably new international organization in year 2012. Only in Jakobstad the turnover per year is about 20 million. According to the respondent Company B is not that active within sustainable development. Still, they reduce the use of packing material by making thinner films, which certainly can be connected to sustainable development. The respondent thought that as the thickness of the packing films is being reduced it affects the company results negatively as the weight is then also reduced and the customers buy less. But recycling the material internally gives a positive result.



Very little chemicals are being used in the company apart from solvents and cleaning chemicals for machines. The chemicals are only used as a side product. No dangerous chemicals are used in the production. In the maintenance of the tools some chemicals are being used. The employees in the production are using cleaning chemicals and in the laboratory they were being used to some extent. All chemicals are stored in a metal cupboard. One person from the maintenance is responsible for the chemicals. Safety files and sheets are kept by the production lines. For the time being there is a safety project ongoing. One part of the project is about the chemicals.

Company B is approved by ISO 9001 and work with HACCP systems for the food industry. They will also add some other certificates within next year. There is a safety project ongoing in the company where security education has been implemented. Close call situation routines have been changed and must be reported. In the security project First Aid education is being proceeded with. The First Aid information can be found on safety sheets by the production lines. Key persons are getting First Aid education in cooperation with another company that is in the same building. There need to be key persons in every department. Experience has taught Company B that First Aid equipment and eyewash possibilities need to be close to the production lines and the safety sheets on visible strategic places. The suppliers of the chemicals could inform more about the different chemicals. There are handling courses of chemicals that are being arranged locally.

According to the respondent it would probably make it easier to handle if there were an application. That could include information from the safety sheets but not too detailed only the most important information. It was hard to believe that this kind of service would affect the company results but the sick leaves would of course be affected. The respondent could not advise how much the company would be prepared to invest into such a service but not thousands, as accidents of that type do not happen but it would be wise to do as a precaution. The logistics of the chemicals are important for Company B. Some chemicals are stored under the ground in containers.

#### **7.3.4 Company C**

The following interviewee, Company C had 105 employees in the main factory and 20 employees in the subsidiary, which is situated close by. Company C is in the plastic/chemical branch. The respondent said that sustainable development is more and more important and that bigger customers are asking about

it. Further that the company has an environmental goal that they are trying to work towards and successively get better in some areas. For Company C sustainable development is about the transport and how to minimize scrap in the production. To the question if the interviewee thinks that sustainable development affects the company results, the respondent answered that it of course affects the results a great deal. They must always think how much is worth investing and how much they can get in return from the investments. They work with energy and resource questions and of course to minimize the scrap and waste.

Company C uses chemicals in the maintenance work but the respondent could not say how much they use. They need cleaning chemicals for maintaining the tools. About ten of the employees in the workshop are using chemicals. The chemicals were stored in a cupboard in the workshop and by the assembly. There might be some chemicals in use out in the production. Oils and similar were being kept in a container which was locked. The workshop manager purchased all the chemicals for the maintenance and he was also responsible for the chemicals. All chemicals were listed and there were safety sheets for each of them. The sheets were kept in a file in the office and they were also kept out in the production. In case they had some chemicals that were on the black-list they were being changed into something safer. Black-listed chemicals are toxic or bad for your health. When new chemicals were purchased the work-team foreman went through the work and when needed also the safety of handling the chemical.

The quality systems approved for were ISO 9001 and the environmental quality system ISO 14001. They had a safety and rescue plan where the rules and regulations, in case of accidents, were included and this plan was gone through with every new employee in the introduction. The same time they were being informed where the information was kept. The staff was being educated by TTL (Työterveyslaitos) about safety questions with chemicals. The physical file of the safety and rescue plan was kept out in the production. The information could also be found electronically but not everyone had access to the computers only the white-collars. The First Aid knowledge was being kept up to date by training.

To simplify the access of the safety instructions offers had been received from many software suppliers on electronical safety systems, but they had not invested yet because of the cost. The costs have been high in comparison with the small number of chemicals that they used. Company C had been thinking about using an application for smartphones as a tool for finding the information about the chemicals. The disadvantage would be that their WIFI were not always well covered on the factory area and the information must be available for everyone. Another solution could be that the keypersons or the foremen could possibly have such an application. It is also difficult to get safety instructions in both Swedish

and Finnish. If they were to invest in such an application it should consist of the hazard statements, what kind of security equipment should be used when using the different chemicals and First Aid information. The respondent did not think that investing in such software would affect the company's profit because they were already following a kind of system and such an investment would only be an internal investment. Due to the relatively little time they put on this kind of work a realistic investment would be around 1000 € per year.

