Eveliina Langenoja

DEVELOPMENT OF THE CLIMATE PARTNERSHIP OF SATAKUNTA

Degree Programme in Environmental Engineering 2016



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Langenoja, Eveliina Satakunnan ammattikorkeakoulu, Satakunta University of Applied Sciences Degree Programme in Environmental Engineering February 2016

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Climate partnership is a concept that aims to lower the climate emissions of the municipalities and the companies in them. It is in use in 4 cities or regions in Finland.

This thesis was made for development purposes. Climate partnership in Satakunta is still in the beginning of its way and it needed to be developed.

At the moment Satakunta has 12 climate partners: 9 companies or communities and 3 municipalities. The companies involved are mostly small and middle-sized enterprises. There have been some annual meetings, for example, two in 2015. At the moment, there are no following procedures.

The project in charge of climate partnership in Satakunta is Satahima – Kohti hiilineutraalia Satakuntaa (Satahima – Towards carbonneutral region of Satakunta). This project is managed by the Environmental Office of Pori and it is funded by the European Regional Development Fund. Climate partnership was started already in a previous project called Ilmastoasiat kunnassa – toimeenpanoa ja yhteistyötä (Climate issues in a municipality – enacting and co-operation).

The development process was realized with benchmarking and interviews. All the current climate partners were interviewed and other cities in Finland with climate partnership were benchmarked. These cities were Helsinki, Lahti and Joensuu. The ideas that arose from benchmarking were, for example, own internet pages and cooperation with higher educational organizations.

The development ideas concern mostly about handling large amounts of enterprises, follow-up procedures, and annual partnership meetings and events. The most important feedback and ideas from the interviews were that the companies would like to have some follow-up procedures, but not reporting, and that the annual meetings should be more accessible. This meant that they should last only a couple of hours and they should be organized somewhere near.

SATAKUNNAN ILMASTOKUMPPANUUDEN KEHITTÄMINEN

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Ilmastokumppanuus on konsepti, joka tähtää ilmastopäästöjen vähentämiseen sekä kunnissa, että kuntien alueen yrityksissä. Sitä toteutetaan neljässä kaupungissa tai maakunnassa Suomessa.

Tämä opinnäytetyö tehtiin kehittämistarkoituksessa. Ilmastokumppanuus Satakunnassa on vielä alkuvaiheessa ja se tarvitsi kehittämistä.

Tällä hetkellä Satakunnassa on 12 ilmastokumppania: 9 yritystä tai yhteisöä ja 3 kuntaa. Mukana olevat yritykset ovat pääasiassa pieniä ja keskisuuria yrityksiä. Esimerkiksi vuonna 2015 järjestettiin kaksi kumppanuustapaamista. Tällä hetkellä ei ole olemassa mitään seurantatoimenpiteitä.

Satakunnan ilmastokumppanuudesta vastaava hanke on Satahima – Kohti hiilineutraalia Satakuntaa. Se on Porin Ympäristöviraston hallinnoima hanke ja sen rahoitus tulee Euroopan aluekehitysrahastosta. Ilmastokumppanuus kehitettiin jo aikaisemmassa hankkeessa nimeltä Ilmastoasiat kunnassa – toimeenpanoa ja yhteistyötä.

Kehitysprosessi toteutettiin vertailututkimuksena ja haastatteluina. Kaikki nykyiset ilmastokumppanit haastateltiin ja vertailututkimus tehtiin muiden suomalaisten ilmastokumppanuuskaupunkien kanssa. Nämä kaupungit olivat Helsinki, Lahti ja Joensuu. Heränneet ideat koskivat esimerkiksi omia internetsivuja ja yhteistyötä korkeakoulujen kanssa.

Kehittämisideat liittyvät pääasiassa suurien yritysmäärien hallitsemiseen, seurantatoimenpiteisiin ja vuosittaisiin kumppanuustapaamisiin. Kaksi tärkeintä palautetta ja ideaa haastatteluista oli, että yritykset haluaisivat seurantatoimenpiteitä, mutta eivät raportointia, ja että vuosittaisten kumppanuustapaamisten pitäisi olla helpommin osallistuttavissa. Tämä tarkoitti, että niiden pitäisi kestää vain pari tuntia ja ne pitäisi järjestää lähialueilla.

