

# US-UK Biorefining Collaboration

During 2010, the BEACON project was awarded funding for travel from the international Funding Relations program (for Wales), with the assistance of the British Consulate in Houston and San Francisco. As a result members of the BEACON team attended a two-week trade mission to the US, visiting:

- The University of Georgia, Athens
- Natureworks LLC
- Idaho National Laboratory (INL)
- National Renewable Energy Laboratories , Golden Colorado

As a result of the trade mission, links were made with NREL, which led to the successful application of a BBSRC research grant. BEACON was awarded an international partnering award worth £30,659.04 to enable a US/UK biorefining collaboration between Aberystwyth and Bangor Universities with the National Renewable Energy Laboratories in Golden Colorado.

In July 2013, the award enabled two BEACON scientists specialising in Life Cycle Assessment to visit the NREL laboratories in Colorado. The two week placement gave the BEACON visitors an opportunity to work alongside NREL's Strategic Energy and Analysis Centre as they developed a key new global land use change model, BioLUC.

The model, which is just one of those developed by the NREL team, uses a systems dynamics approach to model land use change associated with different global biofuel production scenarios. The placement allowed the visitors to meet and exchange ideas with modellers working in different areas of NREL's sustainability analysis group and to explore opportunities for future collaborations.

In September 2014, Daniel Inman and Ethan Warner from NREL visited



Aberystwyth and Bangor Universities as part of the partnering award. During their 10-day visit to Wales, the NREL visitors spent three days at Bangor University where they visited some of the high tech equipment, including the CO<sub>2</sub> laboratory and the BioComposites centre. After spending three days at Bangor University, our

# BBSRC International Partnering Award

visitors travelled to Aberystwyth, where they delivered the first UK seminar on their newly developed BioLUC (Bio Land Use Change) and BSM (Biomass Scenario Model) system dynamics models, to a group of specialists in economic and environmental modelling from around the UK. Whilst at Aberystwyth Daniel and Ethan also had the opportunity to tour the

internationally recognised facilities at IBERS, including the Phenomic's Lab and the BEACON upscale facilities.

During their visit, they met with a range of staff from IBERS and the School of Management and Business (SMB) to hear about the range of projects and research currently being undertaken at Aberystwyth.



## Summary

### Project Lead:

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### Lead Institution:

Aberystwyth University

### Project Partner:

National Renewable Energy  
Laboratories, (NREL) Golden Colorado

### Sponsors:

BBSRC Research Grant,  
International Partnering Award

### Total Project Value:

£30,659.04

### Project Duration:

2 years  
April 2013 - March 2015