

The Algae Event

New algae cultivation technologies for the development of an attractive bio-based market
5 June 2013 • Bella Center - Copenhagen, Denmark

The Projects

Today we aim to provide you with an overview of progress within two European-funded projects focused on advancing the algal biotechnology marketplace:

EnAlgae: *The EnAlgae project is currently sharing experiences across our network of nine pilot algal production sites and investigating and quantifying opportunities for the algal biomass sector in Northwest Europe. By 2015 it aims to combine this technology and market information across the algal bioenergy delivery chain into a comprehensive and user-friendly decision support tool. This will guide stakeholders and future actions in the region.*

ALGADISK: *The aim of the ALGADISK project is to develop a modular, scalable and automatic biofilm reactor for algae biomass production, with low operational and installation costs, by the end of 2014. The reactor design will be made on the basis of energy balance and sustainability calculation to capture CO₂ from industrial emissions in order to produce high value organic products. The proposed system will be specifically crafted to meet the needs of European SMEs who are willing to produce algae biomass products from industrial emissions.*

Organizer and hosting event



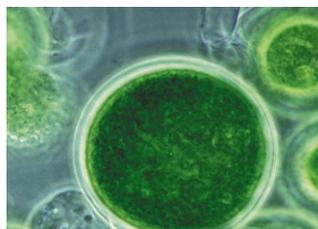
EUBIA - The European Biomass Industry Association

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The event is part of the **21st European biomass Conference & Exhibition**

3-7 June 2013
Bella Center, Copenhagen
Denmark
www.conference-biomass.com



"We welcome delegates to our "Algae Day" Session at the 21st European Biomass Conference and Exhibition in Copenhagen, and hope that you find the session both interesting and stimulating. Algae have been promoted as a suitable feedstock for biofuel production on account of their high oil and sugar content, high growth rate, suitability for marginal land and low demands on freshwater and land compared to food crops. Yet significant challenges remain to turn this potential into a commercial reality; not least if we are to reduce the unit cost price for production, which currently far exceeds fossil fuel prices. We look forward to meeting you and thank you in advance for your active and thought-provoking contributions to the discussion".

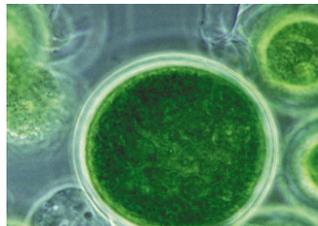
Shaun Richardson, EnAlgae project coordinator - Melinda Kozak, R&D Leader of ALGADISK

AGENDA:

- **14.00 – 14.20** *Welcome and short presentation including overview on EC support programmes (FP7, INTERREG) – Andrea Salimbeni, EUBIA*
- **14.30-15.00** *EnAlgae: Energetic micro and macro algae in North West Europe – Chris De Visser, Wageningen University*
- **15.00-15.30** *ALGADISK: New Photobioreactor with rotating disks to increase micro-algae production – Jorge de Saja, ALGADISK project coordinator*

Coffee Break: 15.30-15.50

- **15.50-16.30** *The key challenges to making biorefineries viable – Dr Robert Lovitt, Swansea University*
- **16.30-17.10** *Selection criteria of the algae applied in ALGADISK project and the results of the algae sampling from the hot springs of EU – Ms. Tasneem Bhaiji, Cranfield University; Ms. Petra Sebestyen, Bay Zoltán Nonprofit Ltd*
- **DISCUSSION:** *Future perspectives and global market forecast*



EnAlgae brings together 19 partners and 14 observers across seven EU Member States. It aims to reduce CO₂ emissions and dependency on unsustainable energy sources in North West Europe. The project is developing sustainable technologies for algal biomass production, bioenergy and greenhouse gas (GHG) mitigation, taking them from pilot facilities through to market-place products and services. By developing and sharing nine pilot-scale facilities across the territory, cost and access barriers can be overcome. The facilities will also give plant operators the ability to experience the full range of physical parameters (ranging from rural countryside to industrialised areas) that are present within the region. Project participants will also benefit from financial and political support and can jointly develop and share best-practice models. In turn, these best-practice models may then influence their respective national, regional or local policies.

www.enalgae.eu



EnAlgae is a four-year Strategic Initiative of the INTERREG IVB North West Europe programme. It was formally approved in March 2011 and officially ends on 30th June 2015.



The aim of the ALGADISK project is to develop a modular, scalable, and automatic biofilm reactor for algae biomass production, with low operational and installation costs. The reactor will be designed to capture CO₂ from industrial emissions to produce high value organic products. In this system, algae will be grown both in an aqueous environment and on biocompatible surfaces, allowing for CO₂ absorption from either the gas or liquid phase. This method will dramatically increase the efficiency of the reactor and decrease water requirements. Automatic and continuous harvesting of algae will be designed to optimize CO₂ uptake and biomass production. Adjusting the scale of the system will be trivial, as ALGADISK will have a modular design, and the footprint of installation will be considerably reduced, compared to technologies currently on the market. Design software will be provided - which based on user input - will suggest installation parameters, perform a cost/benefit analysis to calculate economic feasibility, and make predictions concerning the environmental sustainability of the system. The proposed system will be specifically crafted to meet the needs of European SMEs who are willing to produce algae biomass products from industrial emissions. www.ALGADISK.eu



The research leading to these results has received funding from the European Union's Seventh Framework Programme managed by REA Research Executive Agency [http://ec.europa.eu/research/rea\(FP7/2007-2013\)](http://ec.europa.eu/research/rea(FP7/2007-2013)) under grant agreement. It started on 1 January 2012 and officially ends on 31 December 2014.