### **7.3.5 Company D**

The fifth interview was done with Company D who has 170 employees locally and 190 in the whole concern. Company D is in the chemical business branch. The answer to how sustainable development is integrated in the company was that they had made some changes in their organization and now there is one employee who is taking care of the service. By reducing scrap and with new arrangements they will be able to reduce scrap when the production lines are getting started. The end-product should be ready and the risks will be reduced. The respondent was positive about the fact that sustainable development affects the company results. Being well prepared it should work better. Most of their raw material can be recycled in the production mixed with about 10 % of new material.

Safety sheets exist on all chemicals Company D uses. About five years ago they received a black-list on chemicals that should be eliminated from the market and they have changed such products to safer ones. In the department of maintenance some chemical products were being used. Safety sheets are received from the suppliers with every new chemical. About ten people in the maintenance were using chemicals on daily bases. The chemicals are being stored in separate cupboards. The cleaning chemicals used by cleaning personnel are being kept in another cupboard. Analyses are done on every new raw material. Company D needs to be certified within the food industry for some of their products. This is part of their sustainable marketing. They will have a social audit done in February 2017 because one of their customers demands such an audit. The audit is done every second year when everything is checked, security equipment, sheets and even the dressing rooms, salaries etc. When chemicals are purchased the buyer demands the safety sheets from the suppliers and enters them into the system. The safety sheets are found electronically on the computer and physically in every chemical cupboard. It is easier to find the information physically in the files than on the computer, said the respondent.

Company D are approved by the quality system ISO 9001 and ISO 14000 plus the social audit that is being carried out by one of their customers. They have evacuation exercises twice a year with the whole staff. Their First Aid information can be found in the computer system and physically in the chemical cupboards. There are about twenty persons that have the First Aid card which is being updated every three years. Team leaders and foremen have got these cards. The occupational safety council group of Company D go through the risks regularly, which is about four times per year. The risk analysis is done internally but the service is sometimes bought from external organizations. Now Company D has one employee who works only with occupational safety questions two days a week.

Company D has implemented the safety sheet information into their computer systems. They are not able to get into the server with their phone today but it could of course be developed. The respondent thinks that by investing internally on safety it does affect the company results. They are enlarging the facilities right now at the time of the interview and the security system is very important. Security equipment is important which they buy from another company today. It is difficult to say exactly how much in figures the security investments are. During the building-period the risk of accidents is bigger due to lack of space.

### **7.3.6 Company E**

The last interview was with Company E in Jakobstad. They are situated in the harbour area of Alholmen due to the line of business they are in which is the boat and composite business. Company E are a part of a large concern from Germany who owns the stock majority. Concerning sustainable development Company E is trying to minimize all raw material that they use and purchase to be able to use the right amount. They recycle material and are the only company within their branch that are approved by the DNV environmental certificate ISO 18000. This company makes great efforts in sorting their waste. Carbon fibre that they use a lot is hard to recycle so they try to use the right amount of the material to reduce wastage. Handling the waste is also a cost for them. The respondent thinks that sustainable development does affect the company results positively. By doing right from the beginning time, money and material are being saved.

Company E uses about 1000 different chemicals today. About 200 persons get in contact with them. All chemicals are stored in separate rooms. In every storage-point there are two people dedicated for only handling and taking care of the chemicals. That way they can control what is coming in and going out.

It is stipulated in law how to handle chemicals which is followed by Company E. The people handling the chemicals have gone to a working safety course for handling chemicals. Via Finnish Institute of Occupational Health Company E had a safety course as the only company in the world of how epoxy products are affecting humans when processing carbon fibre. It was a big study that was done and Company E was a pilot company in the study. Then it is up to the staff to make sure they use the safety equipment, which they still not always do but the management talks to the employee in such cases. All newly employed are getting education in safety.

