



Newsletter 6

November 2016

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Welcome

Welcome to the sixth newsletter of the Sêr Cymru National Research Network for Low Carbon, Energy and Environment (NRN-LCEE).

It has been a busy summer for the NRN-LCEE: Two more NRN-LCEE Clusters visited Brussels, using the opportunity to make new connections and explain their research to a variety of organisations based in Brussels. We held the second annual NRN-LCEE Summer Conference, with presentations by Fellows and posters by students - combined they gave a good overview of the significant progress the Clusters and Returning Fellows have made over the past year. The Network is clearly growing, in Wales and beyond, and it is encouraging to see so many collaborative developments taking place.

A wider influence is also evidenced by the public events organised by the NRN-LCEE. These included a conference on nature-based solutions for a low carbon society, a public lecture on public health and the natural environment and, for the second time, an expert panel at the Royal Welsh Show. You can read more about the various events in this newsletter.

This autumn, we are partnering with the Royal Society of Biology for a second time, for *Come Dine with the Future*, on 30 November at the National Museum of Wales in Cardiff. A panel of 6 experts will be challenged to present their menu of the future, and highlight the role of research and innovation in shaping the future availability and sustainability of our diets. You can sign up for this free event through the link below.

I hope you enjoy reading this newsletter and learning more about our recent research and activities.

Prof. David Thomas (d.thomas@bangor.ac.uk)

Director of the Sêr Cymru National Research Network for Low Carbon, Energy and Environment

COMING UP: Come Dine with the Future

Leading experts will discuss how our food might change in the not so distant future...

This free event will explore food and its sustainability by challenging experts from food-related sectors in research and industry, to present their menus of the future. Part of their challenge is to highlight how current research and innovation will shape the future availability and sustainable harvesting and/or production of our food.

Professor Achim Dobermann, Director of Rothamsted Research, will review each menu before the panel Chair, food journalist Diane Fresquez, invites the audience to take part in the discussion.

Panellists

- Chair - [Diane Fresquez](#)
- [Professor Katherine Denby](#) - University of York
- [Professor Les Firbank](#) - University of Leeds
- [Professor Helen Sang](#) - Roslin Institute
- [Dr Grant Stentiford](#) - Centre for Environment, Fisheries and Aquaculture Science
- [Tom Webster](#) - GrowUpUrban Farms & finalist of Radio 4's Future Food Award
- Food security expert menu reviewer: [Professor Achim Doberman](#) - Rothamsted Research

Where & When

30 November 2016, 17:00 - 20:00

National Museum of Wales, Cathay Park, Cardiff CF10 3NP

Booking

This event is free to attend and open to all but booking in advance is essential. [Click here to book your place through the RSB website.](#)

Upcoming Events:

[Come Dine with the Future](#)
30 November, National Museum of Wales, Cardiff

Funding Opportunities:
[NRN-LCEE Research Development Fund](#)

Open call until March 2017

Our Thematic Research Areas:

1. [Sustainable intensification](#)
2. [Low carbon energy pathways](#)
3. [Developing the bio economy – social, economic and technological modelling](#)
4. [Impacts and mitigation of climate change and human activities](#)

Introducing our Researchers – Chloe Robinson

(Reports on other NRN-LCEE Fellows and PhD students will be included in future newsletters)

Getting the community involved with scientific projects is a good way to enthuse people about their local environment and increase awareness about what they can do to help preserve it. As part of Chloe Robinson's PhD project, the [AquaWales](#) team at Swansea University have set up an initiative called the 'Crayfish Count'. Their aim is to encourage anglers and community groups who use the rivers to search for invasive signal crayfish (*Pacifastacus leniusculus*). [Click here to read more about Chloe's activities to engage the community with her project...](#)



Chloe speaking at SoapBox Science Swansea in September. (Photo: Ben Whittaker).

News

Third NRN-LCEE visit to Brussels

Researchers from the NRN-LCEE [Geo-Carb-Cymru](#) and [Resilcoast](#) Research Clusters visited Brussels in July. They were there to present their work to a wider audience as well as to learn about current and future European Union funding opportunities for geothermal energy, clean fossil fuels, wetland management and ecosystem services. [Read more...](#)

Low Carbon Cymru: Nature-based solutions for a Low Carbon Society

The NRN-LCEE partnered with Cynnal Cymru: Sustain Wales to organise a conference on nature-based solutions for a low carbon society. 'Low Carbon Cymru' took place in July at the Principality Stadium in Cardiff. An opportunity to network was followed by 6 speakers from the UK and Denmark. They addressed several nature-based solutions for challenges related to urban planning, reducing greenhouse gas emissions, chemistry, water management and marine energy. [Read more...](#)



Prof. Peter Pearson reflecting on the Low Carbon Cymru: Nature-based solutions conference.

Royal Welsh Show: 'Extreme Weather Events – a concern for farming?'

For the second year in a row, the NRN-LCEE organised a breakfast discussion panel at the Royal Welsh Show. The expert panel consisted of scientists from Aberystwyth and Bangor Universities and the Centre for Ecology & Hydrology. Farmers, academics, representatives from the National Farmers Union and Young Farmers Wales, Welsh Government and other organisations including Dŵr Cymru Welsh Water and LEAF were in the audience.



The expert panel at the Royal Welsh Show, 20 July. From left to right: Prof Mike Gooding, Prof Jack Cosby, Dr Hilary Ford, Prof Mike Humphreys, Prof Davey Jones, Prof Dave Chadwick, Dr Ros Dodd.

