Olofström

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1. REGIONAL CONCEPT

The concept for Olofström includes two options, both aiming to increase the environmental efficiency of transporting goods. The first aim, to build a truck parking area (TPA), was postponed due to several regional/local reasons related to stakeholders, land owners, spatial planning etc. The second option (in italic), aiming to replace cars by cargo bikes, was elaborated after the TPA was postponed. Therefore, we include both regional concepts. The details related to work on the TPA and the findings from that process will be separately presented in a report that addresses the regional protagonists.

BACKGROUND

There are a lot of trucks arriving at and departing from Olofström each day. Because of its business structure, there is a lot of freight transportation in the municipality and its surroundings. ONAB has identified the large companies' transports as the main reason for the heavy flow of goods and their role in this project is to coordinate the company activities towards creating opportunities for collaboration in the area of local/regional freight transportation (last-mile or short-distance transportations). The industries in the municipality will soon face an increase in production volumes and ONAB wants to address the importance of collaboration to avoid sub-optimizations (leading to unnecessary transports) within the geographical boarders of Olofström municipality.

Both, employees and inhabitants of Olofström are very dependent on cars. The number of kilometers driven per person in the municipality is increasing and that trend needs to be changed in order to reach the climate goals on national and global level. There are a lot of travels that involves one moving person only, but there are also travels of logistical character performed by persons in their private/company car.

REGIONAL GOALS AND LONG TERM FUTURE VISION IN THE LCL PROJECT

The goal will be to find positive effects from consolidation/co-packing and thereby to reduce CO2 emissions in the municipality and to enhance the competitiveness among regional companies. To be able to do this in an efficient and innovative manner the exchange of experience with South Baltic partners is crucial. Inhabitants hope to experience less littering and disturbance from heavy trucks.

The goal will be to find positive effects from replacing fossil fuel-driven cars by electrical cargo bikes and, thus, to reduce CO2 emissions in the municipality. To be able to do this in an efficient and innovative manner the exchange of experience with South Baltic partners would be crucial. Inhabitants hope to experience less noise and air pollution as well as more safety and increased health.

COMMON CHALLENGES

Challenge 1: Economy

The global economy significantly impacts on the Olofström area due to an unique local business structure that is heavily dependent on one large global car manufacturer. A foreseen increasing production needs to be managed in order to retain the attractive city and an efficient industry.

Solutions that could be implemented to cope with an increased production volume: 1) Change of working times related to 24-hour-deliveries; 2) Night deliveries; 3) Distribution central (DC), i.e. coordinating and consolidating deliveries outside the city center; 4) Inter-company-collaboration; 5) Dedicated truck-parking-area (TPA) giving all trucks a place where they can wait for new assignments after a delivery.

In this region it is important to have a car to be flexible and available, both for working and for private and social activities. There is a resistance and anxiety that a reduction of transports and travels cannot go hand in hand with to local and regional development and economic growth.

Challenge 2: Demographic change

The municipality is slowly growing and, however, there is a general trend towards urbanization in Sweden. It is important that the area stays attractive in order to maintain the competence to supply the industry. To increase safety, attractiveness etc. it is important that the traffic does not pass and/or occupy the city and the main city roads. An outside-city DC or TPA could solve this problem.

Solutions to maintain the attractiveness of the city could be a replacement of cars by cargo bikes, offering consolidated home deliveries or vehicle-sharing systems.

Challenge 3: Climate change

The city center is not suffering from a high degree of air pollution due to the traffic. The decrease achieved via LCL-measures will not be visual for the inhabitants in the city. Initiating a trend towards prohibition of diesel vehicles could be a future measure.The solutions that are relevant in this case are: 1) DC; 2) collaborations in order to optimize the transports; 3) TPA with electricity; 4) e lectrical vehicles that decrease the local emissions; 5) an establishment of nvironmental zones.

Challenge 4: Ecological awareness

The global business can significantly impact on the local and global awareness. The local inhabitants and visitors of this area are mainly experiencing some transport related problems that are not specifically elaborated in the common vision. These are traffic safety, noise, congestion, attractiveness of the city and environmental impact from drivers.