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1 INTRODUCTION

Carbon dioxide, CO₂, in the atmosphere is the most important reason for global warming and its amount is increasing all the time (Perlmutter & Rothstein 2010, 63). From year 1960 to the year 2008 the amount of carbon dioxide in the atmosphere has increased from about 316ppm (parts per million) to 385ppm, that is about 20% (Volk 2008, 33-34). In April 2014 the concentration of CO₂ in the atmosphere was greater than 400ppm, more than in the whole human history (Website of CO₂-raportti 2014). In December 2015 the corresponding concentration was 401.62 ppm (Website of NOAA/ESRL 2016).

European Union has set three targets in 2020 climate and energy package. These targets are to cut greenhouse gas emissions 20%, to produce 20% of European Union energy with renewable energy resources and to improve the energy efficiency 20%. Cutting the greenhouse gases 20% is calculated from year 1990 levels. (Website of European Union 2016)

In Pori, Ulvila and Nakkila the climate targets are set in their climate programs. Ulvila and Nakkila have set their targets based on *Porin seutukunnan ILMASTO-OHJELMA* (2008). Pori has its own climate program called *Porin kaupungin ilmasto-ohjelma – Toimenpideohjelma ilmastokuormituksen vähentämiseksi 2012-2020* (2012) (The climate program of the municipality of Pori – action program to decrease the climate load). Ilmasto-ohjelma means climate program.

The emissions in Pori, Ulvila and Nakkila come from traffic, energy consumption, waste management and agriculture. The sink in Pori and Ulvila is the land use, in Nakkila there was none. For example, the energy consumption of Pori produced more than 900 000 CO₂-eqv. (t) of greenhouse gas emissions in year 2009. (Palmgrén 2011, 40)

2 DESCRIPTION OF CURRENT SITUATION

2.1 Background of climate partnership

Climate partnership's history starts from 2011 when the municipalities of Pori, Ulvila and Nakkila were together in a project called *Ilmastokysymysten hallinta kunnassa – Pori, Ulvila ja Nakkila*. The project name means the management of climate issues in a municipality. In this project the municipalities' greenhouse gas emissions and sinks were investigated and climate programs were made. European Regional Development Fund (EAKR) was funding this project. (Website of Pori 2015)

Second project, the beginning of the actual climate partnership, was also funded by EAKR. It was called *Ilmastoasiat kunnassa* – *toimeenpanoa ja* yhteistyötä, in English Climate issues in a municipality – enacting and co-operation. This project lasted from 2012 until 2014. (Website of Pori 2015) In this project it was considered that it is not enough to have the municipalities fighting towards climate change but also the companies should take part somehow. That is how the idea of climate partnership was born. (Aalto, personal communication on 11.01.2016)

The benefits of climate partnership are shown in a tree figure, figure 1. It shows what the company receives from the concept.



Figure 1. Tree of the benefits of climate partnership

2.2 Satahima – Kohti hiilineutraalia Satakuntaa –project

Satahima – Kohti hiilineutraalia Satakuntaa is the name of the project and means towards carbonneutral region of Satakunta. Satakunta is a province.

Satahima is a project funded by EAKR and the Regional Council of Satakunta. Involved are also the municipalities of Pori, Harjavalta, Huittinen, Kankaanpää, Ulvila, Säkylä, Rauma, Kokemäki, Köyliö, Nakkila, Pomarkku and the energy companies Pori Energia Oy, Rauman Energia Oy and Vatajakosken sähkö Oy. The project lasts from 01.01.2015 to 31.12.2017. (Website.of Pori 2015)

The objectives of Satahima are the following. The project finds and gives information about technical solutions concerning energy efficiency and CO2 reduction. It also gives information about business possibilities regarding renewable energy forms. The project focuses on actions taken by the municipalities, their citizens, and small and middle-sized enterprises together with energy companies and schools. It organizes education and events regarding renewable energies, saving of energy and reduction of emissions. It also increases the local operators' collaboration and develops already existing networks. The project works in research and development together with, for example, the Satakunta University of Applied Sciences. The subjects are especially energy-, logistics- and resource efficiency. The project promotes actions that take Satakunta closer to be carbon neutral. (Satahima – kohti hiilineutraalia Satakuntaa Project Plan 2014)

Climate partnership has a logo, figure 2, which is used, for example, in the agreement paper. Also the climate partners can use the logo.



Figure 2. The logos of climate partnership

2.3 Current situation

Now there are nine companies or communities and three municipalities taking part to climate partnership. The companies are mostly small or middle-sized enterprises. The process of getting new climate partners is now such, that the project workers personally contact the companies. Then if the company wants to be a climate partner, the agreement is signed by the CEO of the company and the respective Mayor, for example, in some annual meeting like Ilmastotalkoot. For a municipality to take part there needs to be a climate program made, with climate objectives in it.

