

# BioMara

Sustainable Fuels from Marine Biomass  
An INTERREG IVa Project

## INTRODUCING THE BIOMARA PROJECT *including the* **Scottish Technical Stakeholder Meeting Summary**

The Sustainable Fuels for Marine Biomass (Biomara) project is a UK/Irish research Project co-ordinated by the Scottish Association for Marine Science (SAMS) to demonstrate the feasibility and viability of producing third generation biofuels from marine biomass.

Researchers from six different institutions across the UK and Ireland are investigating the potential use of both micro and macro-algae as alternatives to terrestrial agri-fuel production. The practicalities of using algal biomass as a competitive, sustainable biofuel source are considered in concert with wide stakeholder engagement, whilst environmental impacts of algal cultivation and extraction are also a core element of the research.

The €6 million project is funded by the INTERREG IVA Programme. Match funding is provided for the Scottish Partners by the Crown Estate and Highlands and Islands Enterprise, in Northern Ireland by the Department for Energy, Trade and Industry and in the Republic of Ireland by the Department of Communications, Energy and Natural Resources.

Within the Biomara project the practicalities of using algal biomass as a competitive sustainable biofuel source will be considered in concert with wide stakeholder engagement, whilst environmental impacts of algal cultivation and extraction will be core considerations of the project.

High rainfall and poor agricultural land in areas of Western Scotland, Northern Ireland and the Republic of Ireland severely limit cereal and oil seed cultivation, restricting the potential production of terrestrially derived biofuels.



Biomara aims to provide the region with a sustainable fuel source by providing locally produced, renewable and relatively cheap low-impact fuel that may help to support traditional ways of life.

**Scottish Technical Stakeholder Meeting.** The Scottish Technical Stakeholder Meeting was held at the Scottish Association for Marine Science on June 8th 2009. The meeting was split into two sessions; the morning consisted of a series of presentations by SAMS staff (listed below) and the afternoon session was a facilitated workshop discussion

### Morning Session

Introduction to BioMara. Dr. Michele Stanley  
 Algal Biotechnology: facts, fiction and future prospects. Dr John Day  
 Fuel from Seaweed. Dr Michele Stanley  
 Will wet renewable devices make good bed fellows with whales, birds and fish? Dr Ben Wilson  
 The presentations are available to download from [www.biomara.org](http://www.biomara.org)

### Afternoon Session

The purpose behind this session was to:  
 Identify the most interesting components for stakeholders  
 Answer any specific queries stakeholders have about Bio-mara  
 Define follow-up information that stakeholders may wish to receive  
 Identify participants willing to take an active part in the Bio-Mara Stakeholder Group.

## Scottish Technical Workshop Summary

Approximately 130 individuals were invited to attend the Technical Stakeholder meeting with 26 Delegates arriving on the day. All participated in group discussions on the BioMara project and their expectations of it. 20 completed enquiry forms in which they recorded their opinions. This is a summary of those opinions as expressed during question and answer sessions, and open discussions and on enquiry forms.

*Please note that while every effort has been made to ensure all views have been captured accurately; they have been edited and synthesised for conciseness. They do not necessarily represent the views of BioMara, its partners or its sponsors.*

## Outcomes from the facilitated discussion session

### Outcome 1: Areas of interest.

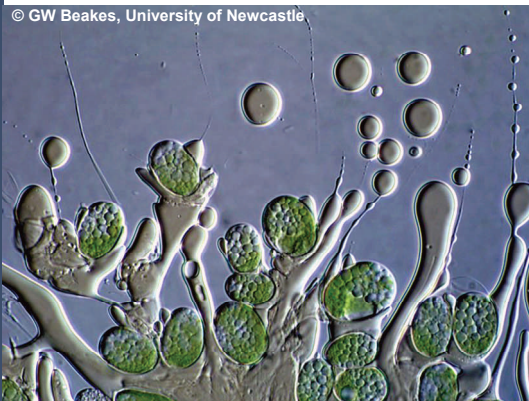
Unsurprisingly the areas of interest ranged from the general to the specific.

**Businesses**, especially SMEs, were interested in supply chain and end-user activities such as:

- commercial opportunities for energy generation from seaweeds;
- business opportunities for growing algae to supply seaweed to an emerging algal biomass industry;
- opportunities to supply component parts of an emerging algal biomass industry



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**Government agencies, NGOs, charities** and similar agencies were more interested in being kept abreast of developments in terms of its:

- scale and economic viability;
- relevance to coastal planning issues;
- job creation;
- social, socio-economic and environmental impacts (especially in remote and rural areas) and areas for community-based development.

## Outcome 2: Maintaining communications.

There was clearly a desire to be kept in touch with BioMara developments primarily by e-mail but some respondents emphasised the value of face-to-face and several have suggested regional or sectoral meetings, possibly locally hosted and/or sponsored. Several delegates emphasised that communications should be kept short and provide links to sources of further data. Some wishing only infrequent up-dates suggested "breaking news" bulletins to announce significant developments between regular communications.

There were some differences in the frequency of communication desired with monthly (short) newsletters being preferred by some but a clear majority seeking less frequent (quarterly or half-yearly) up-dates, possibly giving more detail.

There was a great emphasis on applicable outcomes and end-user/supplier information being the main area on which stakeholders most wished to be kept abreast.

## Outcome 3: Other interests, comment and criticism.

Interests were expressed in:

- understanding the BioMara workplan;
- understanding expected outcomes;
- identifying by-products of algal fuel recovery processes, including pre-treatment;
- synergies/integration with other marine activities, especially marine re-newables, aquaculture, marine bio-prospecting;
- community impacts.



There was some gentle criticism, especially from business participants, that little effort had been made thus far to explain BioMara's work programme and the outcomes that it was expected to generate. This has been addressed for the forthcoming Belfast meeting where the programme will be more fully explained. Over emphasis on process and science or under emphasis on outputs and progress towards them could impact stakeholder engagement.

It was commented that, without an explanation of both process and outputs, it would be difficult to engender end-user interest and define opportunities for development and application of technologies emanating from the science programme. Establishing and explaining milestones to progress were activities frequently mentioned as desirable.

The need to communicate science outputs in a way that non-scientists can comprehend was emphasised.

The difficulty of funding travel to and attendance at meetings and workshops by potential end-users from remote and rural areas, especially on a cross-border basis, was emphasised by several smaller business representatives.

The importance of recognition for the stakeholders was also emphasised as essential to ensure continuing engagement with and input to the programme. Frequent regular consultation serves to reinforce this process.

**The follow-up programmes to BioMara should be being planned now.**

Biomara Stakeholders pictured outside the Scottish Association for Marine Science.



## The Biomara Project Funding Bodies.



**European Union**  
European Regional  
Development Fund  
Investing in your future



**The Scottish  
Government**



**Highlands & Islands  
ENTERPRISE**



Department of  
**Enterprise, Trade  
and Investment**  
[www.detini.gov.uk](http://www.detini.gov.uk)



Department of Communications, Energy and Natural Resources  
Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádúrtha

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# BioMara

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