STUDY VISIT
‘BEST PRACTICE IN LOW EMISSION AND GREEN TRANSPORT’

Karlskrona, Sweden

9 March 2017

SUMMARY REPORT

/ draft as of 18.04.2017/

TABLE OF CONTENTS

INTRODUCTION

Many of Europe's urban areas are facing a series of environmental challenges resulting mainly in congestion and air pollution. Sustainable urban mobility can be the starting point for more environment friendly measures, also in combination with ICT- based solutions.

In that regard, the TRAM project fosters the development of a competitive, resource-efficient and low carbon-oriented European transport system by improving the efficacy of regional and local policies on urban mobility in five geographical areas of the European Union. The strengthened urban dimension of regional and local policymaking is expected to facilitate the shift to low carbon economy – in line with the guidelines set out in the EU Transport White Paper, the Urban Agenda and the EU 2020 strategy

One of the instruments for the interregional learning process, alongside the interregional thematic workshops (ITWs), is the study visits. They focus on the pre-selected cases of good practice within the three thematic areas of sustainable urban mobility: transport policies; ITS for urban areas; and low emission and green transport. The purpose of the study visits is to demonstrate the issue addressed and the solutions offered. The good practiced collected are then going to be evaluated by the ITRE panel (Interregional Team of Regional Experts).

The process behind the study visits consists of a preparation phase - to arrange for an in-depth insight in the selected good practice cases, and a documentation and monitoring phase to ensure the best learning effects. The selected good practice cases are assessed by their policy/work routine effectiveness for the local stakeholders, and by the adaptation/replication potential in the development context of the other project partners.

Region Blekinge held the first in the series of study visits. Arranged on 9th of March 2017 for the representatives of the other project partners as well as their stakeholders and ITRE experts, the full-day event featured on-the-spot presentation of the three good practice cases in their respective geographical locations in Blekinge, each followed by questions and answers. Because of the implementation delays, the selection of the cases was not pre-determined by the ITRE panel but suggested by the organisers. The final session of the day was dedicated to wrapping up the reflections of the study visit participants and to catch up first ideas on the organisational and content-related qualities of the tested study visit instrument in the interregional learning process.

The full evaluation of the instrument was made through the questionnaire forms defined by the ITRE panel and filled in by the project partners.

Conclusions from the study visits in Blekinge will be used in designing and conducting the follow-up study visit events in the other partner locations, in order to optimise their value added for the interregional learning process. One specific idea that emerged after the study visit was to make changes to the study visit questionnaire and link it better to the content of the good practice template.

AGENDA OF THE STUDY VISIT DAY

Place	**Karlskrona – Mörrum – Karlshamn - Karlskrona**
Date	**9 March 2017**

Time	Item
8:15	Welcome & introduction by Region Blekinge Setting the agenda (measures to be presented, main issues, connection to TRAM, expected outcomes of the day, schedule of the day)
8:30	Bus departure from the hotel
9:30	Arrival to Mörrum
	Presentation of GP no. 1: Mörrum biogas plant, Mr Robert Lundgren
	Q&A to the presenter, Discussion with participants, Input and feedback by all visiting partners
11:00	Departure from Mörrum
11:25	Arrival to Karlshamn
	Presentation of GP no. 2: NetPort Energy Cluster, Ms Katarina Hansell
	Q&A to the presenter, Discussion with participants, Input and feedback by all visiting partners
11:50	Networking light lunch
12:30	Departure from Karlshamn
13:30	Arrival to Karlskrona (Blekinge Institute of Technology)
	Presentation of GP no. 3: Methods for Sustainable Transformation of Energy and Transport, Dr Henrik Ny
	Q&A to the presenter, Discussion with participants, Input and Feedback by all visiting partners
15:15	Plenary: summary of the discussions

15:30	End of day, bus transfer to the hotel

OVERVIEW OF THE VISITED GOOD PRACTICE CASES

1. Biogas plant, Västblekinge Miljö AB, Mörrum

Västblekinge Miljö AB (http://vmab.se) is a municipal-owned company responsible for the coordination of waste management in the western part of Blekinge (municipalities of Sölversborg, Olofström and Karlshamn). It is responsible for a biological treatment of household food waste in a biogas plant located in the small town of Mörrum, in the western part of Blekinge. The plant opened in 2013 and is the first in Scandinavia utilising the dry fermentation method. Through the investment worth 42 million SEK (ca 4,5 million euros) the plant has a capacity of converting 20 thousand tonnes of food waste per year to 2.4 million cubic meters of biogas for vehicles, which is equivalent to 2.6 million litres of petrol. The dry fermentation process takes 27 days.