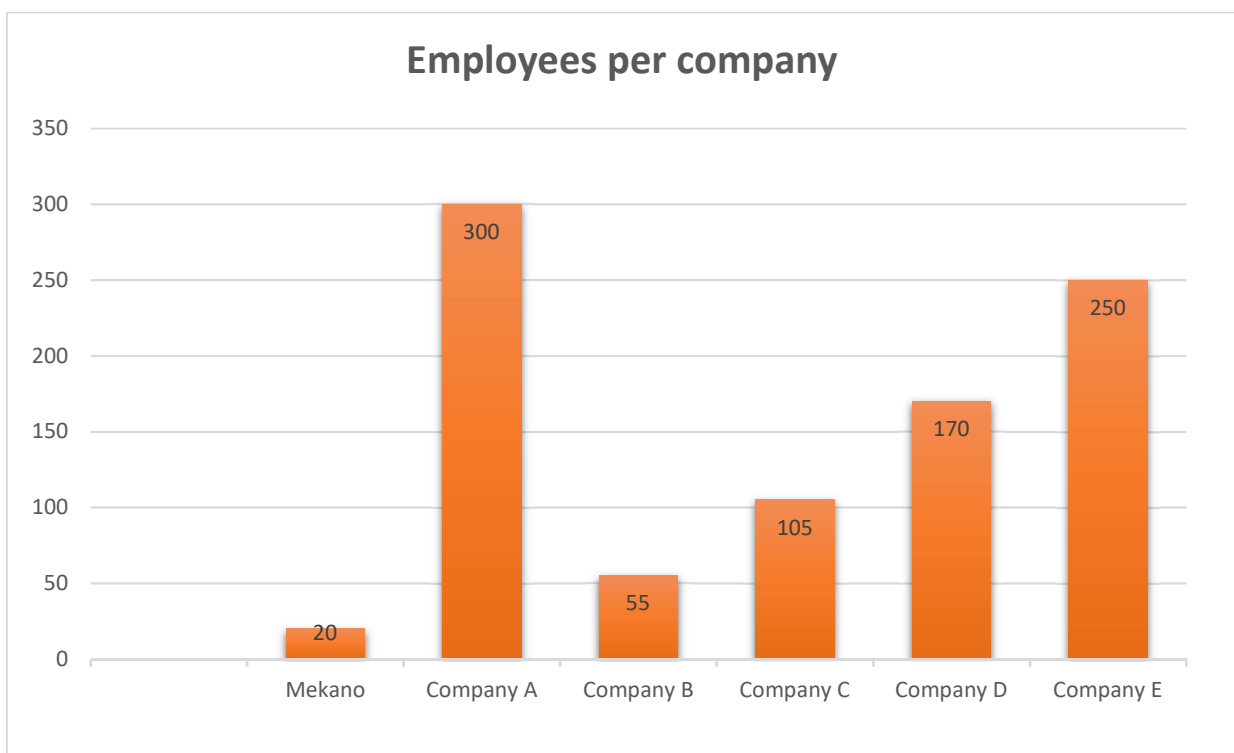
Company E has their own quality system which is according to DNV 9001 norms and occupational safety certificate DNV 18000 and additionally environmental certificate ISO 14001. They work a lot with deviations in detail. This year there have been eight accidents that were internally rated as work accidents. Company E has worked with safety questions since 2008 when the certification systems first were introduced to them. In case somebody would get exposed to the chemicals precautions have been taken. There are a few persons within every working team that have an updated life-saving First Aid education. Everybody has a safety card the sub-contractors included. There are also fire and emergency groups. Safety sheets are being kept in files outside the chemical storage and in the computer system. If something happens, the information from the safety sheets is being transferred digitally to the Health Centre before the person gets there. There is a data register for all chemicals that are being used in the company. The files are being kept in alphabetical order so they are easy to find. The staff are renewing their First Aid knowledge by going to courses regularly. The staff knows that the safety and security information is kept physically in files and in the data base in the computer system. Improvements are made continuously with the help of 5S system (Lean) which is a priority issue. Company E has invested about half a million in this system.

