SYMBI
Interreg Europe

Report of the 3rd study visit "Sharing practices on waste to energy systems"

Regional Council of Häme &

HAMK Häme University of Applied Sciences

Table of Contents

1 Introduction

SYMBI (Industrial Symbiosis for Regional Sustainable Growth and a Resource Efficient Circular Economy) project is an international EU project focused on improving industrial symbiosis for a resource efficient economy. The aim of the project is to contribute to improve the implementation of regional development policies and programmes related to the promotion and dissemination of industrial symbiosis and circular economy.

This document is the summary report of SYMBI project Activity A3.4, an interregional study visit aiming to share practices among project partners and stakeholders on waste to energy systems. The purpose of this document is to report the main aspects of the study visit and summarize the lessons learned during the visit. Short video of the study visit will be published later.

The report is structured as follows: section 2 outlines shortly the visit agenda and locations; sections 3-7 present shortly the different sites and events visited. List of references is section 8, agenda of the visit and the participant lists are annexes.

2 Agenda, dates and locations

The interregional study visit on sharing practices on waste to energy systems was held in Finland, Häme-Region 18th – 20th September 2018. The hosting organisations of the event were Häme University of Applied Sciences and the Regional Council of Häme. The working language of the event was English. The agenda of the event can be found in Annex 1. The venues were site visits to Circular Economy Village of Fortum Ltd., Riihimäki and to the Eco Industrial Park and Forssa Symbiosis in the City of Forssa. The companies of the site visits were presented during the visits. Other venues of the visit were three campuses of Häme University of Applied Sciences; Hämeenlinna, Forssa and Mustiala. In the Hämeenlinna campus, the participants heard about the Circular economy and waste to energy projects at HAMK. The participants also visited the Construction Engineering Laboratory of HAMK Hämeenlinna and learnt about the near zero energy solutions of the laboratory. In the Forssa campus as part of the agenda the participants joined the circular economy startup event FRUSH. On the last day

of the visit, steering group meeting was held and a parallel session for stakeholders to network and have negotiations with Finnish companies was organized.

3 Study visit to Circular Economy Park of Fortum Ltd. Riihimäki

Fortum Oyj is a Finnish energy company operating in the Nordic and Baltic Countries, Poland, Russia and India. The company's business includes electricity and heat production and sales, power plant utilization and maintenance services, and other energy-related services. The company's main products are electricity, heat and steam. In addition, Fortum provides recycling and waste services such as environmental expert services and hazardous waste handling. 96 % of the company's electricity production across EU is carbon emission free. (Fortum 1, N.d.)

In June 2016, Fortum set up a Circular Economy Village in Riihimäki, Finland. The Village is a refinery complex developed by Ekokem, which Fortum acquired in 2016. In the village, municipal waste is processed through the Eco Refinery - an automated sorting plant, the Plastic Refinery - the first in Finland to produce recycled plastic, and the Bio Refinery, which produces biogas and is owned by the company's partner Gasum. The concept of the Circular Economy Village is unique, both nationally and internationally. (Fortum 2, N.d.)