The awareness and the ambitions are high as Sweden aims to be one of the first fossil free welfare countries. There are a lot of measures being implemented and one of the toughest challenge is the behavioural change. The willingness to change the individual lifestyles is still low and there are large differences among the inhabitants.

Challenge 5: Costs/budgets

The discussion about an increase of the transportation costs can lead to better incentives for replacing the car or starting collaborations or sharings between actors. The collaboration can for example be a physical area where goods and/or transports are coordinated and/or consolidated i.e. DC, TPA or vehicle-sharing systems.

Challenge 6: New drivers

Autonomous trucks are one potential area of development. The car factory in Olofström could be a suitable place to start such an innovative initiative.

The following new drivers could influence the choice of transport: subsidies for electrical bikes, sustainable development and Agenda 2030, gender equality and diversity and trend towards sharing economy.

Challenge 7: Digitalization

As described in the common vision, the use of smartphones is an opportunity but also a challenge. The possibilities are enormous, but the data mining must be efficient to add value to the transport processes. Opportunities for Olofström are 1) to coordinate information between companies since they are located close to the city and close to each other; 2) to physically gather all trucks in one spot (TPA or DC) and to provide information and service there; 3) *to facilitate sharing systems and a higher utilization of vehicles.*

Challenge 8: Legislations and regulations

The following possibilities for regulations and legislation were identified for Olofström: 1) to allow heavier trucks as this can reduce the number of trucks and make the transportations more efficient; 2) to investigate an implementation of environmental zones to see if there are any regulative measures needed. There can also be a synergy between environmental zones and implementation of a TPA or DC.

To promote a use of cargo instead of private cars measures, for instance, related to parking policies in the city or increased cost of ownership for cars can be taken.

SUMMARY AND PRIORITIZATION OF REGIONAL CHALLENGES

Summary of option 1*:*

It is important for the project team to describe a solution which can be further developed after the end of the project. The challenges that are prioritized in this region are the economy and the ecological awareness, because the most important stakeholders in this region are the inhabitants/municipality suffering from "social" problems and the strong industrial culture and business structure. Therefore the measure that is chosen for further investigation is the dedicated TPA. It will clearly decrease the number of trucks in the city center and it will also give the companies and municipality an area that can be developed according to future needs.

Prioritization and summary of option 2:

The challenges for different target groups will differ and the incentives to use a cargo bike must be adapted. It is important for the cargo bike solution to be attractive and to serve as good example in the field. The challenge to be further investigated is how to maximise the utility of the cargobikes.

2. REGIONAL ACTION PLAN

THE MEASURE

Option 1: The TPA is a first step. From this area, the DC, the digital solutions, etc. can be developed. The limited budget available in the project will start the implementation of the TPA in order to create preconditions for the regional actors to continue the LCL solutions implementation. At this stage, the project participants, together with local and regional stakeholders, have investigated the conditions for a TPA run by a company/cluster of companies. A lot of work has been done and unfortunately, in October 2017, the decision of the private companies changed. Thus, the project team changed direction and approached the municipality. The political organization gave their approval to continue the work in January 2018. Unfortunately the new investigation with new preconditions showed that there are no suitable locations that fit into the LCL time schedule. The municipality still has the intention to establish a TPA. After discussions in the municipality and together with LCL partners a new solutions was presented and accepted by the municipality of Olofström and a new stakeholder group was formed.

Option 2: *The public housing company sees the potential to increase the environmental efficiency of their internal transports, today only performed by cars. Cargo bikes are an attractive option the employees will benefit from - and in the long term also the tenants. Cargo bike solutions will be implemented in a number of areas in Olofström. Those will be utilized by service staff during the working hours and by the tenants when available. Furthermore, the volunteers who have already started to work in some of those areas will be able to use the bikes for their tasks.*

The municipal IT department also sees that there is a potential to replace a lot of transports of smaller equipment to public entities around the city. They will be a forerunner for other municipal departments that can follow their good practice and hopefully also inspire small private companies.

