

Experience in the demo region of Skaraborg (Sweden)

Although bioenergy is one of the main energy sources in Sweden, there is still a large potential for growth. This applies particularly in small and medium-sized heat and co-generation plants, and for biogas for CHP and vehicle fuel. The market is categorized by many different actors throughout the value chain, most of them small with limited development resources and financing capabilities. The approach has therefore been twofold, addressing the strategic development with respect to local and regional public bodies, and facilitating and support capacity building for actors in the market.

In the strategic development context, the project has arranged or been involved in forums addressing regional growth, sustainability and rural development. Examples are the regional kick-off, a rural development conference and the regional authority's platform for a roadmap for sustainable development. All-in-all, these events have reached almost 300 participants and addressed sustainable bioenergy development as a key area for the Skaraborg region.

The Skaraborg regional experience is that it is crucial to have an understanding of related strategic areas, such as rural development, business development, job creation and overall sustainability. This is a prerequisite to capturing the interest and confidence of politicians and decision-makers. Today, there is a strategy for the region where bioenergy plays a vital role. A larger development project called "Green Process Area" has also been launched, in which the project has played a role, and is still considered an important contact point for identifying and implementing actions in line with their objectives.

Within the project, the Skaraborg region has been able to implement a range of supporting actions targeting stakeholders such as farmers, forest owners and SME's within the bioenergy value chain. An example of this is the initiative to set up and implement a "bioenergy square" at the first agricultural fair arranged in the region. The fair was held in March 2013, and attracted 8,146 visitors. They were able to visit almost 20 exhibitors in the bioenergy area and attend mini-seminars on bioenergy for heating, biogas and domestic energy solutions. Several articles were published in regional and local media in relation to the fair.



Figure caption: the agricultural fair in March 2013 had 8146 adult visitors. Many of the visited the bioenergy square with 20 exhibitors

In addition, the project has been participating in and has arranged many meetings with stakeholders in areas such as bioenergy for grain drying, small bioenergy plants and

district heating networks, bioenergy terminal and logistic development and farm-scale biogas plants.



Figure caption: site visit and discussions at Hökerum 800 kW bioenergy heating plant

Experience indicates that it is necessary to have a good network within the region before the project starts, and that other facilitating actions are needed in order to reach out. This is necessary to be effective and cost-efficient, but even more to avoid “over communication” with the target groups. Too much information and too many contact points

can be a limiting barrier in itself.

In addition, the project has worked with transnational exchange activities to demonstrate the experiences and good examples from Skaraborg and to learn from others. This has mainly focused on the other project demo regions. Examples are a study tour from Poland displaying the biogas value chain from waste to wheel and the study tour to Kalundborg, Denmark, to learn about industrial symbiosis as a working method for sustainable solutions. Now four municipalities in West Sweden are actively working on the first stages of industrial symbiosis, and there are plans for further co-operation with the Zealand region in Denmark. A key experience in this context is to try to bring the same persons/functions from the two regions together.



Figure caption: Swedish delegation outside the Symbiosis Centre I Kalundborg, Denmark

Key conclusions and experiences

- Continued support and advice to businesses and stakeholders is vital to function as a regional network point. If this is established stakeholders contact you, and an overview of on-going and planned actions, initiatives and interests is continuously update. The Bioenergy Promotion project has been able to act as a regional network point. One example is the co-ordination of a “bioenergy square” at the regional agricultural fair, with over 8000 visitors, as well as participation in farming networks in the bioenergy field.

- Spatial planning and strategies in relation to bioenergy development are mainly carried out at local and regional level. The ability to take part in these processes, due to the Bioenergy Promotion project, has been very valuable. Through the project several municipalities have been given input and advice on bioenergy within energy planning, rural development and public initiatives, as well as in developing new building areas and investing in existing buildings, areas and utilities (district heating and electricity).

- Learning from others.
 - The opportunity to demonstrate success in developing biogas production and use for both CHP and vehicle fuel to the other demo regions has been positive for those concerned. The fact that they serve as a good example to others has empowered them to carry on their work even more. One example here is the study tour from Poland.
 - The study tour to Kalundborg to look at industrial symbiosis in action was really a door opener for the participating municipalities to adopt to this approach in their work with business and rural development. They are now all working with parts of the IS methodology as a driver for development.