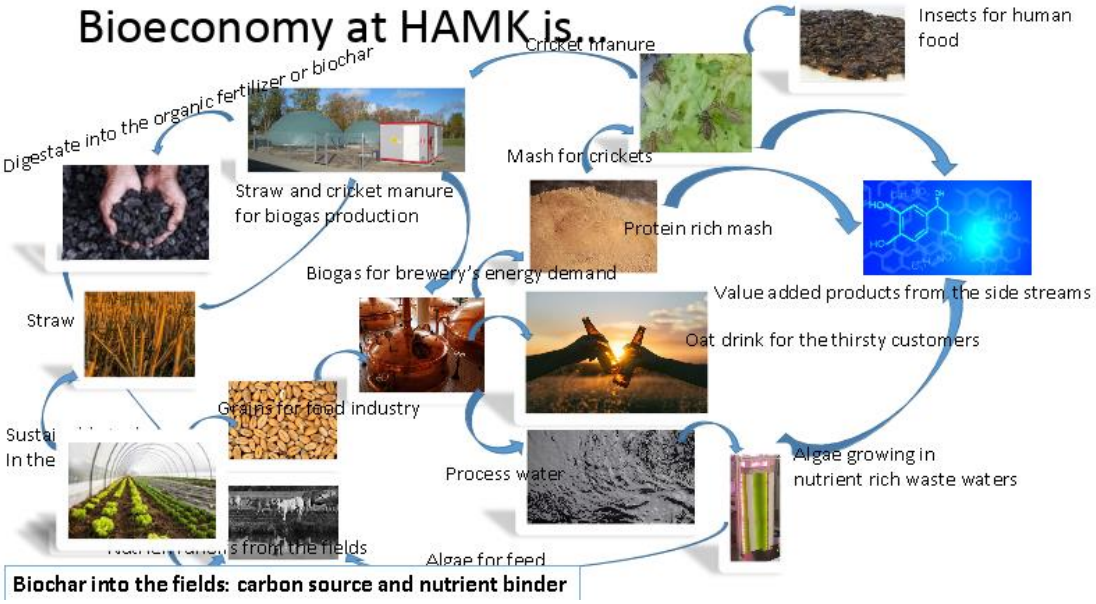
Once fully operational, the Eco Refinery of the Circular Economy Village will annually receive around 100,000 tonnes of municipal waste, from which the refinery will separate biowaste (about 30% of the waste), plastic (4%), metal (3%) and recovered fuel suitable for industrial use (50%). The remaining amount is reject, which is not suitable for recovery. The biowaste will be turned into biogas and fertilisers, and the plastic and metal into recycled raw material for industry use. The reject will be used to generate electricity and district heat in the waste-to-energy plants in Riihimäki. (Fortum 2, N.d.)

First site visit was the Circular Economy Park of Fortum Ltd. in Riihimäki. The company and its operations were presented to the participants and short walking tour was organized to see some of the operations in practice.

4 Circular economy and waste to energy projects at HAMK

Research Director Annukka Pakarinen presented HAMK Bioeconomy Research Unit. SYMBI project is one of the bioeconomy research unit's international projects. The main points of her presentation were:

- HAMK has four research units: Bioeconomy, Professional excellence, Sheet metal centre, Smart services
- Circular economy and industrial symbiosis are present especially in the Bioeconomy and Smart services research units
- The Bioeconomy Research Unit is specialized in applied research among: sustainable and smart value chain from field to field, smart growth, recycle and refine of biomass, water cycles and human in well-being environment.



Bioeconomy activities in HAMK's bioeconomy research unit's practices and projects.

Adjunct Professor Dr Harri Mattila presented the circular economy projects in HAMK. The main themes of his presentation were:

- Industrial Symbiosis in Forssa region
- Forssa roadmap to resource wisdom
- Hiedanranta district (the 'circular city' within city of Tampere)
- FRUSH event (see the chapter 7)
- Accelerating circular economy in Kanta-Häme region
- International research together with VIA University College (Denmark) and Feevale University (Brazil).

5 The site visit in construction engineering laboratory of HAMK

The agenda included a site visit to the construction engineering laboratory, the Sheet Metal Centre of HAMK. Sheet Metal Centre and the construction laboratory has research and development projects that aim at improving the competitiveness of Finnish sheet metal products and manufacturing. The centre is the oldest research unit of Häme University of Applied Sciences (founded in 1998). The centre has Finland's first near zero-energy hall for retail space and commercial premises. The hall is being used for research, development and teaching purposes by the university, Ruukki Construction and HAMK's Sheet Metal Centre. The purpose of the construction project was to show that a hall exceeding today's strict energy-efficiency requirements by 30 percent can be built for profit. (Ruukki N.d.)

Representative from Ruukki Construction and HAMK's construction engineering laboratory presented the near zero-energy hall of the Sheet Metal Centre.

Construction facts

- Responsible parties:
  - Energy concept and material supplies by Ruukki Construction Oy
  - Architectural design by Ajan Arkkitehdit
  - Structural design by Tasoplan Oy
  - HVAC design: AX-prosessit Oy
- Targets: realize nZEB as a profitable investment for the owner – compliance with future nZEB regulations
  - Delivered in 2014 – complying with 2015 regulations
- Building energy simulation at design phase, combined with wise component selection and control system
- PV panel system rated production:
  6.9 MWh/year
  (building electrical load ~ 205 MWh/year)
  Peak designed output: 7.5 kW