To simplify the access of the safety instructions further, the supplier of the raw material (chemicals) must supply the safety sheets. By using this service correct the supplier will be of great help and extra work can be avoided. EcoOnline is known to Company E but they have not purchased the application. They use the environmental certificate in their marketing which they are very proud of. The boat branch is not very good with the green thinking but have started to look at the fuel consumption as an example. The trend is going towards more green thinking and Company E is one step ahead. They are trying to avoid teak as material in their sailing yachts, as it is a rain forest material, and replace teak with oak for example. Painted surfaces and linen is coming very rapidly. Linen is cheaper than teak which reduces the costs. Company E has tried to avoid toxic material in the bottom paint. Septic tanks are also being built into the yachts which was not common before. The cost for the 5S system is about half a million

euros. Company leaders are often their customers and they are very aware of the environmental aspects today. Another development to a greener environment is that they have started sorting waste in their subsidiary but that is more challenging as it is in another country. Taking care of waste in the office is the next challenge that needs to be thought of.

## 8 ANALYSIS

The first questions asked to the respondents were general questions about the size of the company and how many employees there were and in which branch their business was. The companies were all in different branches and all of them used chemicals. As seen in the summary from each interview the companies were mostly middle-sized companies of which some of them were part of a bigger concern or had subsidiaries. The size of the companies can be seen in graph 1 below. The subsidiaries have not been included in the graph.



GRAPH 1. Employees per company

### 8.1 How sustainable development is implemented in the companies

All respondents were aware of sustainable development which was implemented in all companies but in different ways. There were only one of the respondents that said their company was not active within sustainable development, however it cleared later in the interview that they were by minimizing scrap

and by using less raw material which affect the results. One of the respondents emphasized the importance of thinking sustainability when it comes to the transport. However, the transport aspects are not included in the thesis.

All respondents replied positively to the question if sustainable development affects the company results positively. One of the respondents thought that some of the sustainability arrangements affected the results negatively which related to the fact that the weight of the actual product was reduced. Recycling and minimizing scrap and waste was common for all companies. Some respondents said they had customers that required sustainability which in the long run give positive results when partnerships for a longer period can be built. Commonly one could say that with good planning and preparations and by doing everything right from the beginning to the end a positive result will be reached with sustainability integrated in the companies.

## **8.2 The use of toxic chemicals**

All respondents said that chemicals are being used in the company and that some of them are toxic. A register on all chemicals that are being used in each company must exist according to law, and it should be updated regularly. All companies kept their chemicals in separate storage places and the toxic chemicals were stored in locked cupboards or containers. Mekano needs to update their routines with the purchasing of the chemicals but the storage and the listing of the chemicals was in order. However, when it was possible the companies tried to change the toxic chemicals to substances not dangerous for the health. Companies A, C and D have a black-list on forbidden chemicals/substances. Company B did not have any dangerous chemicals and Company E uses big amounts of toxic chemicals due to their line of business and no substitutions exist. Companies C and D have about ten people that get in contact with the chemicals, company E had about 200 people and companies A and B did not give a figure of how many of their employees get in touch with chemicals regularly.

The responsibility of the chemicals was arranged in different ways in the companies but the majority had one or several persons who was responsible for the storage and safety of the chemicals. The production manager was responsible for the chemical register and the risk assessment group for eliminating the risks at Mekano. Company A did not say who was responsible for the chemicals but they had a routine

