

Guidance for applications for Research Clusters in the Sêr Cymru National Research Network for Low Carbon, Energy and the Environment

Contents

I.	Overview of the programme	2
	a. Background	
	b. Network structure	
	c. Start/ End date	
	d. Funding criteria	
II.	NRN-LCEE Participants	4
	a. Original applicants	
	b. Partner organisations	
III.	Allowable costs	5
IV.	Cluster applications	5
	a. Who can apply	
	b. Eligible scientific fields	
	c. Cluster leaders	
V.	Researcher recruitment	6
VI.	Delivery and reporting of NRN-LCEE Output Targets	7
	a. Output Targets	
	b. Training	
	c. Reporting	
	d. Cluster management	
	e. Equal opportunities	
VII.	Application Process	9
	a. Timeline	
	b. Key points to be incorporated in the application	
	c. Proposals	
VIII.	Submissions	11
	Deadlines	
IX.	HPC Wales Access Information sheet	12
X.	NRW Collaboration possibilities	13

I. OVERVIEW OF THE PROGRAMME

The Welsh Government and Higher Education Council for Wales have committed to an ambitious initiative in their Sêr Cymru programme to support research excellence, by forming a National Research Network for Low Carbon, Energy and the Environment (NRN-LCEE). This Network is led by Aberystwyth and Bangor Universities under their Strategic Alliance, and was proposed by the following organisations: the Universities of Aberystwyth, Bangor, Cardiff, South Wales & Swansea, NERC Centre for Ecology and Hydrology, NERC British Geological Survey Wales, and the UK Met Office. Throughout these guidelines, these eight organisations will be referred to as the *original applicants*.

a. Background

The overarching aim of the NRN-LCEE is to create a major new initiative for research into the interactions between land, water, provision of food and energy production. This major societal issue has been identified in the Welsh Governments' *Science for Wales* as a crucial area of research with local, regional and global relevance:

"How to integrate the sustainable use of natural resources for the provisioning of energy, water and food with the delivery of other ecosystem services".

The vision for the Network is to make Wales a world-leader in a systems-based approach to natural resource management embedded in a social-ecological system. An additional aim is to increase the excellence and sustainability of research being conducted in Wales. A key deliverable of the NRN-LCEE will be a significant increase in the securing of research funding from sources including RCUK and the EU. The NRN-LCEE will examine the opportunities, cost and potential synergies of the delivery of different ecosystem services and addresses the following broad themes:

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 activity

Further detail on these and the Network can be found in the NRN-LCEE Summary document available at: <http://www.nrn-lcee.ac.uk>.

N.B. This call is specifically focused on terrestrial aspects of Theme 1: Sustainable Intensification.
(*Proposals that in addition address one or more of the other themes are welcomed*)

Sustainable land use and resilient agriculture in the face of a changing climate and an increasing population size, are major challenges, in particular in relation to balancing food security with other ecosystem services, multiple or conflicting land uses and the role of agriculture in reducing greenhouse gas emissions. The future is uncertain, and research is needed to develop adaptive, robust solutions for conflicts in future land use and management that takes this into account.

The remit of this call includes the following areas of research:

- Research that addresses the boundaries of viability, spatial-specificity, socio-economic and environmental impacts of different land uses, including agriculture and low carbon energy production; environmental services; urban and rural planning.
- Adaptive land management decisions in response to changing environments; impacts on crop productivity, landscape resilience and ecosystem services; increased agricultural production with

reduced inputs and waste; mechanisms that balance different ecosystem services and the social and economic benefits related to these.