The gas powers the vehicles of the waste management company itself, but is also distributed to other companies and private individuals through several stations in the region.

The food waste delivery area cover the western part of Blekinge and north-eastern stretches of the Skåne (Scania) region. It is organised based on the so called

regional waste processing plan which sets the directions for the sorting of waste fractions, the biological treatment and the recycling of materials. The plan is then translated into sorting guidance for residents.

Replicability potential. Feedback from the participants

The practice was found a very interesting or even an extremely important experience of recycling food waste with the whole treatment process demonstrated to the participants.

In the participants' view, the proof of success (in terms of sustainable and durable solution) has already been demonstrated as the plant has been continuously extending and has signed a long-term contract with a large energy company for selling the biogas. Additional results could be the utilisation of the resulting waste as a fertilizer, reducing the amount of landfill after the process is completed or the initiation of a large-scale food waste combat campaign. Regarding the difficulties, these have been mainly technical and related to rejected material and foreign objects in the waste. The role of other stakeholders can be mainly related to information activities and financial support for developing new technologies.

Still, some of the questionnaire respondents believed it laid outside the very transport sphere so it was hard to understand the replicability, the key factors, and the lessons learned to be used in the other project partner context. In one of the responses, the practice was deemed to have a low impact on the policy instrument to be affected by the project in the Marche region as the applied typology of this practice is already in use.

The transferability of the presented good practice to the other partner locations seems to have a promising potential if aligned to the local characteristics. It was emphasised that not subsidies or tax exemptions are needed to make this operation profitable. However, the success of selective waste collection routine is much dependant on high environmental awareness, disciplined attitude and commitment among the population, companies and authorities, which made it easy to develop and implement such a solution in Sweden. The participants noted the outstandingly high ratio of customers (about 90% out of roughly 30,000 households in the service area) collecting the household waste in a sorting manner. In other words, the practice requires infrastructure investment and a change of mindset.

Of particular interest for the participants were the two specific components of the good practice: (1) incentives for the citizens; (2) the use of biogas as fuel for vehicles.

For the former, it was appreciated that the presented good practice worked out financial incentives for citizens to increase the effectiveness of selective waste collection both in terms of awareness raising and sensitisation on environmental issues. Along that, the 'non-selective clients' pay 50% higher service fee for waste collection that the 'selective' ones. Introducing a similar pricing scheme in the other partner locations is believed to significantly increase the ratio of clients going for the selective way. Another fiscal incentive is that most of the households recycle the organic waste in free paper bags.

In that regard, the participants would like to get more information on how (and what kind of) communication actions were carried out towards residents that resulted this high ratio of selective collection.

For the latter, in several other partner locations (e.g. Miskolc) the introduction of the practice can be facilitated by the investment made in new CNG buses operated by the local public transportation provider.

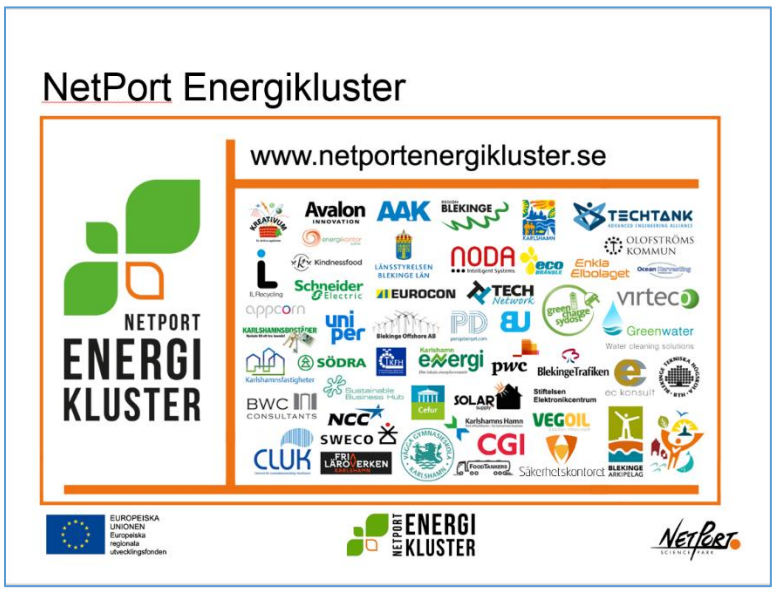
Key success factors identified:

- Customer motivation (environmental responsibility) as a social underlay for the introduced solution
- Fiscal incentives for the sorting routines and collaborative approach (information and guidance coming ahead of fines for ill-sorting)
- Community-tailored business plan (e.g. provision of bins and bags)
- Competitive costs of biogas production (economy of scale with 30k households and restaurants involved)

2. Triple helix cooperation for sustainable energy, NetPort Energy Cluster, Karlshamn

The purpose of the energy cluster (http://www.netport.se/en/projects/netport-energikluster-2/), established at the NetPort Science Park in Karlshamn, is to create an innovative working environment where ideas will be developed into sustainable products and services. The cluster deals with manifold issues, including: start-up energy companies built upon research, competitive solutions for energy, an attractive business environment and education in the region, reduction of primary energy use, and transition to systemic approach.

In terms of organisation, the cluster forms a triple-helix network composed of 29 members and 6 further partner organisations representing the energy business companies, research institutions and local/regional administration from Blekinge. Its collaboration model implies the combination of competence, networking and business intelligence for innovation in the energy field towards the ecological, economic and social dimension of sustainability.



Replicability potential. Feedback from the participants

Netport Science Park was found an interesting experience of a science cluster which involves companies, academy and public administration. Although not directly linked to the thematic areas of the TRAM project (loose connection to the mobility issues) and not in itself being innovative (the importance of cluster cooperation is already recognised in the regional policies), the presentation gave valuable insight of the triple-helix cooperation model developed in the cluster.

As presented, the cluster cooperation involves the Blekinge public authorities at the regional and local level (regional governmental and self-governmental administration, selected municipalities and their dedicated networks, e.g. Energikontor Sydost), research organisations (e.g. Blekinge Institute of Technology), business-orientated networks (e.g. Blekinge Sustainable Business Hub) and commercial companies (energy producers, distributors and users, seaport authority).

Of specific replication interest was the financing scheme for the activities and the cooperation eagerness of the SMEs. It was underlined that the success of the initiative was to mobilise the private sector for working together in projects with a foreseen impact of better utilising the existent energy resources. This has led to the emergence of clustering in related domains, like transport and ITC. Here, the high motivation of the stakeholders was appreciated and their will to embrace the cooperation idea.

Also, the approach to mobilise all relevant stakeholders on such a large scale and to give an impulse to authorities was considered a good practice, with parts of the cooperation process to be replicated in all partner regions.

Key success factors identified:

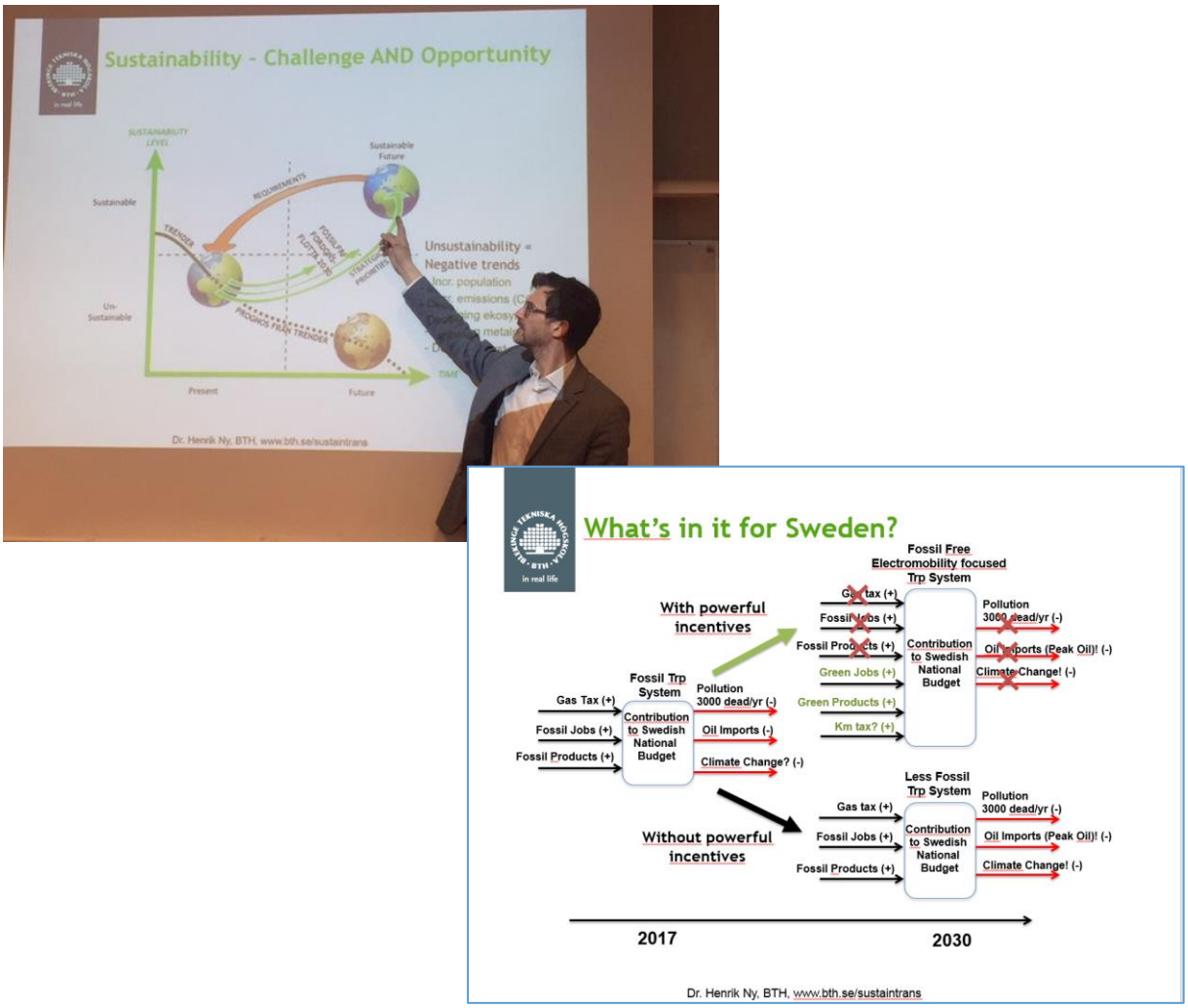
- good, close cooperation between the partners, built on mutual trust,
- proven financial sustainability of the organisation, with risk shared between the public and the private partners,
- capacity building transformed into skill development,
- mobilisation of stakeholders and community, building political legitimacy and networks
- efficient management (cluster personnel paid from the projects) and openness to new partners

3. Methods for Sustainable Transformation of Energy and Transport, Blekinge Institute of Technology, Karlskrona

A dedicated department for Strategic Sustainable Development at the Blekinge Institute of Technology (www.bth.se/sustaintrans) focuses on accelerated societal transition to sustainable

transport and energy systems. Their research stems from addressing sustainability as both the challenge and the opportunity, as the latter can be interpreted in terms of increasing revenues, productivity, credibility ad brand, while the costs for resources and waste, taxes, insurance rates could go downwards.

The team has developed a strategic planning process towards the sustainable (fossil-free) future that combines the sequenced steps of: visioning for sustainable energy and transport systems, appraisal of the current reality (baseline), backcasting for potential solutions, and creating scenarios and road maps through stakeholder dialogue and decision-making at various tiers (national, regional, local, company). The process was initiated and tested in a pilot project (Green Charge) to steer the transformation of the whole value chain in southern Sweden's automobile industry towards electric vehicles.



Replicability potential. Feedback from the participants

The participants believed the Blekinge Institute of Technology (BTH) represents a remarkably interesting approach in terms of governance and capability to activate and mobilise local stakeholders towards low-carbon policies - starting off just with just a personal contact with one interested market company and ending up in involving more than 20 municipalities and some investors. In the process, BTH has been perceived by the commercial companies a trustworthy partner in developing their business models.

Its good practice was reliant on setting up a degree programme about the sustainability, with a clear vision and evident outcomes of the past research and demonstration activities.

The main result of the initiative was perceived in preparing the new society generation for more conscious energy utilisation habits through bottom-up action. The success of the initiative was seen in a much higher adoption rate of electric vehicles. As emphasised, at the end of the campaign, the most sceptical of local authorities purchased the biggest number of electric vehicles, which underlines the effectiveness of the chosen communication channels (dialogue with national parliament members, regional political boards, companies and the general public).

