

Attracted attention at Vaasa Energy Week

During the winter time, the laboratory work on cultivation and harvesting of algal biomass has continued. The project partners have worked on harvesting experiments, extraction of algae and initial experiments on transformation of algal biomass to biogas. TransAlgae was also present at the annual Vaasa Energy Week event.

NETWORKING AT VAASA ENERGY WEEK

As one of the few projects represented among all companies, TransAlgae was catching a lot of attention. There was always someone to discuss with and sharing experience about algae. A common discussion was about cultivation of algae in waste water as compared to clean water, which enables different end-products.



People also got a better feeling of the difference between micro- and macroalgae since we showed samples of both in the stand. The project leader Francesco Gentili also gave a short presentation of the project.

PRODUCTIVE PROJECT MEETING

The project group met in Vaasa in a very productive meeting with fruitful discussions.



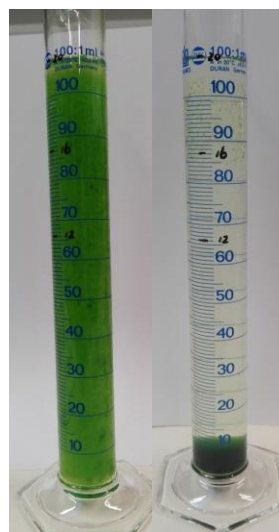
ALGAE SEMINAR IN VAASA

TransAlgae and the University of Vaasa was hosting an interesting algae seminar with attendees from external actors. Our project was highlighting different cultivation systems and harvesting of microalgae as well as the biomethane potential of algae. The University of Turku gave a presentation of their different activities on algal research. The company Sybimar presented about aquaponics and the possibilities to use old buildings for producing fish and vegetables.

HARVESTING OF MICROALGAE

At the University of Vaasa, laboratory experiments of harvesting the microalgae species *Chlorella Vulgaris* using the natural flocculant Chitosan showed promising results (See Figure). Chitosan is present in shells from crab or shrimp.

More information on other harvesting experiments using magnetic material can be read in InfoSheet No 5.



BIOGAS FROM MICRO- AND MACROALGAE

Initial experiments of the biomethane potential of both microalgae and macroalgae has been evaluated. The picture shows the BMP-equipment during the visit in the laboratory during the project meeting in Vaasa. Preliminary results indicate that microalgae need to be co-digested with other substrates to increase the methane production. This will be tested further on in the project as well as pre-treatment. Macroalgae showed promising results and will be further evaluated.



BMP-equipment at Novia UAS.

INFOSHEETS

So far, five InfoSheets with two-sided information of work from TransAlgae have been published.

All InfoSheets can be downloaded at our project homepage:

www.biofuelregion.se/transalgae/infosheet



1 TransAlgae-Algae for a Fossil Free Future

This is a summary of the different activities in the TransAlgae project.

2 Microalgal Lipids can be Smartly Enhanced

Summary of a publication by the University of Vaasa. Description of different methods on how to increase the lipid content in microalgae.

3 Biogas from Algae in Nordic Countries

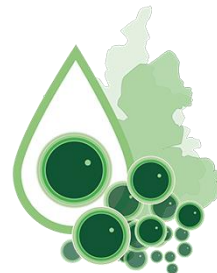
Summary of a Bachelor Thesis at Novia UAS. The potential of using algae as substrate for biogas has been investigated with respect to different parameters.

4 Determining Biogas Yield of Algae

Description of the equipment and methods used to determine the biomethane potential at Novia UAS.

5 Using Magnetic Material to Harvest Microalgal Biomass

A summary of a short publication done by the University of Vaasa. Different harvesting experiments of microalgae has been performed.



UPCOMING ACTIVITIES

TransAlgae will attend and present posters at two conferences:

ISAP – 6th Congress of the International Society for Applied Phycology, 18-23 June, 2017. Michael Roleda, NIBIO.

EUBCE – European Biomass Conference & Exhibition in Stockholm, 12-15 June 2017. Francesco Gentili, SLU.

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