Climate partnership of Satakunta has its own internet pages. The project Satahima has a newsletter published twice a year, where also climate partnership related issues are written. At the moment there are no follow-up procedures or reporting regarding the climate partnership. In 2015 there were two events organized: the annual Ilmastotalkoot, and an excursion and a meeting in Honkajoki. Ilmastotalkoot is an annual seminar with a lot of companies and speakers taking part.

2.4 Current climate partners and their commitments

2013-2014 the following companies, communities and municipalities took part to the climate partnership: Pori, Ulvila, Nakkila, Tactic Games Oy, Brand ID Oy, Kuljetusliike Kalevi Huhtala Oy, K-Supermarket Hansa, Cimcorp Oy and Porin evan-kelisluterilainen seurakuntayhtymä. The following ones took part during 2015: LVI-Energiakeskus Aro Oy, Geotalot Oy and Satmatic Oy. (Website of Pori 2015)

The companies taking currently part to the climate partnership are mostly small and medium-sized enterprises. Porin evankelisluterilainen seurakuntayhtymä is a community, a parish. Three municipalities are now taking part and more municipalities have shown their interest on the matter.

The following sections include the measures that the companies, communities and municipalities commit to fulfill in order to reduce the CO₂ emissions and to take actions against the climate change.

2.4.1 Pori

Pori is committed to follow its climate program. Renewable energy resources will be used more in energy production. Energy consumption will be reduced 9% between 2005 and 2016. Emissions produced by vehicles will be greatly reduced by using vehicles that are low in emissions and need a smaller amount of fuel. (Website of Pori 2015)

2.4.2 Ulvila

In the climate program of Ulvila, the municipality will prefer renewable energy resources and make the following of the energy consumption of the buildings more effective. Climate matters will be taken into account in building, traffic and planning of land use. Ulvila will be active in climate matters and work as a opener of conversation. Local traffic will be developed and public transportation will be supported. (Website of Pori 2015)

2.4.3 Nakkila

Nakkila is will follow its climate program also. The municipality will increase the use of renewable energy resources in energy production. The energy consumption will be decreased in the municipality's functions. Nakkila will better the operational precondition of public transportation and bicycle and pedestrian traffic. (Website of Pori 2015)

2.4.4 Tactic Games Oy and Brand ID Oy

The companies will improve on total energy efficiency. They will also decrease the amount of waste and the transportation of waste. As third measure, the companies will prevent environmental accidents by having good plans for state of emergency. (Website of Pori 2015)

2.4.5 Kuljetusliike Kalevi Huhtala Oy

The company will make fuel efficiency better between 2008 and 2016 according to the energy efficiency agreement. It will also take climate matters into account when making new equipment acquisitions. Environmental matters will also be taking into account in the office of the company. Finally the employees will be trained to have understanding on the environmental matters. (Website of Pori 2015)

2.4.6 K-Supermarket Hansa

Energy consumption will be decreased 20% between 2009 and 2015. This will be done by covering the freezers and using new lightning technology. The company will decrease the amount of mixed waste by separation of different waste. The marketing of organic and Fair Trade products will be made more efficient. The last commitment is to participate in two environmental events annually. (Website of Pori 2015)

2.4.7 Cimcorp Oy

Cimcorp Oy will put attention on separation of waste. It will also make the emissions caused by travelling as small as possible. The company will also develop products that are environmentally friendly, energy efficient and have a long life span. (Website of Pori 2015)

2.4.8 Porin evankelisluterilainen seurakuntayhtymä

The community will decrease the amount of waste and better the separation of waste. District heating will be preferred when possible and also ground heat will be utilized. The lightning will be changed for newer technology when possible. Finally electrically operated garden equipment will be more utilized. (Website of Pori 2015)

2.4.9 LVI-Energiakeskus Aro Oy and Geotalot Oy

The companies will give technical support for environmentally friendly energy production solutions. They will educate and inform in energy related matters and they will provide environmentally friendly energy solutions. (Website of Pori 2015)

2.4.10 Satmatic Oy

The systems of the company will be made more energy efficient. Decentralized energy production and solar energy will be promoted and informed among the customers, and the use of renewable energy will be taken forward. In Satakunta the electrical traffic will be promoted by selling and developing the charging points. (Website of Pori 2015)

3 PURPOSE OF THE THESIS

The purpose of this thesis is to bring new information and ideas to the Environmental Office of Pori, and to Satahima, of how the climate partnership agreement could be renewed and improved. This is made by researching other cities' ways of implementing the climate partnership and by interviewing the current climate partners of Satakunta.

