

Technologies

FOR SUSTAINABLE FOOD PRODUCTION IN THE BALTIC SEA REGION

Agro Business Park is leading Work Package 4

Investment Preparation:
Accelerate investments in
best available technologies
and solutions



Baltic Compass Work package 4 project manager Henning Lyngsø Foged at a recent meeting in Minsk, explaining pan Baltic cooperation possibilities to stimulate investments in innovative agro-environmental technologies.

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About the Baltic Compass project and this newsletter

This newsletter

If you are unsure of why you receive this newsletter, it is because one of the 22 project partners has recommended adding you to the mailing list as someone who might have an interest in the knowledge generated in the project, and especially in Work Package 4 activities to accelerate investments in best available technologies and solutions.

The newsletter will be sent out on a quarterly basis. Mainly it will deal with research and development of innovative environmental technologies, investments, relevant policies and framework conditions, and interesting events related to the subject and region.

If you would like to contribute to this newsletter by sharing your knowledge, e.g. with relevant articles, information, or anything else that might be relevant to this network, you are most welcome to contact the editorial board – see the colophon.

If you do not wish to receive the newsletter feel free to unsubscribe, also by contacting the editorial board. You are also most welcome to forward the newsletter to anyone in your network who you think might be interested.

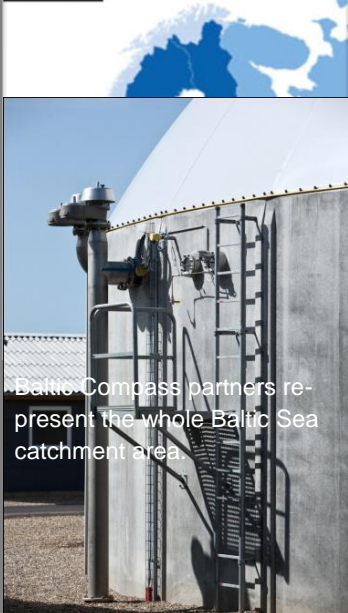
Baltic Compass

Baltic Compass is a pan Baltic project which aims to find ways that the agricultural sector in the Baltic Sea Region can produce the food required by its 90 million inhabitants, while at the same time preserving the Baltic Sea by reducing eutrophication (nutrient over enrichment). 22 partners from the riparian countries share their practical and scientific knowledge about agriculture and the environment in this project.

The main purposes are to strengthen the transnational and cross-sectorial dialogues between the Baltic region countries, enhance utilization of best practices and interactive ICT decision support tools, as well as accelerate investments in the best available technologies and solutions.

Read more about the project here: <http://www.balticcompass.org>

Partners



Baltic Compass partners represent the whole Baltic Sea catchment area.

Knowledge Sharing

Use of near infrared spectroscopy for determination of the chemical composition of slurry

By Henning Lyngsø Foged, Agro Business Park, Denmark

Slurry qualities vary a lot

It is well known that the chemical composition of slurry is of great importance for precise use of it as fertiliser as well as for an optimal anaerobic digestion in biogas plants. The most interesting parameters for slurry used as a fertiliser are the crop nutrients, mainly nitrogen and phosphorus, secondarily for instance potassium and sulphur. For biogas plants, however, the content of volatile fatty acids (VFA's) is most important in relation to an optimal digestion process.

Whether dealing with slurry in connection to spreading of it on the fields for fertilisation purposes, or in connection to anaerobic digestion, the problem is that the important parameters show a rather big variation, even within the same day and within the same batch on the same farm / for the same source.

Conventional analyses and their drawbacks

Conventional analysis methods incur sampling followed by quick testing for some chemical agents, or laboratory testing, where after the results must be interpreted and slurry spreading speed and rate / the biogas plant operation adjusted. The clear drawbacks of those conventional analysis methods are that

- they take time, and in some cases the analysis results have, with reference to the above, lost their relevance when the analysis results become available;
- they disturb the actual work-flow process; and
- interpretation and following adjustment of the processes are not automated.