Empirical targets and Future works

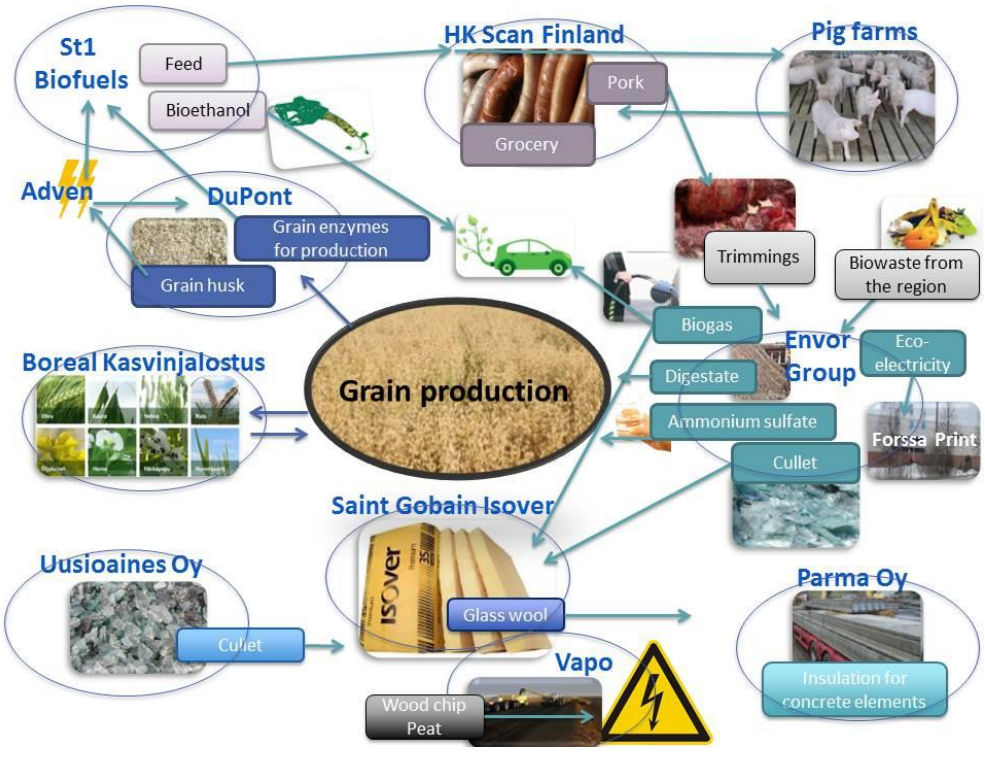
- Perfect the near zero energy building concept, as the building owner
  - Fault detection and maximize utilization rate of renewable energy systems
  - Iteratively apply new control strategy for HVAC and lighting

- Research new use cases for building energy simulation post-occupancy
  - Move onwards to open multi-domain simulation tools – e.g. EnergyPlus and Modellica – Possibly bring the strength of simulation to the end device level
  - Combined with measurement extension to comply with soon-to-come Smart Grid standards

- Server work:
  - Bleeding-edge technology testbench
  - Docker deployment → easy knowledge transfer
  - High performance for open exchange – Security for locality
  - "Building First" – Honkakoski, 2017

6 The field visit to industrial symbiosis in Forssa region

Eco-industrial Park in Forssa region consists of three main symbioses between ten companies showed in the figure below. Two of the symbioses are bio-based symbioses, which are based on material exchange. The symbiosis generates secondary materials such as big feed, fertilizers, biogas and biofuels from waste and by-products. The majority of the biogas is used as energy for the manufacturing process of glass wool insulation at a local construction company. The third symbiosis is based on the utilization of biogas in the area. The importance of the symbiosis is significant regionally as it reduces the need for exported materials such as soybean for big feed of fossil fuels for energy and fuel. Forssa region is one of the main regions in Häme, where the Finnish SYMBI partners are also located. (Winther 2017.)



Industrial symbiosis in Forssa region, Finland (Caven 2015)

During the study visit the participants had a tour around three of the companies in the Forssa symbiosis; Envor Goup, Loimi-Hämeen Jätehuolto Oy and Uusioaines Oy. A newly made video

of the symbiosis has been made to better demonstrate the symbiosis around the area. The video can be found here.

6.1 Envor Group

Envor Group offers diverse and complementary environmental management services. In 2012 the Envor Group recycled approximately 95 000 tons of waste to be utilized as a raw material. The company emphasizes that any waste material contains at least some percentage of useful raw materials that can be separated and processed to be used by different industries. In the handling of flat-glass and biowaste, Envor Group is the leading organization in Finland. Operationally the certified ISO 9001 quality system and the ISO 14001 environmental management system are followed. In addition to waste management services the company also produces biogas and bioethanol from waste based materials. (Envor Group N.d.)