One of the most important aspects was to find out how to proceed with climate partnerships if there are much more companies involved than now. It was also important
to find out how to manage to get a lot more companies to be climate partners. At the
moment there are 12 units taking part to the climate partnership. In future the amount
is supposed to be lot higher and that is why the agreement needs to be developed. At
the moment the agreements are handled and made face to face but with a lot of companies that will not be possible.

The development process is also made to make the climate partnership more efficient for companies, for example, the annual meetings' needs are developed.

4 IMPLEMENTATION OF THE DEVELOPMENT PROCESS

Personal interviews and benchmarking were selected to be the methods of implementation for this thesis. Interviews were performed face-to-face since the amount of the interviews was suitable and the belief was that the answers would be more comprehensive that way.

Many other cities have climate partnerships. All of them are realizing it in a different way. This is why benchmarking was selected to be the other method of implementation in order to get new ideas from other cities.

4.1 Interviews

14 companies, communities or municipalities were interviewed for this thesis. These are K-Supermarket Hansa, Tactic Games Oy, Brand ID Oy, Kuljetusliike Kalevi Huhtala Oy, Cimcorp Oy, Porin evankelisluterilainen seurakuntayhtymä, LVI-Energiakeskus Aro Oy, Geotalot Oy, Satmatic Oy, and the municipalities of Pori, Ulvila and Nakkila as well as Harjavalta and Kankaanpää.

Tactic Games Oy and Brand ID Oy were interviewed at the same time, as well as LVI-Energiakeskus Aro Oy and Geotalot Oy. This is why the number of the actual interviews was 12.

K-Supermarket Hansa is a medium-sized supermarket (Viinamäki, personal communication on 08.12.2015). Tactic Games Oy manufactures board games and Brand ID Oy manufactures printed products for branding and marketing (Marttila, personal communication on 09.12.2015). Kuljetusliike Kalevi Huhtala Oy is a transport company (Kamppi, personal communication on 11.12.2015). Cimcorp Oy is an automation company for logistics (Vironen & Nenonen, personal communication on 14.12.2015). Porin evankelisluterilainen seurakuntayhtymä is a federation of parishes in Pori (Lindfors, personal communication on 11.12.2015). LVI-Energiakeskus Aro Oy is a HPAC company and Geotalot Oy is a manufacturer of technical, solar and heat pump solutions for houses (Aro, Personal communication on 16.12.2015). Satmatic Oy is an automation technology company (Puustelli & Heikkilä, personal

communication on 15.12.2015). The municipalities of Pori, Ulvila and Nakkila were the ones to start the climate partnership in Satakunta (Aalto, Hjulgren & Nurminen, personal communication on 17.12.2015) (Pujola, Aalto & Lankiniemi, personal communication on 11.01.2016) (Ylikoski, personal communication on 17.12.2015).

Municipalities of Harjavalta and Kankaanpää were interviewed because they are both very interested in taking part to the climate partnership. (Roininen, personal communication on 15.02.2016) (Luukkainen, personal communication on 10.02.2016)

The following set of questions was used in the interviews of the already existing climate partners.

- 1. Why did your company / community decide to take part in the climate partnership agreement?
- 2. Have the company's / community's commitments been fulfilled? Can you give some examples how?
- 3. What have been the benefits for the company / community of taking part in the climate partnership?
- 4. How often should the commitments in the agreement be checked and updated?
- 5. What kind of follow-up procedures would you like to have in use regarding the climate partnership agreement?
- 6. What kind of collaboration do you wish to have with other climate partners?
- 7. What is your opinion on the annual meetings the Environmental Office has organized for the climate partners?
- 8. How have you communicated or utilized the fact in public that you are taking part in the climate partnership agreement?
- 9. How could the climate partnership agreement be developed?

First the companies' representatives were contacted by email. After setting the date the interviews were performed personally, face to face, at the companies' facilities. Time reserved for one interview was one hour.

4.2 Comparing the agreement with other cities' implementation

The benchmarked cities were Finnish Helsinki, Lahti and Joensuu. The benchmarking was implemented with information from internet pages and from a personal meeting with all these previously mentioned cities present.

5 INTERVIEW ANSWERS

5.1 Reasons to take part

Why did your company, community or municipality decide to take part in the climate partnership agreement?

The three municipalities were the founders of the climate partnership. There was a need for collaboration between the municipalities and the enterprises in them regarding environmental issues. In one of these interviews it was said to be the municipality's obligation to take part and that I is also about the image of the municipality.

Two companies answer was to take part because they were asked to. Three companies already have an environmental management system or they are involved already with environmental issues so that it was easy to take part to climate partnership.