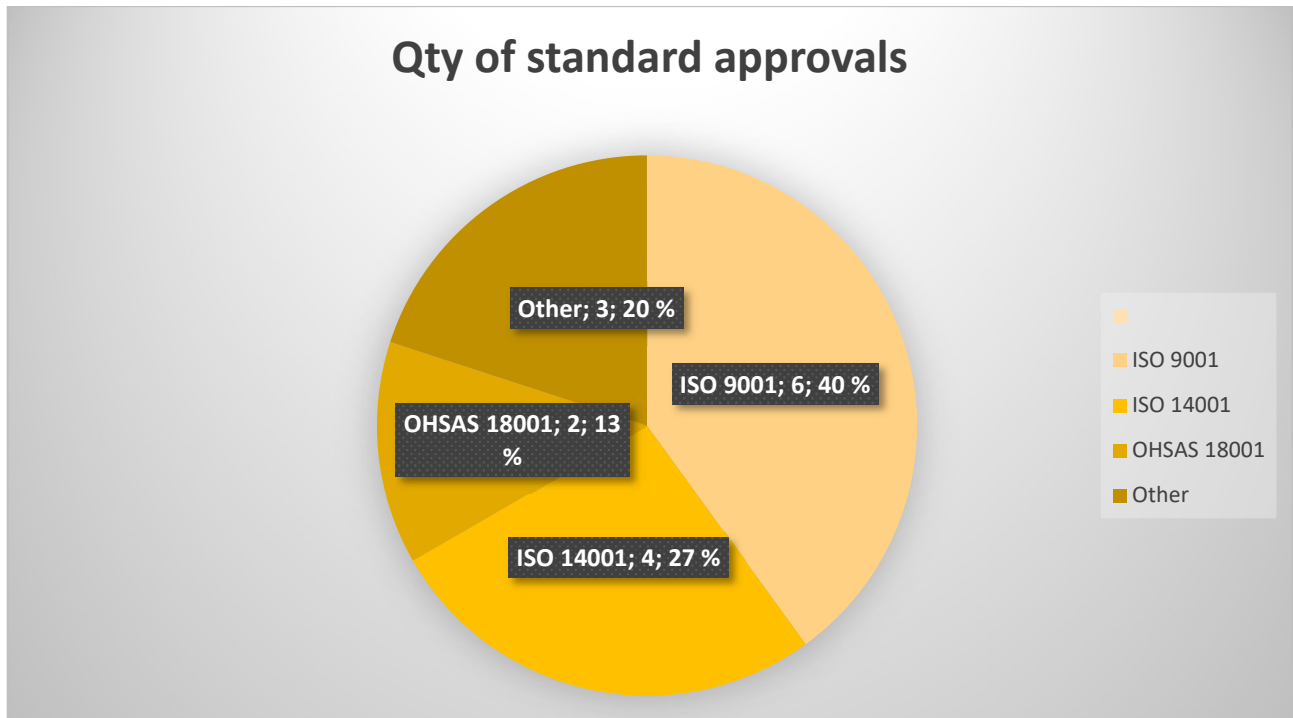


and security system to follow for the purpose. All companies had their own routines concerning chemicals for checking that the rules and regulations were followed. Company B and C had one employee responsible for the chemicals and Company E had two employees per storage place.

### **8.3 Quality systems and First Aid**

Question number 9 was about quality systems and if the companies have such. All companies inclusive the commissioner were approved by DNV's quality standard ISO 9001 and four of the companies A, C, D and E were approved by the environmental quality standard ISO 14001. Companies A, B and D have also other standard approvals which will not be mentioned by name. It is satisfactory to know that it is common to be certified by a quality system and that Finnish companies choose to invest in such. Many customers find their suppliers more reliable if they are approved by a quality system which shows that the company has made an admirable effort of doing an honest and good work environmentally and socially. graph 2 below shows how common and important the quality approvals are and the graph gives a better overview of how many quality systems companies have and how they are divided between the companies. ISO 9001 is a quality management system that will help the whole organization and help the management processes to be improved and become more competitive both locally and globally (ACS Registrars 2010). ISO 14001 is an environmental management system that sets the requirements that can be used for improving an organization's environmental performance (International Organization for Standardization 2015). OHSAS 18001 is an international quality standard that specifies the performance of occupational health and safety management (OHSAS 18001 Occupational Health & Safety Zone 2015).

Mekano is striving to adapt sustainable development into their company and they believe that it will be even more important in the future. People are thinking more and more about their own health and the authorities are demanding it. Mekano is offering their staff TYKY-notes (see chapter 4.1 about TYKY). TYKY is a part of the Occupational Safety which can clearly be linked to the social aspect of CSR and here we are talking about preventive actions.



GRAPH 2. Quantity of standard approvals.

All respondents said that the whole staff or part of the staff have First Aid knowledge. Company A has recommendations that 20 % of the staff should have First Aid education but the course was optional for the whole staff. Companies B, D and E have key persons with First Aid education which are team leaders of work foremen. Company E also demands that the whole staff and their sub-contractors have the occupational safety card. Työturvallisuuskeskus (=Occupational Safety Centre) is an organization that offers various safety courses. figure 6 shows what the card looks like. The respondent from Company C said that the staff is being educated in First Aid. All companies provide their staff or part of their staff with First Aid education possibilities regularly which may vary between twice a year up to once every five years. First Aid equipment such as eyewash and First Aid information are stored visibly on strategic places close to the production lines in all companies.