Envor Group was presented at the premises of the company.

6.2 Loimi-Hämeen Jätehuolto Oy (Loimi-Häme wastemanagement Oy)

Loimi-Hämeen Jätehuolto Oy operates with municipal solid waste (MSW) from its 16 owner municipalities in Southwest Finland. The company's office and Kiimassuo waste center locates in the city of Forssa and they also have another waste center in Säkylä and seven smaller waste stations around the area total of 130 000 inhabitants. Loimi-Hämeen Jätehuolto Oy is the

parent company to LHJ Group, which consist of four companies providing business-to-business services in comprehensive waste management.

Loimi-Hämeen Jätehuolto Oy was presented in a bus tour around the site. During the tour, a representative of the company explained the recycling processes and future schemes of the company.

6.3 Uusioaines

Uusioaines Ltd. has specialized in recycling of glass since 1995 in the Forssa area. The company collects and recycles packaging glass and float glass. On the packaging glass side, the major suppliers are Palpa Lasi Oy Ltd, drinks' companies and waste management companies. Suppliers of float glass (windows and windscreens) include glass sellers, cutters, downstream operators and construction companies. The glass is crushed, cleaned and sorted according to colour. The collectable glass is refined for reuse as raw materials, in other words as cullet and delivered for industrial use. Uusioaines Oy also makes foam glass, which is an insulating product and low-capillarity lightweight-fill, manufactured from cleaned recycled glass. The capacity of the glass treatment plant is sufficient to meet the needs for the whole of Finland. (Uusioaines Oy N.d.)

The cycle of glass in Uusioaines Oy's operations. (Uusioaines Oy N.d.)

During the study visit, the participants had a chance to see the company's operation in practice. The participants were guided through the processes in two groups due to safety reasons. Both groups saw the separation processes of different recycled class materials and the making of foam glass. A demonstration video and more information about the making of foam glass is available on the company's website.

Representative of Uusioaines Oy explains the making processes of foam glass for the study visit participants.

7 The FRUSH Event

FRUSH is a Circular Economy Event for Startups and Growth Enterprises held for the second time ever in Forssa, Finland. The event is a combination of latest talks, dynamic workshops and pitching. The purpose of the event is to boost the development of growth and start-up enterprises as well as to create and promote new business opportunities around circular economy. The vision behind the event is to be the leading national circular economy event.

FRUSH brings together businesses and methods used in circular economy all around Finland. The event is aimed at everyone interested in the subject: growth seeking enterprises, start-ups, investors, cities, students of the field and research institutes. Networking and finding of

funding and investment opportunities and learn about the latest trends in circular economy directly from the experts are in the heart of the event. The main promoters of the event are Häme University of Applied Sciences and Forssan Yrityskehitys Oy (Forssa business development).

FRUSH was organized for the first time as a pilot in 2017 in the former spinning mill area of Forssa on the premises of Häme University. It was funded by Regional Council of Häme, Town of Forssa and SEUTU-program also. The event took take place in the same location this year on the 19th and 20th of September 2018. (FRUSH 2018). The design of FRUSH 2019 is on-going.

FRUSH is one of the practices to speed up the development of circular economy in Finland; start-ups and small-scale companies among circular economy and various financiers are networking and creating business relationships.

The participants of the study visit participated to the English part of the programme on 19th September. The programme was as follows:

- Responsible examples - Business Management and Entrepreneurship students and SYMBI-project
- Opportunities for Finnish Circular Economy companies in New Zealand | Dr Mariana Van der Walt from New Zealand
- The Circular and Bioeconomy Centre | Jukka Teräs, Senior Research Fellow, Nordregio
- ST1 – the company developing recycled energy | Patrick Pitkänen
- How does the EU promote and finance the Circular Economy? | MEP Sirpa Pietikäinen

The presentations that the author is willing to share, will be available on the FRUSH event website in the materials section. The documents will be uploaded in the website during autumn 2018.