There were also many other reasons to take part, for example, the following ones. Climate partnership fits for green enterprises and it expresses clean values. There was a need inside of the company to increase the profile of environmental matters. The ideology is important. The image of the company will be better. Taking part to the climate partnership is easy and does not require a lot of changes in the company. One company said that the actions in the company would have been made with or without the climate partnership.

Climate partnership prioritizes the commitments written to it in the company. Some other environmental agreement would have been too much work. Climate issues are a duty and an obligation to take part in and one should do whatever possible to work on them. One reason to take part was to be a pioneer and show example to other companies. Also the more efficient the resource management is the more profitable the company will be. Climate partnership for one company is a local action. Environmental issues are so important today that the companies have to deal with them too. According to one answer it is better to take care of the environment than to be an environmental problem when ignoring one's duties.

5.2 Fulfillment and examples of the commitments

Have the company's, community's or municipality's commitments been ful-filled? Can you give some examples how?

All the companies have at least partly fulfilled their commitments. Here is a list of actions that are, for example, taken by the companies:

- Solar panels to the company and information to people about solar energy
- Participation on wind energy projects
- Centralized truck deliveries
- Lectures and events with information about different energy forms
- Doors to refrigeration devices
- Increased LED lightning
- Waste management improvements
- Decreased energy consumption through product development and automatization
- Renovation of the equipment
- Energy saving light pulps
- New technology
- Collaboration with the local energy company
- Turning out the light in the offices
- Saving paper
- Internet meetings in order to decrease travelling
- Feedback of energy
- Increased quality
- More efficient maintenance
- Development of a product's life cycle

Also all of the municipalities have at least partly fulfilled their commitments. Here is a list of actions that are, for example, taken by the municipalities:

- Replacement of old oil heating
- Utilization of ground heat
- LED lightning
- Solar panels and utilization of solar energy

- Energy production with renewable resources
- New vehicles with decreased emissions
- Electric car charging
- City bicycles
- Events like Ilmastotalkoot
- Support to public transport
- Renovation of old buildings
- Measured values for energy consumption

5.3 Benefits

What have been the benefits for the company, community or municipality of taking part in the climate partnership?

Two municipalities answered that the climate partnership makes the image of the municipality better. This helps, for example, in getting new enterprises to the area. Also three companies said that the better image is the best benefit of climate partnership. For example, the utilization of solar energy has improved the image in one case.

Savings can also be a benefit of climate partnership. The savings have come from saving energy and changing the form of heat or lightning used.

Another benefit in two companies has been the improvement of the inner profile of the environmental matters in the company. This can, for example, make changes to happen faster or activate the changes to happen at all.

5.4 Checking and updating of the commitments

How often should the commitments in the agreement be checked and updated?

One company fulfills the commitments on a daily basis, one checks them internally every year and one every two years. One municipality checks the commitments on a regular basis once in two years the others do not check them regularly. One company

wished the checking and the updating of the commitments to be once in a year, but so that the Environmental Office of Pori would have the responsibility of doing it. Two companies on the other hand wish the time lapse to be at least two or three years.

One company answered that they have such a good control over the environmental issues that it would be difficult to find new commitments when updating the agreement. One opinion was that the commitments should already in the beginning to be made as such that there is no need for updating at least in ten years.

5.5 Follow-up procedures

What kind of follow-up procedures would you like to have in use regarding the climate partnership agreement?

One company wished for follow-up procedures but without reporting. Four companies said totally no to reports. It was said, for example, to be more positive for the whole environmental thinking if the workload is small. Only one company wished for an annual report. Two companies already have annual auditing or monthly follow-up measures for environment so they do not need any follow-up procedures regarding the climate partnership agreement.

It was hoped that the Environmental Office of Pori and Satahima had the responsibility in the follow-up procedures. If there is a report, it should be light and easy. One idea of the follow-up procedures was this kind of interview that was made for this thesis.

5.6 Collaboration with other climate partners

What kind of collaboration do you wish to have with other climate partners?

Four gave the answer that the annual meetings are the only way of collaboration needed. Two companies mentioned Ilmastotalkoot to be a good form of collabora-

tion. Another event mentioned in two answers was the event organized in Ulvila, the international day of environment. One company wished for benchmarking and helping one another, another one wished for business activities between the partners.

5.7 Opinions on the annual meetings

What is your opinion on the annual meetings the Environmental Office has organized for the climate partners?

The annual event called Ilmastotalkoot was, according to two companies, very good. There were good speakers, new ideas and a lot of inspiration. 2015 event in Honkajoki instead was too close to Ilmastotalkoot and its theme did not interest all the companies. One operator was satisfied with the presentation in Honkajoki.