FIGURE 6. Occupational Safety Card. (Työturvallisuuskeskus 2016.)

#### 8.4 Improving safety procedures and company results

All companies have safety instruction sheets physically also close to the production lines. Additionally, four of the companies A, C, D and E have the safety sheets electronically in a database. The commissioner and Company B have not got the safety sheets electronically but both were thinking about improving their systems. All companies have somebody in charge of the safety sheets. Companies A, C and E have one or several persons responsible for keeping the safety sheets up to date and they are also the contact persons for the rest of the staff regarding the information about the same. However, all companies are looking through safety questions when they are employing new people.

The QR code system that Company A mentioned has been introduced by the Japanese and QR means Quick Response, as the codes can be read fast by a smartphone and store data as URL links, geo coordinates and text (Lyne 2009). An application for this kind of service might not work very well in every place in the factory area so that is something that needs to be thought about. Everything that makes the routines easier to handle should be taken into consideration when trying to increase the efficiency. The investment in such an application should payback itself and different calculations should be done to find out the advantages of it. (Respondent A 2016.)

The answers to question 14 how the access to the safety instructions could be simplified varied depending on what kind of a system the companies already used. The commissioner did not have an electronic system installed but were receptive to developing one. They were also interested in learning more about the possibilities of using an application that could be installed in the keypersons' telephones. For installing such a safety-system it would cause some extensive investments. Company A who had a highly-developed security system did not have the application but were interested in using QRC codes at certain points. However, as their system did not support such an application it would cause extensive investments. However, if the investment makes routines smoother it should be taken into consideration. Companies D and E also had highly-developed systems but no application for smartphones. They had not been thinking about the possibility. EcoOnline was known to Company C who had received their offer and E who already used their services. Company B was positive to the thought of storing the safety sheets electronically and to the use of an application. All respondents had the opinion that the safety sheets are either good to have electronically or they would be good to have. The commissioner looked positive at the thought that information could be sent directly to the emergency unit or the health centre.

By investing and updating the safety systems, the majority of the respondents thought it would affect the company results in a positive way, at least in the long run. The commissioner was emphasizing that by saving time and money and lowering the sickness leaves the efficiency will be improved which causes positive vibrations and would enhance quality and productivity. They highlighted the fact that also the customers are getting more and more aware of the environmental aspects and that green thinking is becoming more common. Nevertheless, the commissioner has not used sustainable development as a marketing campaign. The respondent from Company B found it hard to believe at first that such investments would affect the profit but during the discussion it turned out that the sickness leaves would get lower, which on the long run does affect the efficiency in the whole company. The respondent from Company C did not think that by investing more in the safety system would higher the company profits, even though they were positive to the investment. The respondent stressed the fact that it would only be an internal aspect with extra costs. Whether it could be a way of marketing themselves was not an alternative. For Company A it was obvious that anything that makes the work run smoother is increasing the efficiency which means winning more time and time is money. Company D gave a straight yes to the question if such investments would affect the company profit. According to the respondent there was not a question about it as they already had a good working electronical system. Company E again already has an electronical safety system which they say is working very well.

Regarding the marketing of the sustainable development you could say that there were two companies that directly market themselves with the help of their sustainability. They were Company A that uses their side product patent as sustainable marketing. Company E again was the only company within their branch in the world that has managed to get an environmental certificate approval by DNV. The commissioner thought that it would be positive to use sustainable marketing as the customers are getting more and more aware of green thinking in today's world. That brings us to Company D who has a customer that demands a social audit every second year which they arrange themselves. It did not appear from the interview whether D markets themselves with the help of this customer but it could of course be possible if they had such a partnership that both could win on it. Company B could have given a different answer in case somebody from the sales and marketing would have answered, but that is an assumption and cannot be taken into consideration in this thesis.

We must be aware of that the interviews were done with only one person from each company, apart from the commissioner, and that the answers could differ in case the management from sales and marketing for example, would be present. However, these were the answers that this study was given and had to work with. During the interview with the commissioner the views of the managing director and the

production manager did vary from time to time as they were looking at the different questions from slightly different angles. An overview over the respondents' opinions about the facts that the environmental and social aspects of sustainable development would affect the company profits is shown in figure 7 below. The negative factors to the left compared with the positive factors to the right show that by investing more in computer systems for making the safety sheets and First Aid information more accessible it would facilitate the internal processes and lead to increasing profit as more time could be put on the companies' core business.