Our Clusters:



[AquaWales](#)



[Cleaner Cows](#)



[Climate-smart Grass](#)



[Geo Carb Cymru](#)



[Multi-Land](#)



[Plants & Architecture](#)



[Quotient](#)



[Resilcoast](#)

ERC Grant writing workshop

In September, the NRN-LCEE funded an ERC proposal writing workshop at Bangor University. There were attendees from Universities throughout Wales and the event has already supported the preparation of ERC submissions.

Annual NRN Summer Conference

In August, representatives from all of the eight NRN-LCEE Research Clusters and Returning Fellows joined the second Annual NRN-LCEE Summer Conference, at the University of South Wales in Pontypridd. There were presentations from 19 Research Fellows and 11 PhD students to an audience included academics, stakeholders and members of the NRN-LCEE [Strategic Advisory Group](#) (SAG). The SAG includes representatives from Welsh Government, Natural Resources Wales, Dŵr Cymru Welsh Water, the UK Met Office and NERC. [Read more in the NRN-LCEE guest blog on the UK Energy Research Centre \(UKERC\) website.](#)



Attendees of the NRN-LCEE Annual Summer Conference, 22-24 August in Pontypridd.

Research Development Fund

We are pleased to announce the following RDF award:

Future Estuaries Workshop

Dr. Matt Lewis, Dr. Peter Robins (Bangor University), Dr. Fai Fung (UK MetOffice), Prof. Jim Freer (Bristol University), Prof. Tom Coulthard (University of Hull).

Marine Centre Wales, Bangor University (date in early 2017 TBC).

This is the first award made specifically to support proposal development for RCUK and H2020 grant applications.

[RDF funding is available through an open call until 31 March 2017. Click here for further information.](#)

The following events funded through the RDF were held:

1. Sensors and Sensing Technologies Workshop

A workshop on Sensors and Sensing Technologies was held at Bangor University's [Henfaes Research Centre](#) in June. Here, the latest research, developments and applications of sensing technologies that promote sustainable agricultural production were shared. The event stimulated a dialogue between inventors, researchers and users of sensing technologies. The workshop was organised by Bangor, Swansea and Aberystwyth Universities and CEH Bangor. [Read more](#)

2. Conference: Future Energy Systems: from 'Smart Grids to Smart Living'

This event was held in July and formed the second day of the Low Carbon Cymru Conference, organised in partnership with Cynnal Cymru: Sustain Wales. The event was attended by speakers and delegates from across Wales and promoted networking between researchers and industry across energy and low carbon-related sectors.

3. Proposal Writing Workshops for Marie Skłodowska Curie Individual Fellowships

Two separate workshops were held at Cardiff and Bangor Universities with the aim of assisting potential candidates with their applications for the Horizon2020 Marie Skłodowska-Curie Individual Fellowships Fund.

4. IIGLOOS: Interactions at the interface of glaciology, oceanography and sea ice

A 3-day workshop in the Marine Centre Wales at Bangor University in September. The workshop included national and international speakers who focused on the interactions at the interfaces of glaciology, oceanography and sea ice. [Read more...](#)

Further details on RDF awards including reports on past events can be found on the [RDF website](#).

Inaugural Sêr Cymru Postgraduate Conference

In September, the National Research Network for Engineering hosted the Inaugural Sêr Cymru PhD Conference on behalf of all three National Research Networks: [Engineering](#), [Life Sciences](#) and [Low Carbon Energy and Environment](#). The event was held at Swansea University, in the Great Hall at the newly opened [Bay Campus](#).

The 1-day event provided opportunities for PhD students from all three NRNs to network, present their research, integrate and experience the wider NRN community. [Read more...](#)



Student discussions at the inaugural Sêr Cymru PhD Conference (Photo: L&TF).

Public Lecture Series

On 27 September, Dr Deborah Hemming, from the UK Met Office, gave a public lecture at Bangor University on *Public Health and the Natural Environment*. The lecture attracted 130 attendees and provided an insight into the role of science in monitoring impacts of the environment on public health, and how science can improve public health.

As for previous events, this lecture has been recorded and is available on [our website](#) and [YouTube channel](#). All our lectures are free to attend and open to the public.

Cluster Highlights – Conference attendance

The NRN-LCEE encourages its Fellows and PhD students to present at international conferences. Recently two of our Fellows received grants to participate in two events. They are:

Dr Ros Dodd, Climate-Smart Grass Fellow at Bangor University, presented at the [Organic Phosphorus Workshop 2016](#), Windermere, in September.

Dr Jordi Pagès, Resilcoast Fellow at Bangor University, presented at the [International Seagrass Biology Workshop 12](#), Nant Gwrtheyrn, North Wales, in October.

[Click here to read more about their experience.](#)

Other Fellows presented at, for example: The Engineering Mechanics Institute Conference, France; the World Renewable Energy Congress, Indonesia; the 6th International Conference on Polar and Alpine Microbiology, Czech Republic; the Geological Society of America Annual Meeting, USA; and Aquaculture Europe 2016, Edinburgh.

Come dine with the future

Explore food and its sustainability as a panel of six experts from research and industry are challenged to justify their menus for the future



Wednesday 30 November 2016 | 17:00 to 20:00
National Museum of Wales, Cardiff

Book free tickets: www.rsb.org.uk/FutureMenu



LOW CARBON, ENERGY & ENVIRONMENT
RESEARCH NETWORK WALES RHWYDWAITH YMCHWIL
CARBON ISEL, YNNI A'R AMGYLCHEDD CYMRU



Ariennir yn Rhannol gan
Lywodraeth Cymru
Part Funded by
Welsh Government

Cyngor Cyllido Addysg
Uwch Cymru
Higher Education Funding
Council for Wales

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