The practice presented was a relevant example of external dissemination thanks to the very effective capability to build political legitimacy around a low-carbon projects. The involvement of relevant socio-political figures and other stakeholders seemed to be the key success factors that allowed the presented low-carbon project to be scaled from a very local need to a regional context.

Still, some voices were raised that the presentation could have included more details on the effective actions carried out and the impacts of those activities.

Key success factors identified:

- good, close cooperation between the partners, built on mutual trust,
- institutional backup (committed staff employed at the theme-dedicated department at the local technical university),
- mobilisation of stakeholders and community, building political legitimacy and networks,
- stakeholder involvement (awareness of win-win situation) in implementing and financing of the activities.

THE PARTNERS' PERCEPTION OF THE STUDY TRIP. LESSONS LEARNED

The questionnaire forms distributed among the study trip participants were helpful in assessing the leverage quality of the presentations and formulate conclusions for the future study trips in the other project partners' locations.

The partners highly ranked the study trip arrangement, with the very good to excellent grades prevaling. They agreed it was well organised and that it matched the aims and expectations set, with the presentations featuring the issues related to the project objective. However, due to lack of prior guidance to the lecturers/presenters, the lessons learnt and the key success factors were not part of

the presentations, and the feeling was that there was too few information to detect this information from the visit.

The overall feeling was that high level of social capital and capability to build relationship between stakeholders were the key elements to explain the presented practices. Besides such feeling, it was unclear how the presented practices affected local promoters and/or institutions in terms of new practices, organisations, routines and aims.

It is recommended that presentations at the next series of study visits shall make a **clear comparison** between ex-ante and ex-post situations - to allow participants to judge relevant changes and learning effects.

In order to allow participants to better judge future study visits, it is important that participants received **detailed information** about the practice. Some of such information may be sent through email in advance, to accompany the filled-in good practice template, while the rest (e.g. presentation, reports etc.) shall be presented, in detail, by the presenter during and/or after the study visit. The latter needs to be guided as to what kind of **focus** the presentation is expected to have. To illustrate:

- How was the local promoter/hosting partner affected? Which kind of changes occurred? Please mention any changes in practices, organisational aspects and policy awareness, aims and means
- Could you identify the key success factors which can explain the successful replicability to other contexts?

To certain extent, the guiding questions leading the presenters are already included in the good practice template and may be further polished in result of evaluation work after each study visit.

STUDY TRIP EVALUATION QUESTIONNAIRE

YOUR NAME:	
YOUR ORGANIZATION:	
STUDY VISIT NAME:	
LOCATION AND DATE:	

01. OVERALL EVALUATION

1. To what extent do you agree with these statements? (Rate from 5 (excellent) to 1 (very poor)) + Comments

- ☐ The aims set out for this study visit were reached.
- ☐ The study visit was well organized.
- ☐ The organized activities reached the expectations.
- ☐ The analysed outcomes/results are potentially able to be transferred to other organizations.

Please, briefly explain your evaluation

02. RESULTS AND OUTCOME

- What are the expected outcomes/impacts? Where there any unexpected outcomes/impacts?
- What are the evidence of success of the experience?
- Which possible additional result indicators can be underlined?
- What were the difficulties encountered in the effective implementation?
- What was the importance and the role of other relevant stakeholders?
- What internal/external dissemination was/is planned by the local promoter/hosting partner to create a multiplier effect?

Please, briefly report your answers and comments

03. LEARNT LESSONS AND KEY SUCCESS FACTORS

- How was the local promoter/hosting partner affected? Which kind of changes occurred? Please mention any changes in practices, organizational aspects and policy awareness, aims and means
- Could you identify the key success factors which can explain the successful replicability to other contexts?

Please, briefly report your answers and comments

LIST OF PARTICIPANTS

Organisation	Name	Function/role
Marche Region, Italy	Raffaella Triponsi	Project Manager/coordinator
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University of Camerino, Italy	Renato De Leone	Stakeholder
Agencia de Andalucía, Spain	Isabel Fiestas	Project Manager/Coordinator
Agencia de Andalucía, Spain	Paola San Emeterio	Financial Manager
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Region Blekinge, Sweden	Wiktor Szydarowski	Project Manager/Coordinator
Region Blekinge, Sweden	Svetlana Sukhova	Administrator& communication manager
Blekinge Institute of Technology, Sweden	Henrik Ny	ITRE Expert
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Municipality of Miskolc, Hungary	Árpád Horánszky	Steering Committee member
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