Experience in the demo region of Gdynia (Poland)

The activities in Demo Region Gdynia concentrated on the waste management system which complies with EU regulations. It is a serious problem, especially in new EU countries, which must be solved before 2020. The activities and related events addressed local decision-makers, authorities and agencies representing regional governments responsible for local energy policies, and renewable energy specialists. A series of seminars and workshops were organized in order to assess the best practices in BSR. Below are descriptions of the findings of these events.

The Polish-Swedish Seminar on the Swedish Model for Waste Utilization covered a wide range of different topics related to waste management in Sweden and in Poland, including both policies and specific measures for waste utilization. In particular, the discussion concerned the environmental objectives related to waste, principles for sustainable waste management, effective reuse and recycling, waste incineration and landfill gas systems, biogas and biofertilizer production from municipal waste, biogas as a fuel for city buses.

The goal of the Baltic Biogas Forum was to highlight the importance of energy security in Baltic cross-border regions by raising awareness of the sustainable management of existing biomass and biogas sources (both agricultural biomass and municipal waste). More than 100 attendees, representing different national and regional Polish institutions engaged in activities connected with bioenergy, took part in the event. The guests from abroad (Norway, Sweden and Latvia) presented conditions and some specific solutions for bioenergy and biogas development in their countries.

The seminar on ‘How to prepare investment process in ecoenergetics? The key actions to convince local stakeholders and the public’, addressed local decision-makers, authorities and agencies representing regional governments responsible for local energy policies, and specialists in renewable energies. Presentations entitled ‘The concept of locally based energy systems and the local economic and political benefits’ and ‘How to develop the energy system - technical solutions’, with the examples for an effective stakeholder engagement process for new initiatives in renewable energy implementation, were given by professionals from Denmark. Some solutions concerning the local energy systems implemented under Danish conditions were presented. Discussion of the different aspects of planning and designing of local energy systems was initiated by the presentation ‘The energy system and challenges with regards to energy supply and consumption in Gdynia’.

The Biogas Study Tour to Swedish biogas plants utilizing wet fermentation technology was attended by a group of ten Polish professionals from various public institutions. The study tour provided the participants with general knowledge on the Swedish 'biogas for transport' model of waste utilization. Participants visited several biogas plants in the Lidköping region. Similarly, a Biogas Study Tour to German biogas plants utilizing biowaste was very useful for planning further improvement of the waste management system in the Gdynia Region.

Key lessons in waste management

The Polish municipalities currently elaborating their strategies for waste management systems have to account the requirements of the Water Framework Directive and EU Decision (2011/753/EU) when planning new installations for thermal treatment of municipal solid waste. The installations for the combustion or gasification of dry combustible fractions of municipal waste, so-called ‘pre RDF’- RDF - Refuse derived fuel (which means mainly combustible components of municipal waste such as platstics and biodegradable waste), should be designed properly (especially with regard to the installation size). Separated at source, organic fractions of municipal wastes of high moisture content should be subjected to aerobic or anaerobic processes, producing high-quality products that can be used as a fertilizer or soil improver. Then the processes of the waste thermal treatment can be considered in the EU recycling target calculation.