According to three companies the annual meetings should last one or two hours. This could be organized, for example, as a lunch or morning coffee. Also three companies told that the annual meetings have been organized too far away. According to these companies the meetings should be kept near, for example, in Pori, Ulvila or Nakkila.

Improvement suggestions were many. There should be some kind of a carrot in the meeting, like good speakers and first-hand information. The speakers can come from the Environmental Office, like the energy counselling, or from outside the organization. All the companies could present their actions in the meetings. Worth visiting places would be sites that are not accessible otherwise. Most important according to two answers is to give relevant, current and real information for the companies. Waste management could be one example of the contents. The meetings could be open also to partners in cooperation and to the companies that are possible future climate partners. One company did not agree with having the annual meetings because of the lack of resources to attend.

5.8 Communication and utilization of climate partnership in public

How have you communicated or utilized the fact in public that you are taking part in the climate partnership agreement?

In three companies the climate partnership agreement can be seen on the wall. Corporate clients have been informed in three companies and at least according to one of these the information was well received. The logos have been used very distinctly. One company has the logo on their internet pages. Two companies have used it in corporate presentations. According to one answer the logos are very good since one can easily see they are all about the environment. In one company the logos are in no use.

One operator was content with the publicity given by the Environmental Office. One operator has its own publication were climate partnership was mentioned.

Some of the municipalities have informed about climate partnership in the local newspapers. Climate partnership has its own internet pages.

5.9 Development ideas

How could the climate partnership agreement be developed?

According to three answers the marketing should be more efficient and there is a need for more publicity. Three answers also said that there should be some kind of measurements for the actions in the company, community or municipality. These measurement results could be used example for marketing purposes. For example, energy consumption could be measured. It should be clear from the beginning that what will be measured and the measuring cannot be like a project of two years; it should last several years. Another thing that should be set from the beginning is the attendance to the annual meeting. According to one company it should be mandatory.

The annual meetings had some improvement suggestions in the interviews. They should be short, for example, two hours. The themes of the meetings are very important. They should somehow touch the company's actions. One possible theme could be quality and it was suggested to be organized by Prizztech. Also energy consumption could be one theme and energy counseling could be given.

One improvement idea came from two interviews. According to them the climate partnership is not for the whole company but more for the environmental and technical units only. Actions were hoped to be made in order to make the climate partnership to be the whole company's matter. In this benchmarking with the other companies involved could be helpful.

The role of the Environmental Office of Pori was mentioned in the interviews several times. According to two answers the Environmental Office should have the responsibility of taking the first step in all the actions concerning the climate partnership. For one it was a little bit unclear, what are all the issues, where the Environmental Office could actually give support and help.

The answers gave several improvement suggestions more. The climate partnership should have carrots to make it more appealing. Carrots would be something that the climate partners would get and the others would not. Parishes and early childhood education should be taking part to climate partnership. The commitments in the climate partnership agreement should be such that do not need to be updated all the time but they should be persevering. Benchmarking with other climate partners should be improved and more companies should take part to climate partnership. Networking should be improved and the subcontractors of the companies could also get involved. In one interview there was a need for an annual newsletter or seminar for the climate partners. One company did not give any development ideas but was satisfied with the current system.

5.10 Possible new climate partner's opinions

Harjavalta and Kankaanpää have expressed to be very interested in becoming new climate partners. Both of the municipalities want to give their enterprises an opportunity to take part to climate partnership and that cannot happen before the municipality has set its climate targets. Kankaanpää is waiting for results of emission data that it needs to take part, so it is not about the municipality that they are still waiting.

The reasons of these two municipalities to take part were many. Climate partnership would be a tangible climate action. It would give an image benefit for both to the municipality and the enterprises. Another motivation is to enhance the already existing co-operation between the municipality and the companies. Also a small municipality needs consulting help and climate partnership would create relations to the Environmental Office.

The municipalities have already taken part to Ilmastotalkoot and the excursion to Honkajoki, and the feedback of these was good. Especially the speakers of Ilmastotalkoot were interesting and the signing event was successful. According to the interviews some kind of follow-up procedures are important so that the commitments will not be forgotten.