8 References

Winther, T. (2017). BSR STARS S3. Innovation in the Circular Economy. Industrial Symbiosis and Smart Specialisation in the Baltic Sea Region. By Thomas Winther, Innogate ApS. Final draft Arpil 2017. Retrieved from: http://bsrbioeconomy.net/resources/Final_draft_Innovation_in_the_Circular_Economy.pdf

Caven, H. (Communications secretary - Forssa). (2015). How circular economy works in the Forssa region, Finland. Nudge Sustainability Hub. Wednesday 07.01.2015. Retrieved from http://www.nudgesustainabilityhub.com/initiatives/2015/7/1/how-circular-economy-works-in-the-forssa-region-finland

FRUSH 2018. (N.d.). Frush Circular Economy Event For Startups And Growth Enterprises. Available at: http://frush.fi/frush-circular-economy-event-for-startups-and-growth-enterprises/english/

Envor Group. (N.d.) English About Us. Available at: https://envor.fi/english/

Uusioaines Oy. (N.d.) English About Us. Company operations. Available at: https://www.uusioaines.com/en/about-us/company-operations/

Fortum 1. (N.d.).This is Fortum. Driving the change for a cleaner world. Available at: https://www.fortum.com/about-us/our-company/driving-change-cleaner-world

Fortum 2. (N.d.). The Circular Economy Village in Riihimäki, Finland. Available at: https://www.fortum.com/media/2017/11/circular-economy-village-riihimaki-finland

Ruukki. (N.d.) References. Near-zero-energy-hall. Available at: https://www.ruukki.com/b2b/references/near-zero-energy-hall#introduction

9 Annex 1: agenda

SYMBI Project

"Industrial Symbiosis for Regional Sustainable Growth and a Resource Efficient Circular Economy"

STUDY VISIT IN FINLAND, Häme Region

AGENDA

"SHARING PRACTICES ON WASTE TO ENERGY SYSTEMS IN CIRCULAR ECONOMY"

Day 1 Tuesday 18th September

Venues: Circular Economy Park of Fortum Ltd., Riihimäki & Häme University of Applied Sciences, HAMK, Hämeenlinna

8.15-8.30	**Meeting point in Helsinki Railway station**
	• Meeting point chartered bus stop in Mikonkatu 15-19 • Bus will departure towards Riihimäki at 8.30
9.30	**Study visit to Circular Economy Park of Fortum Ltd., Riihimäki**
	• Presentation of the Fortum Riihimäki circular economy activities, especially the recycling of plastics
12.00	**Networking lunch in Fortum Riihimäki**
14.00	**Häme University of Applied Sciences HAMK, Hämeenlinna**
	Circular economy and waste to energy projects at HAMK; **Annukka Pakarinen** Research Director in Bioeconomy Research Unit at HAMK, **Harri Mattila** Researcher, Principal Lecturer
14.45	**Site visit in the Construction Engineering Laboratory of HAMK Hämeenlinna**
	• **Khoa Dang**, Project Engineer, Sheet Metal Centre HAMK

16.00	**Arriving at the hotels in Hämeenlinna**
18.30	**Dinner** restaurant the Gingerbread House (Piparkakkutalo) (At own cost)

Day 2 Wednesday 19th September

Venues: Envitech area, Forssa & Häme University of Applied Sciences, Forssa

9.00	**Bus will pick participants up from hotels**
10.00	**Field visit to Industrial symbiosis in Forssa Region**
	Presentation of the Forssa industrial symbiosis in Envor's premises and a bus tour around the area. Companies presented during the visit: • Envor Group Oy (Comprehensive waste management solutions, production of biogas) • Loimi-Hämeen Jätehuolto Oy (Municipal solid waste management) • Uusioaines Oy (Glass recycling)
13.00	**Networking lunch in Scandic Forssa**
14.00	**FRUSH Event - Auditorium**
14.00 15.00 15.45 16.45 17.30	• Responsible examples – Business Management and Entrepreneurship students and SYMBI project • **Dr Mariana Van der Walt,** New Zealand, Opportunities for Finnish Circular Economy companies in New Zealand • **Jukka Teräs**, Finland, Senior Research Fellow, Nordregio • **MEP Sirpa Pietikäinen,** Finland**,** How does the EU promote and finance the Circular Economy? • **Patrick Pitkänen**, Finland, Director Advanced Fuels, ST1

18.00	**Networking event hosted by Envor Group Ltd.** Announcement of the Pitching Competition winners
20.00	**Bus to Mustiala inn accommodation**

