

Feasibility Study for Development of an Algal Innovation Centre

Introduction

InCrops Ltd has been funded to carry out a feasibility study to investigate the potential for developing an algal innovation centre in the region.

Algal technologies have an immense, as yet hardly tapped potential to contribute to low carbon economic growth in our region and world-wide. So far they have seen limited use by small specialised industries to generate high value products at high cost and with unfavourable carbon footprint. However, if grown eg in conjunction with Anaerobic Digestion, they can provide value-added bioremediation, turning waste CO₂ and nutrient-rich liquid digestate into valuable feedstock for biorefineries. Potential outputs of this process include high value products such as nutraceuticals, oils, starches and proteins, as well as bioenergy. The opportunities for companies in our region to develop this budding low-carbon technology are tremendous, but so are the challenges.

The potential of algae has also been recognised nationally by DECC, who in a recent report (<http://tiny.cc/DECCALGAE>) clearly state the need for demonstration facilities and an 'algae centre of excellence'.

Since algal technology is essentially new to the region, a detailed scoping study is needed to identify which steps are required to capitalise on the existing opportunities and strengths, and what kind of investment is needed for each step of developing an Algal Innovation Centre in the region.

Published below are a series of work packages that make up this project:

Potential consultants or organisations are invited to provide bids for the one or more of the individual work packages or elements of these packages.

Work Package 1: Review of

- stakeholders and potential sites for an Algal Innovation Centre in the region
- literature of algal growth on diluted liquid digestate from AD
- upcoming funding opportunities for establishing an innovation centre
- case studies of other algal growth facilities and innovation centres

Work Package 2: Preliminary algal growth trials at two sites to be confirmed: Determination of growth of naturally occurring species vs fast-growing culture collection species, assessment of species suitability, summarised in a report.

Work Package 3: Building the case for funding an Algal Innovation Centre:

to address in detail

- which benefits an Algal Innovation Centre would bring to the region
- how this fits in with other algal projects in the UK and Europe
- which are the most suitable locations and for what reasons
- what initial steps need to be taken to establish a basic centre
- what resources are needed for these initial steps
- where these resources could come from
- how the Centre could be developed beyond that in subsequent steps
- what resources would be needed for these subsequent steps, and
- how they could be a financed

The case should include an outline EU funding application.

Work Package 4: Integration of findings from WP 1, 2 and 3 in final report. The report should close with clear recommendations as to site, scale and funding sources for the Centre and should provide a roadmap for implementation and future development.

Draft reports are to be submitted to InCrops early on in the project for discussion; reports are to be finalised and submitted to EEDA by 30 June 2010.

Interested parties wishing to be considered for this consultancy opportunity should respond to Penny Wright, Project Administrator, with the following information by 12 noon on Thu 11th March 2010 to penny.wright@uea.ac.uk.

Please include

- A resume of previous experience together with CVs of staff that will be involved in delivering the work and for an organisation, a resume of technical competence and experience.
- A quantification of the proposed costs and per diem rate per work package or element within each work package
- A proposed timescale for conducting the work and delivery of the end report for each work package.