6 BENCHMARKING RESULTS

6.1 Helsinki

Helsinki started the climate partnership by making a research with a consulting company. European cities were benchmarked and finally Oslo and Stockholm were taken as a model of climate partnership for Helsinki. Mostly big companies took first part in the climate partnership. In Helsinki the process of getting new partners is well organized. There is a form in the internet pages that a company that is interested can fill. Corporate contacts are made. The companies are invited to join with an invitation. Sometimes the invitation is needed to send twice and if there is still no answer, a call is made to the company. The person to be contacted in the company is always the CEO. After that the contact person can be, for example, the environment specialist of the company. Once a year, a festive signing event is organized where the CEOs and the Mayor of Helsinki sign the climate partnership agreements. Helsinki's goal is to have ten new climate partners in a year. At the moment the amount is 54. (Viinanen, personal communication on 15.01.2016) There are, for example, universities taking part to the climate partnership, as support members, besides the companies. Climate partners have set their commitments and the amount of them is from one to six. (Website of Ilmastokumppanit 2016)

The climate partners have their own newsletter that can be found on their internet pages. The newsletter is published three to four times a year. One aspect that Helsin-ki wants to improve is that they hope the climate partners to actively produce contents to the newsletter in the future. Climate partnership also has a twitter account. There is an annual follow-up procedure, a report on the internet pages. Some key figures and examples of the actions taken to fulfill the commitments are reported. The commitments can be renewed during the reporting but the actual agreement paper stays the same. (Viinanen, personal communication on 15.01.2016) There has been a feedback inquiry where, for example, the following questions or comments were asked: have the events been useful, evaluate the event from one to ten, are there enough of events and evaluate the following communications media from one to ten (Website of Ilmastokumppanit 2016).

There is an annual seminar to the partners. Once also a workshop was organized with the city. The climate partners will also receive help in organizing events between each other. Informal conversations are also been conducted between the Environment Centre and the companies. (Viinanen, personal communication on 15.01.2016)

In Helsinki the motives to take part to the climate partnership are various. Image and networking are some carrots to take part. Others can be, for example, consultation help or personal contacts in the city's organization. (Viinanen, personal communication on 15.01.2016)

6.2 Joensuu

Joensuu has five climate partners (Vikman & Pölönen, personal communication on 15.01.2016). In Joensuu the new partners join the climate partnership through personal contact from the personnel of the Ilmastotori-project. The partners have made four to six commitments. (Website of Joensuu 2016)

6.3 Lahti

Lahti has two climate partners. In Lahti interviews are made to the climate partners at the beginning to establish the information were the companies stand at the moment. The students of Lahti University of Applied Sciences (LAMK) made the other interview. In Lahti the small companies can prove their environmental actions with climate partnership, for example, when offering services to the city. (Rosberg-Airaksinen, personal communication on 15.01.2016)

In Lahti the companies can make two to four commitments. Ladec and LAMK collaborate in the climate partnership. (Website of Lahti 2016) Ladec is Lahden seudun kehitys which means Lahti Region Development.

7 RESULTS, CONCLUSIONS AND DISCUSSION

There is definitely a need for follow-up procedures for the climate partnership in Satakunta. These follow-up procedures could include, for example, an electric form. There could be asked some fairly simple key figures every year. These key figures could be, for example, electricity consumption, heat consumption and water consumption. This form could also include some free space for explanations of how the company has fulfilled its climatic commitments. Another follow-up procedure could be the same kind of feedback inquire that Helsinki has. This would give valuable information of what is the opinion of the climate partners about the current situation.

The annual events must be developed and changed. According to the feedback from the interviews the event *Ilmastotalkoot* has been quite successful. However the other event for climate partners from 2015, the excursion to Honkajoki, was not attended by many of the companies. This should be developed to be shorter, closer and full of relevant information.

Marketing and communications could also be more developed. The logos, for example, are almost in no use in the companies. Some other projects have, for example, stickers to gain publicity and coverage. This is one way the logos could be used. A sticker in the window or door would have a lot of looks. In this field the students of Satakunta University of Applied Sciences could be great help since the students of Business Administration have marketing included in their studies.

A great advancement for the climate partnership in Satakunta would be own internet pages. For example, Helsinki has very good ones that could work as an example. Now climate partnership information is under the pages of Satahima-project on the internet pages of the municipality of Pori. As the idea is to develop the climate partnership in the whole Satakunta area the pages should be independent. The electric follow-up and feedback forms could be on these pages.

In Helsinki there are also universities as climate partners. This model would fit perfectly, for example, for Satakunta University of Applied Sciences, especially now that the university will be moving to new domains. The students of the local university could also help in creating the electric forms as a practical training or a thesis.

It is important to think what will happen when Satahima project ends. It is now the party taking care of the climate partnership concept. All the development procedures that will be executed need to have as a target that they will last beyond the project time.