The drawbacks mentioned are also the reason why the monitoring of slurry qualities too seldom is used for optimising precise slurry spreading or anaerobic digestion processes.

Conclusions from roundtable discussion

Agro Business Park had on 26 August, 2010 organised a roundtable discussion concerning the feasibility of Near Infrared Spectroscopy (NIRS) for quick testing of slurry.

Participants in the roundtable discussion about NIRS included a delegation of advising technicians connected to IRTA (Institut de Recerca i Tecnologia Agroalimentaries, Generalitat de Catalunya), Mas Badia, Catalonia, Spain, as well as representatives from Faculty of Agricultural Sciences, Aarhus University, Zunhammer Gülle-Technik GmbH, and Biocover.

The conclusions of the discussions were among other that:

Technology for trustworthy, seamless and real-time NIRS monitoring of plant nutrients in pig and cattle slurry as well as digestate has been developed, including automatic adjusting of the slurry spreading speed and rate. The method is currently not so precise for mixed slurries.

There has not yet been developed a NIRS testing method, which is precise enough for monitoring of the anaerobic digestion processes in biogas plants. However, it seems there is a vast market for such technology.

Further information about the subject can be found here:

http://cbmi.dk/upload/news/attached/1284636669_nir_in_danish_biogas_2010_ajw.pdf

http://cbmi.dk/upload/news/attached/1284636669_van-control_engl_2010-08_junx.pdf



New Swedish strategy for biogas production

By Charlotte Samuelson, Baltic Sea 2020 Foundation, Sweden

Digestion of selected wastes provides a valuable opportunity to close the recirculation of plant nutrients, thus giving a socioeconomic benefit in addition to the biogas. This is one of the conclusions made by Swedish Energy Agency, the Swedish Board of Agriculture, and the Swedish Environmental Protection Agency in the horizontal biogas strategy which was submitted to the Swedish Government in September of this year.

The report "Proposal for a multidisciplinary approach for biogas" is the result of a government commission aimed at increasing the long and short term use of biogas. The report identifies anaerobic digestion of manure as particularly interesting because it provides both climate and environmental benefits.

For more information (in Swedish):

http://www.energimyndigheten.se/Global/Press/Pressmeddelanden/Biogas_Slutrapport_fin_al30aug2.pdf