Day 3 Thursday 20th September

Venue: Häme University of Applied Sciences, Mustiala

8.30	**Breakfast at Mustiala inn**
9.30	**A visit in the 'automated cattle shelter' at HAMK, Mustiala campus**
10.30	**SYMBI steering group meeting at Mustiala campus meeting room Neuvo**
	Parallel session for stakeholders: Time for stakeholders attending the study visit to have private negotiations with Finnish companies. Meeting room Lehtevä.
13.00	**Lunch at Mustiala**
14.00	**Departure from Mustiala towards Helsinki**
15.30	**Bus arrives in Helsinki-Vantaa airport**
16.00	**Bus arrives in Helsinki city center**

10 Annex 2: participant lists

SYMBI Interreg Europe — European Union European Regional Development Fund

SYMBI PROJECT – Häme study visit
18/09/2018
Finland

Hämeen liitto Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
1	Harri Mattila	HAMK	
2	Mik Anttila	HAMK	
3	Arto Saarinen	Hämeen liitto	
4	Liida Hoick	HAMK	
5	Maika Diaz	FUNDECYT	
6	RAUL VEGA	JUNTA DE ANDALUCIA	
7	Tsoulidou Eleni	Municipality of Kozani	
8	Korkas Vasileios	Municipality of Kozani	
9	Katouedis Dimitris	Municipality of Kozani	
10	Nikolaos Ntavas	DIADYMA SA	
11	Periklis Kofakis	DIADYMA SA	
12	MICHAŁ PREISNER	MALOPOLSKA	

SYMBI PROJECT – Häme study visit
18/09/2018
Finland

Nº	NAME	ORGANIZATION	SIGNATURE
13	Agnieszka Heinicke-Chwenowska	Małopolska	
14	Adele Rossi	CHAMBER OF COMMERCE OF MOLISE	
15	Giuseppe Cotillo	" "	
16	ANDREA BATENI	STALTIMENTI SUD SRL	
17	FRANCESCA OSNA	CREMA HOUSE	
18	Tilen Sever	RC eNeM	
19	DEJAN HRIBAR	SVRK	
20	ROBERT MUSITS	ÖKO - INNOVA	
21	PETER SZIGETHY	VMKIK CHAMBER OF COMMERCE HUN	
22	ZOLTAN KALCSU	PANNON NOVUM	
23	VIVIEN VADKERTI	MINISTRY FOR INNOVATION AND TECHNOLOGY	
24	MARIA GRACIA BENITEZ	FINDECUTT PCTEX	

SYMBI
Interreg Europe

European Union
European Regional
Development Fund

SYMBI PROJECT – Häme study visit
18/09/2018
Finland

Hämeen liitto
Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
25	FRANCISCA TENA MEDINA	PROMEDIO (SPAIN)	
26	Nieves Seijo Ramos	PROMEDIO (SPAIN)	
27	PATRICIA MORA McGINITY	GESTIONA GLOBAL S.L. (SPAIN)	
28	MARJANA DERMELJ	STRK	
29	Miha TRDIN	SINERGIJA d.o.o.	
30			
31			
32			
33			
34			
35			
36			

SYMBI
Interreg Europe

HAMK
HÄMEEN AMMATTIKORKEAKOULU
HÄME UNIVERSITY OF APPLIED SCIENCES

Hämeen liitto
Regional Council of Häme

European Union
European Regional
Development Fund

SYMBI Interreg Europe
European Union European Regional Development Fund

SYMBI PROJECT – Häme study visit
19/09/2018
Finland

Hämeen liitto Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
1	MAIKA DÍAZ AGUILAR	FUNDECYT – PCTEX	[signature]
2	RAUL E. VEGA OTERO	JUNTA DE ANDALUCIA	[signature]
3	VIVIEN VADVERTI	MINISTRY FOR INNOVATION AND TECHNOLOGY	[signature]
4	DEJAN HRIBAR	SVRK	[signature]
5	MARJANA DERMEY	〃	[signature]
6	ROBERT MUNTS	ÖKO – INNOVA	[signature]
7	ZOLTAN KAKERU	PANNON NOVUM	[signature]
8	Stefan TRZCIELINSKI	Poznan University of Technology	[signature]
9	Mariana van der Walt	Winter, New Zealand	[signature]
10	HEIKKI RUOHOMAA	HAMK	[signature]
11	Agnieszka Hawisko-Gnarasha	Małopolska	[signature]
12	Michal Prisner	Małopolska	[signature]