Comparing of the other cities to Satakunta can be difficult since they are very different but the basic ideas of the actions are transferrable. Interviews made personally give a good platform to discuss about different matters but the companies and their people can have some trust issue for example when they know that the information they give will be mostly public. According to some opinions in the interviews some companies might also have fear towards making a public promise of acting environmentally friendly in case of some kind of environmental accident.

When comparing Satakunta's climate agreement to Helsinki's one it is good to remember that in Helsinki the companies involved are mostly big ones. In Satakunta the climate partnership is mostly meant for small and middle sized enterprises. This affects, for example, to the amount of publicity the concept has.

REFERENCES

Aalto, O. Municipality of Ulvila. Pori. Interview 11.01.2016. Interviewer Eveliina Langenoja

Aalto, O. & Hjulgren, J. & Nurminen, M. 2015. Municipality of Ulvila. Ulvila. Interview 17.12.2015. Interviewer Eveliina Langenoja.

Aro, S. 2015. LVI-Energiakeskus Aro Oy & Geotalot Oy. Nakkila. Interview 16.12.2015. Interviewer Eveliina Langenoja.

Kamppi, P. 2015. Kuljetusliike Kalevi Huhtala Oy. Pori. Interview 11.12.2015. Interviewer Eveliina Langenoja.

Lindfors, K. 2015. Property Manager, Porin evankelisluterilainen seurakuntayhtymä. Pori. Interview 11.12.2015. Interviewer Eveliina Langenoja.

Luukkainen, K. 2016. Kankaanpää. Interview on 10.02.2016. Interviewer Eveliina Langenoja

Marttila, E. 2015. Quality Manager, Tactic Games Oy and Brand ID Oy. Pori. Interview 09.12.2015. Interviewer Eveliina Langenoja.

Palmgrén, A. 2011. Porin, Ulvilan ja Nakkilan alueiden sekä kuntaorganisaatioiden kasvihuonekaasujen päästöt ja nielut vuonna 2009. Referred 02.02.2016. http://www.pori.fi/

Perlmutter, D. & Rothstein, R. 2010. Challenges of Climate Change: Which way now?. Chichester: Wiley-Blackwell. Referred 02.02.2016. http://site.ebrary.com.lillukka.samk.fi/lib/samk/reader.action?docID=10438355&ppg=71

Pujola, A. & Aalto, O. & Lankiniemi, M. 2015. Municipality of Pori. Pori. Interview 11.01.2016. Interviewer Eveliina Langenoja.

Puustelli, S. & Heikkilä, S. 2015. Satmatic Oy. Ulvila. Interview 15.12.2015. Interviewer Eveliina Langenoja

Roininen, R. 2016. Harjavalta. Interview 15.02.2016. Interviewer Eveliina Langenoja

Rosberg-Airaksinen, E. 2016 Municipality of Lahti. Helsinki. Personal communication on 15.01.2016

Satahima – kohti hiilineutraalia Satakuntaa Project Plan. 09.12.2014

Viinamäki, K. 2015. Shopkeeper, K-Supermarket Hansa. Ulvila. Interview 08.12.2015. Interviewer Eveliina Langenoja.

Viinanen, J. 2016. Municipality of Helsinki. Helsinki. Personal communication on 15.01.2016

Vikman, T. & Pölönen U-R. 2016. Municipality of Joensuu. Helsinki. Personal communication on 15.01.2016

Vironen, M. & Nenonen, T. 2015. Cimcorp Oy. Ulvila. Interview 14.12.2015. Interviewer Eveliina Langenoja.

Volk, T. 2008. CO2 Rising: The World's Greatest Environmental Challenge.Cambridge: MIT Press. Referred 02.02.2016. http://site.ebrary.com.lillukka.samk.fi/lib/samk/reader.action?docID=10246371

Website of Ilmastokumppanit. Referred 16.01.2016. http://www.ilmastokumppanit.fi/

Website of CO₂-raportti. Referred 02.02.2016. http://www.co²-raportti.fi/

Website of European Union. Referred 02.02.2016. http://ec.europa.eu/

Website of Joensuu. Referred 16.01.2016. http://www.joensuu.fi/

Website of Lahti. Referred 16.01.2016. http://www.lahti.fi/

Website of NOAA/ESRL. Dlugokencky, E. & Tans, P. Referred 12.02.2016. www.esrl.noaa.gov/gmd/ccgg/trends/

Website of Pori. Referred 27.12.2015. http://www.pori.fi/

Ylikoski, K. 2015. Municipality of Nakkila. Nakkila. Interview 17.12.2015. Interviewer Eveliina Langenoja.