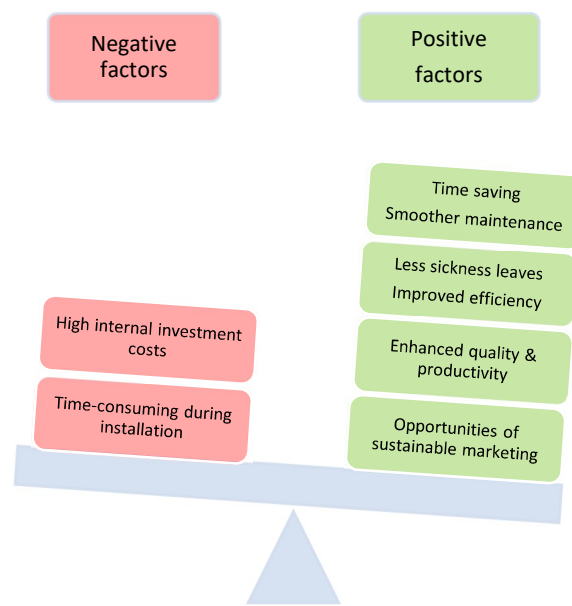


FIGURE 7. Negative factors compared with positive factors with investing in safety systems.

## 8.5 Summary

As seen on the figure above the benefits are heavier if the companies would make investments in their safety systems. The trend amongst the companies is going more and more towards green thinking and by keeping the CSR economic, environmental and social aspects in balance profits will be gained in the long run. The companies that were not thinking that profits could be gained by making investments in the safety systems, were companies that did not use that many toxic chemicals. All respondents were positive to the thought of doing some investments for the safety purpose and sustainable development. The bigger companies that used a lot of chemicals had already a well working safety system and, they were also very much aware of how important it is for the staff that these things are working well and not

taking too much time from the core business. On the other hand, the bigger companies that used a lot of chemicals also had special people employed that were only working with these questions. For a small company with less employees it is common that the person responsible for the safety also has other tasks on his or her desk. This is a factor that smaller companies must live with and just for that reason it would serve them better to make the investments for the safety systems once. After that the maintenance would be smoother and they could concentrate more on their core business. For Mekano it could be wise to collaborate with EcoOnline or some other similar company, if there is any, who has a well-developed system which would not demand too much maintenance, as Mekano does not have the resources for this kind of work. Simple actions to be taken towards even more sustainable thinking could be by placing clear signs in the workshop and outside telling how and where the waste is stored until it is being picked up for recycling.

When it comes to the question of sustainable marketing or using sustainable development as a marketing method, the respondents' opinions varied slightly. Again, it was the bigger companies with well-arranged safety systems and with sustainable development integrated into their businesses that used it as a marketing method and as a competitive advantage. The smaller companies did not use sustainable development as a competitive advantage in their marketing, which you could say is understandable as they did not have a patent of some kind or used dangerous substances. Nevertheless, most of the smaller companies were well-aware of the sustainability and were not foreign to the thought of using it in their marketing. As mentioned earlier the answers from the different companies could have differed if sales and marketing people had participated in the interviews. Therefore, the answers from some of the companies were not 100 % reliable but this was what the writer had to work with. For Mekano the sustainable marketing could consist of lines and phrases on their website regarding their support of sustainable development and how they are practising it. If they choose to start the collaboration with EcoOnline, this could be a way of marketing their sustainability. Customers are attracted to suppliers that think about and work toward a sustainable environment and social support, which also will give them a good reputation both locally and more widely.

## 9 CONCLUSIONS

Writing the thesis and doing the study about the sustainability in different companies have been very educating and given the idea to possibly find out more about this topic. The objective of this work was to find out how companies had implemented sustainable development into their business and if they were using it as a competitive advantage, gave the writer a good idea how companies look upon this highly relevant question. It was satisfactory that most companies think about these aspects and that they make continuous improvements. The aim of finding out whether time and money can be saved by making investments in more automated safety systems was successful. Companies that were using more toxic chemicals had highly developed safety systems and made continuous improvements and kept their staff up to date with the knowledge by arranging education regularly. Due to the high development of technology even smaller companies as the commissioner are willing to invest in the technology. The commissioner who does a lot of subcontract work for bigger companies has seen the advantages with using a more automatic safety system, though it also can make some routines more complicated. For example, when a subcontractor needs to enter the factory of a bigger company the security systems might make the procedures more difficult and a good planning before is therefore essential.