STAKEHOLDERS

The predefined and initial stakeholder group was the company cluster "Techtank". The idea was driven by the project partner ONAB and supported by the Techtank cluster. ESS has supported ONAB with knowledge from former projects and also provided guidance in accordance with the application form. NetPort Science Park has contributed with knowledge and expertise related to digitalization and with ideas for the operating agreement. The municipality has supported the stakeholder group.

The main stakeholders for option 2 are:

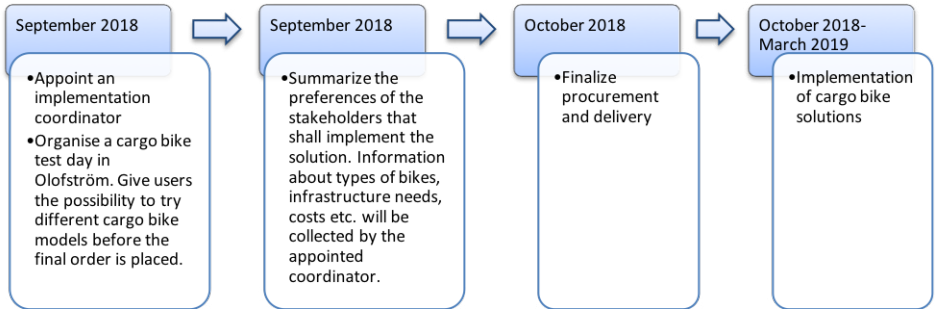
- Olofströmshus (public housing company)
  - o Service personel
  - o Volunteers working in the housing area
  - o Tenants
- IT department Municipality of Olofström

CONDITIONS

The new solution will require cargo bikes and surrounding infrastructure, for example parking spaces for bikes, lighting, possibilities to lock items ("cargo boxes"), a booking system, charging etc.

TIME PLAN

The new stakeholder group had its first meeting in May 2018. Therefore, the time-schedule is still under development.



We realized that the evalutation period is very short and that the time of the year might affect the utilization rates of the bikes.

After the project, the implemented cargo bike solutions will serve as an inspiration to other organisations and companies in the region. The main stakeholder is very active in social and environmental projects and will continue to develop the solutions and promote their progress. ESS will support this dissemination and is, via other projects, able to arrange, for example, study visits.

FINANCING

Olofströmshus and the Municipality of Olofström will contribute to the financing of the cargo bikes.

There is a possibility that a small charge for the tenants that are interested in using/sharing a cargo bike will be available in the future.

3. PILOT MEASURE

DOCUMENTATION

By participating in the LCL project, Olofströmshus intended, as far as possible with the available capacities, to make use of the opportunities and benefits of using cargo bikes instead of a company cars at work. Since we did not have any own related experiences, we searched for other companies from the same sector that had already taken steps towards cargo bikes use. We talked to other housing companies that currently offer this service to their employees, to benefit from their experiences.

Our investigations showed that those housing hosts who used cargo bikes were experienced as more present and that this, in turn, created a higher feeling of security among the people living in this residential area. It became clear that the employees were not only much more visible on their bikes, but also saved a lot of time when not driving around in other traffics. Another benefit was that some residential areas that are difficult to reach by car became more accessible now: with a cargo bike, one could easily make all the way to the gates. The staff has experienced this getting out and cycling in the fresh air as healthy and positive. They have had a positive feeling when being able to work without placing a lot of exhaust gas in the residential area. They have started to plan their work in a completely different way and experienced that they are able to do their job as good as previously done by car, in some cases even better.

We were really pleased about these survey results when summing it up and started, as the next step, to plan a purchase of cargo bikes. As nobody in the company had related experiences, we had to collect information via desk searches and contacting various potential suppliers. Furthermore, we took part in a networking event on cargo bicycles which was organized by the Energy Agency for Southeast Sweden in Emmaboda/ Sweden.

Out of this preparatory work, the decision was taken to buy cargo bikes offered by two different brands. This was supposed to allow a comparative analysis and evaluation of different products. Accordingly, the brands Babboe and Christiania Bikes were selected here. Both offered the same type of bike, but with slightly different design details and features. We placed the bikes in the residential area selected for this pilot project, asking all staff members to test them.