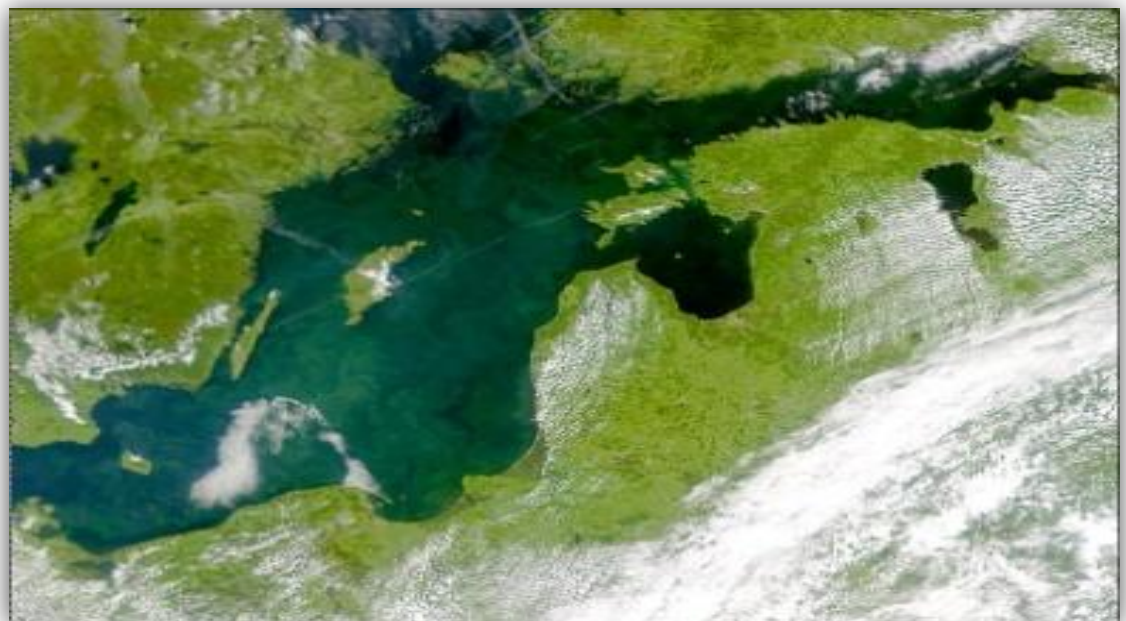


Biogas on the political agenda in Poland

There is broad consensus that biogas is a large, untapped resource in Poland that can contribute to the country meeting its goals as an EU member. However, relatively few biogas plants are actually in the process of being constructed because of various issues such as economy, technology and general skepticism towards biogas. However, the Polish government is expressing political will to help the development along. Minister of Agriculture and Rural Development in Poland, Marek Sawicki, has recently stated:

"Biomass potential in Poland is estimated to enable biogas production in the amount of ca. 2 billion x 10⁹ m³ by 2020. To use this potential, Polish government has prepared 'Directions for agricultural biogas-plants development in Poland in 2010-2020', which is currently discussed by the Council of Ministers"

Thus biogas is on the political agenda in Poland today which is positive news for both potential investors and the environment around the Baltic Sea.



Colophon

This electronic newsletter is sent out quarterly with the purpose to support innovation and investments within agro-environmental technology in the Baltic Sea Region by publishing relevant knowledge about the field to the Baltic Compass Network.

To read more about the project please go to:

<http://www.balticcompass.org>

We encourage everyone to contribute with content to this newsletter by contacting the editors.

For subscription or un-subscription, please notify one of the editors via e-mail.

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BALTIC COMPASS

by leader of Work Package 4,
Agro Business Park A/S



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Upcoming events

Networking: AgroMatch at Agromek

Venue: MCH Messecenter Herning, Herning, Denmark

Dates: 1-2 December, 2010 (deadline for registration 17 November, 2010)

The event: AgroMatch is an international matchmaking event for companies and organisations within the biomass to bioenergy sectors, giving participants from all over Europe the opportunity to get into new markets and to find new technologies and methods in a fast and cost-effective way. Have up to 20 pre-booked meetings in only 2 days.

More info: http://bioenergy-match.eu/en/events/agromek/agromatch_and_guided_tours_at_agromek_2010.htmv

Conference: A greener agriculture for a bluer Baltic Sea

Venue: Hotel Hilton Kalastajatorppa, Helsinki, Finland

Date: 17 November, 2010

The event: The aim of the conference is to gather together key stakeholders from agricultural and environmental sector and together find ways how to minimize negative environmental impact upon water from agricultural activities - without reducing production or competitiveness of the agriculture in the Baltic Sea Region.

Agro Business Park will conduct an in-conference seminar on "Investments in agriculture for better environment". Presentations from this as well as from the entire conference will be available at [/www.balticcompass.org](http://www.balticcompass.org) after the conference.

More info: http://balticcompass.org/index.php?option=com_content&view=article&id=72:baltic-compass-conference-and-stakeholder-meeting-autumn-2010&catid=34:upcoming-events

Workshop: Managing livestock manure for sustainable agriculture

Venue: Hof van Wageningen - Hotel & Congrescentrum, Wageningen, The Netherlands

Dates: 25-26 November, 2010

The event: The aim of this workshop is to promote exchange of information on manure management among EU Member States, with special focus on manure processing. The target audience of this workshop are policy makers, farmer organizations, environmental groups and scientists.

More info: http://www.ramiran.net/doc10/workshop_manure_prog.pdf