The theory about CSR was interesting and helped to get more knowledge about the definition of it and the parallels to sustainable development. The overall policy and basic idea of both definitions turned out to be very similar, as both were looking at the economic, environmental and social aspects and the balance between them. The topic is highly relevant in today's world with poverty and misery on this overcrowded earth. Therefore, subjects such as Fairtrade, ecological economics and green thinking were included to give a better understanding of the definitions Corporate Social Responsibility and sustainable development, though one would wonder what they have got to do with the B2B market. The ten steps on the way to sustainable thinking that was illustrated in figure 3, shows the fact that sustainable thinking needs to start from the individual itself before it can be implemented into the business world. This means that the company management must change their way of thinking on a personal level before it can be introduced to their staff.

It was obvious to write about Occupational Safety because it is an important part of the Finnish companies which goes hand in hand with the safety systems that are being used. To generalise any kind of safety system would not be wise because of the many different branches and sizes of businesses there are in Finland and in the whole world. Occupational Safety and risk analysis are known to the writer from previous posts in the working life and the understanding of it has existed for many years among

company leaders and people working on the factory floor. Anyway, continuous improvements within Occupational Safety are important as the technology and working procedures are under constant changes.

All companies that participated in the study still had safety instructions in a physical form even though some of them had highly developed electronical safety systems which is essential. The electrical power can always be lost for some periods in companies from time to time and then the staff must know where to find safety instructions in case they are needed. For daily use and for quicker maintenance of the safety instructions and systems an electronical system can still be preferred as it saves time and money and the staff can concentrate on their core business.

Sustainable marketing is a broad topic and can be thought of when you do marketing in a sustainable way or when you use sustainability as a competitive advantage. By teaching sustainable thinking to our children they will grow up with sustainability as a matter of course and an automatic implementation in both their private lives and in business life will be reached. The company staff need to be thought of as one of the most important investments in a company and they must feel that they are noticed as humans and that their work is appreciated. When company leaders manage to reach such a goal, most of their work has been done. We need to remember that the economic, environmental and social aspects need to be in balance to get the best possible sustainable solutions.

You can say that in today's business world sustainable development has been manifested and that more and more companies have implemented it into their business in different ways. Different solutions exist for implementing sustainability into companies which are being offered in the B2B market. EcoOnline that offers help with digital solutions of keeping track of the safety sheets in companies and Lean as a conception for a whole company are just some examples, and of course Occupational Safety which is stipulated by law in Finland. By spreading the knowledge of CSR and/or sustainable development future generations will be able to live and use it as a natural part of their daily lives privately and in business. Sustainable development will help society to think of the environment and the individual which in the long run will affect the economic aspect.



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**Interview questions**

1. What is the size of your company, how many employees are there?
2. In what branch is your business?
3. What do you think about sustainable development? How is it implemented in your company?
4. Do you think sustainable development affects the company results?
5. Do you use dangerous and toxic chemicals in your company? How much and how often and by how many employees? Daily, yearly and over all?
6. How and where do you store the chemicals that are being used in your company?
7. How have you arranged the responsibility of the safety for the chemical stock?
8. Which rules and regulations do your staff follow when using the chemicals?
9. Do you have a quality system? If yes, what kind of a quality system do you have?
10. Has the staff been educated in how to proceed in case somebody is getting exposed to the chemicals? If yes, how?
11. Where and in what form do you store the **First Aid** information in case of accidents with chemicals?
12. How are the employees being kept up to date with First Aid knowledge?
13. How have you ensured that the staff knows where to quickly find the information if needed?
14. How would you suggest that the access of the safety instructions could be simplified?
15. What do you think about using an application in your smartphone as a tool for getting more information about chemicals if there was one available?
16. How would you like your employees to use such an application?
17. Give some examples of information that you think the app should consist of.
18. Do you think such an application would affect the company results? In what way?

19. How much would your company be prepared to invest in such an application if there would be one on the market? (You can give the answer in figures or in % of total costs.)

20. Do you have anything to add?