When we first started discussing cargo bikes, many team members were quite skeptical. Due to this, an easy approach was chosen: to involve only those who wanted to try at their own pace. We did not want to force anyone to ride, nor did we want to exclude anyone from driving. We simply wanted the bikes to be a complement and that the staff themselves could discover the benefits. It did not take long before the bicycles began to be used frequently. It was even so that many preferred them to cars.

The advantages of the cargo bikes have primarily been noted by the customer hosts, especially during fine weather periods where driving in a warm car is uncomfortable. The bikes offer plenty of space for tools and spare parts that are needed to carry out the daily tasks. The project has only been tested for some months, but already now an increasing interest among the staff members was to be observed. Staff from all of our residential areas have started to contact us and wants to use a cargo bike on trial. The response among our tenants has also been very positive. They, for example, think that the customer hosts are much more present and visible when arriving by bike.

RESULTS

Ecological analysis

Olofströmshus's own vehicle fleet is dominated by biogas cars and electric cars, but as the customer hosts precede with good example, more tenants are motivated to go by bicycle instead. Due to this, the number of short-distance car rides is reduced for both customer hosts, tenants, young people and employees at the local Youth centre. Olofström is a small town with short distances, so that an electrically powered cargo bike can replace the car on many trips.

Economic analysis

The project is implemented by the municipal real estate company Olofströmshus, which primarily considers this as an important part of its environmental work - but at the same time can count on economic benefits. Reducing the number of car transports reduces fuel consumption and allows reducing the number of cars in the company. A more flexible work provides healthier employees, thus, reducing the number of sick days for the staff and related costs for the employer. The well-being of the tenants results into less damage and increased care for their own home.

Ekerydsplan is located near the center. With approximately 40% of Olofströmshus's total apartment holdings, it is the company's largest residential area. A project called "Eco-Living" with focus on urban cultivation was started here in 2014. This project has been developed and many tenants grow vegetables now, which also increased the cooperation in the area. Furthermore, the newly started EU project "Project for Social and Ecological Harmony" with focus on creating socially and ecologically sustainable living environments in order to create good life quality is in progress at Ekerydsplan. The project aims at offering more meeting places and areas towards strengthening the Ekerydsplan communiy.

Benefits for the city

In addition to reduced climate stress, there are also gains to be made in several other areas. The city will benefit from a reduction of car rides regarding the following:

- The air pollution decreases: The annual traffic statistics of central Olofström show that more than 10,000 vehicles drive through the city center daily - a great potential for improvement.
- A cycle trip is good for health. This applies for both, customer hosts who use the bicycle in their daily work and tenants who choose a bicycle to go to the

food store. And an improved public health is beneficial for the individual and the society as a whole.

- Customer hosts riding a bicycle come closer to the tenants than car-borne customer hosts – green transportation enables personal meetings.
- A bicycle is inexpensive to operate and saves money for the person who does not use a car instead.
- The traffic safety in the area increases where more people choose the bike and car traffic decreases.
- Fewer cars reduce the space needed for parking lots in the area.
- A cyclist does not need to look for parking space.
- A bicycle is smooth in city traffic.

OUTLOOK

The goal in the future is to implement the working method with cargo bicycles in all areas where there is a need and opportunity for use. A sub-goal is to create a good co-operation with the youth center Växtverket, where can use cargo bicycles can be used for the institution's operations.

Furthermore, the company intends to build a rental business where tenants can test cargo bikes. We are in the process of deciding on various alternatives of enabling this in a resource-efficient way. This will be one of the future challenges. We also want to review the storage possibilities for cargo bikes and would like to offer secure storage facilities to the tenants.

Olofströmshus aims at being fossil-free until 2030, also with the help of other means of transport than just cars. We want to take the environment into consideration, but at the same time we wish to be effective and to create a proximity to the customer in our areas. We can succeed in this by presenting various attractive alternatives to cars, letting the staff members themselves participate in their evaluation and come up with suggestions for improvement.