SYMBI
Interreg Europe

European Union
European Regional
Development Fund

SYMBI PROJECT – Häme study visit
19/09/2018
Finland

Hämeen liitto
Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
13	Harri Mettiä	HAMK	
14	ANNE-MARI JÄRVENPÄÄ	HAMK	
15	DIMITRIS KAKOULIDIS	MUNICIPALITY OF KOZANI	
16	Eleni Triviliou	Municipality of Kozani	
17	Vasilis Korkas	〃	
18	Nikolaos Ntavos	DIADYMA S.A.	
19	Periklis Kafasis	DIADYMA SA	
20	Giuseppe Cutillo	CHAMBER OF COMMERCE MOLISE	
21	Adele Rossi	CHAMBER OF COMMERCE OF MOLISE	
22	ANDREA RIATENI	SVILUPPUMBRIA SRL	
23	FRANCESCA CARLI	CHAMBER OF COMMERCE MOLISE	
24	FRANCISCA TENA MEDINA	PROMEDIO (SPAIN)	

SYMBI
Interreg Europe

HAMK
HÄMEEN AMMATTIKORKEAKOULU
HÄME UNIVERSITY OF APPLIED SCIENCES

Hämeen liitto
Regional Council of Häme

European Union
European Regional
Development Fund

SYMBI
Interreg Europe

European Union
European Regional
Development Fund

SYMBI PROJECT – Häme study visit
19/09/2018
Finland

Hämeen liitto
Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
25	MARIA GRACIA BENITEZ	FUNDECYT - PCTEX	
26	NIEVES SEIJO RAMOS	PROMEDIO -	
27	PATRICIA MORA McGINITY	GESTIONA GLOBAL S.L.	
28	TILEN SEVER	RC eNeM	
29	Miha Tadi	SIV Acroni doo	
30	SZIGETHY PÉTER	VMKIK	
31	Arto Saarinen	Hämeen liitto	
32			
33			
34			
35			
36			

SYMBI
Interreg Europe

HAMK
HÄMEEN AMMATTIKORKEAKOULU
HÄME UNIVERSITY OF APPLIED SCIENCES

Hämeen liitto
Regional Council of Häme

European Union
European Regional
Development Fund

SYMBI
Interreg Europe

European Union
European Regional
Development Fund

SYMBI PROJECT – Steering Group meeting
20/09/2018
Finland

Hämeen liitto
Regional Council of Häme

Nº	NAME	ORGANIZATION	SIGNATURE
1	ZOLTAN KAKCSY	PANNON NOVUM	
2	ROBERT MUSITS	ÖKO - INNOVA	
3	UVIEN VADKERTI	MINISTRY FOR INNOVATION AND TECHNOLOGY	
4	PETER SZIGETHY	CHAMBER OF COMMERCE AND INDUSTRY HUN	
5	Arto Saarinen	Hämeen Liitto	
6	MICHAŁ PREISNER	MAŁOPOLSKA	
7	AGNIESZKA PLEWIŃSKA-CHRZANOWSKA	MAŁOPOLSKA	
8	RAUL VEGA OTERO	JUNTA DE ANDALUCIA	
9	MARÍA GRACIA BENÍTEZ	FUNDECYT PCTEX	
10	MAIKA DÍAZ AGUILAR	FUNDECYT - PCTEX	
11	DEJAN HRIBAR	SVRK	
12	DIMITRIS KAKOULIDIS	MUNICIPALITY OF KOZANI	

SYMBI
Interreg Europe

HAMK
HÄMEEN AMMATTIKORKEAKOULU
HÄME UNIVERSITY OF APPLIED SCIENCES

Hämeen liitto
Regional Council of Häme

European Union
European Regional
Development Fund

SYMBI PROJECT – Steering Group meeting
20/09/2018
Finland

Nº	NAME	ORGANIZATION	SIGNATURE
13	Eleni Triantafilidou	Municipality of Kozani	
14	Vasilis Kochas	Municipality of Kozani	
15	Francesca [illegible]	Chamber of Commerce House	
16	Adele Rossi	Chamber of Commerce of Rome	
17	Giuliano Cutillo	" " "	
18	Iida Holck	HAMK Häme University of Applied Sciences	
19			
20			
21			
22			
23			
24			