

# Urban Baltic Industrial Symbiosis - UBIS

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**Project staff at University of Rostock:** Dr. Andrea Schüch (2/2017-12/2019), Kai Schmedemann (9/2017-8/2018)

## Background to the project

Industrial symbiosis is a known concept but the knowledge and experience varies and it has not yet been approached in a systematic manner in most regions. The goal of the project UBIS is to provide tools, implement five pilot projects and carry out activities to spread the project results and support and inspire new symbiosis projects.

We have identified a number of sites with symbiosis potential and we will use four of these sites in the project. Input will be experiences from existing symbiosis sites, where dramatic savings have been realized. The experience and learning from the existing plants and in the pilots will be documented in a set of tools for industrial symbiosis, which can be used by others also after the project.

## Project partner:

Skane Energy Agency (Sweden, lead partner, lead WP1 and2)

Sustainable Business Hub (Sweden)

City of Malmö (Sweden)

Bjuv Municipality (Sweden)

Lithuanian District Heating Association (Lithuania)

Silute District Municipality (Lithuania)

Rostock University (Germany, lead WP3)

Kalundborg Municipality - Symbiosis Center Denmark (Denmark, lead WP4)

Kalundborg Utility (Denmark)

Gdansk University of Technology (Poland)

## Communication objectives

The communication will contribute to:

- Create awareness and interest in the possibilities of industrial symbiosis
- Disseminate project insights and results to help other stakeholders to start working with industrial symbiosis and replicate the pilot investments
- Create demand for toolbox to establish industrial symbiosis projects

## Target groups

Target groups for the communication in this project are:

1. Local and regional authorities
2. Resource intensive industries
3. Energy and waste companies
4. Suppliers of symbiosis technology
5. Public-Private Partnership consortium

## Outcome of the project

The project contributes to reduced emission from energy production by introducing and expanding industrial symbiosis in the region. The project will deliver a toolbox for industrial symbiosis and establish a network as host for these assets in the programme area.

### Collect experiences from existing symbiosis plants

We will collect experiences from existing symbiosis plants and planned pilot investments that will be made in the project. We will analyse the cases based on size of resources that could be retrieved, size of investments necessary, business model used, complexity of projects, legal agreements and other factors. Country specific conditions, such as national policies, will be taken into account.

The analysis, as well as input from academic research and previous experience, will eventually boil down to a set of tools for identification and evaluation of industrial symbiosis prospects, including the critical success factors identified in the analysis and research. Through an iterative process, the “tool prototypes” will be tested, modified and improved in the pilot symbiosis planning and implementation.

### Models and tools

The purpose is to encourage development of tentative plans for new projects. Access to models and tools will speed up the process of attracting and engaging new companies. Actual cases, analysis tools and proven business models will help to convince new companies of the potential of industrial symbiosis.

### Study tours

In parallel, study tours will be arranged to build a common understanding among the project partners and companies involved in the identified pilot plants. The tours will combine visits to present and future symbiosis sites with expert presentations and problem solving workshops where participants will be able to discuss and learn about opportunities and conditions in the programme area.

### Initiate symbiosis projects

We will also initiate symbiosis projects in Sweden, Denmark, Poland and Lithuania. This will make it possible to go ahead with investments and initiate projects, and lower the threshold for companies to make decisions, due to public funding contribution.

The Pilot sites are in Bjuv in Sweden, Malmö in Sweden, Silute in Lithuania, Kalundborg Municipality in Denmark and Kalundborg Utility in Denmark.

### Regional networks

Regional networks will be established, to facilitate study visits and exchange of experience. The networks will also be the regional hosts for the tool box and new symbiosis initiatives. In each region, a project partners will be responsible for the network establishment, and at the end of the project, a suitable regional host will be identified.