- Integration of multifunctional goals into land use and evaluating functions across different scales, incorporating aspects of planning, sustainability, economy and policy.
- Crop and/or livestock production and environmental impacts of farming systems, integrating aspects of food safety, animal welfare, minimising greenhouse gas emissions and environmental impacts across the entire farm-consumer chain.
- Life cycle assessments incorporating aspects of transport, land-use and diversification, and exploring alternative pathways in order to provide objective case studies for policy and industry.
- Exploitation of new technologies, such as plant-animal-microbial 'omic' technologies to deliver new solutions for sustainable, adaptive and productive land use.

b. Network structure

The NRN-LCEE supports postdoctoral Fellowships and PhD studentships embedded within **ambitious NRN-LCEE Research Clusters** that will address key knowledge gaps in one or more of the main Network themes. A Cluster is a collaboration between a Cluster Leader (Principal Investigator) from one of the original applicants, and PIs and Co-Investigators from other partner organisations (which must include at least one of the other original applicants). By bringing together groups with different expertise into new collaborations, it is envisioned that ambitious inter/multidisciplinary teams will be established to deliver creative, excellent research pertinent to both national and international agendas. Ultimately the aim is to foster a sustainable network of researchers that attracts high quality research funding, produces more of the highest quality research outputs, and attracts high calibre researchers to Wales.

It is expected that partners will represent expertise from different sectors and research areas to align with the cross-disciplinary remit of the NRN-LCEE. Clusters will typically address new areas of research bridging the expertise of the different Cluster member organisations, and will not be a mere continuation of existing research activities. The inclusion of researchers from institutions other than the original applicants is encouraged, but please note the restrictions on funding below.

In this call the NRN-LCEE will provide funding for 4 research Clusters each comprising of two Postdoctoral Fellowships and one PhD studentship

Additionally, the NRN-LCEE will coordinate, and fund centrally, workshops, summer schools, visiting speakers and international conference participation for the Fellows and PhD students. The NRN-LCEE will provide additional support for STEM activities and dissemination of the research to non-specialist audiences.

A Research Cluster should be based on:

- Collaboration between **a minimum of two, but preferably more**, of the original applicants (the Universities of Aberystwyth, Bangor, Cardiff, South Wales & Swansea, CEH-Bangor, BGS-Wales and the UK Met Office).

- **A minimum of two Welsh partner organisations**

And

- **Two** 36 month Sêr Cymru postdoctoral Fellows.

And

- **One** 39-month Sêr Cymru PhD studentship.

In addition, a Cluster may comprise collaborating partner organisations that are not one of the original applicants. These may include other HEIs, research institutes, industry, business and NGO partners.

c. Start/End date

The NRN-LCEE is funded until 31 December 2018. The Fellowships will ideally start by September 1st 2015 but can start up to December 31st 2015. A formal *Cluster agreement* will have to be in place by the start date of the first Fellowship or studentship. All PhD studentships will be funded for 39 months. All Fellowships and studentships have to be completed by December 31st 2018. Details and the allowable costs eligible for NRN-LCEE funding are provided under Section III below.

d. Funding criteria

The proposals will be reviewed by a panel of experts and judged against the following main assessment criteria:

- Research excellence
- Fit of the proposed research within the 4 main themes of the NRN-LCEE programme
- Potential to leverage further high quality research funding
- Potential to build high quality, long-term sustainable research capacity
- Additional resources and infrastructure available to facilitate the Cluster
- Previous track record for research excellence of Cluster partners
- Cross-disciplinarity
- Collaboration across academic disciplines and with third parties such as industry, NGOs or charities.
- Pathways to impact and scheduled STEM activities
- Training opportunities for Fellows and PhDs
- Timeline and Risk

The primary criterion to be considered by the panel will be research excellence and applicants will need to demonstrate an excellent track record of securing external funding, as well as a clear strategy for submitting new research bids related to the NRN-LCEE during the funding period.

Proposals will have to demonstrate how the proposed research fits within the remit of this call, how the proposed research will fill knowledge gaps, and how by bringing together the proposed Cluster partners these aims will be met.

II. NRN-LCEE PARTICIPANTS

a. Original applicants

Original applicants of the NRN-LCEE are the following organisations: the Universities of Aberystwyth, Bangor, Cardiff, South Wales & Swansea, NERC-Centre for Ecology and Hydrology (CEH), NERC-British Geological Survey Wales (BGS Wales), and the UK Met Office. These organisations are signatories on the original NRN-LCEE proposal and will be a party to the Network Framework agreement. N.B. *Being based outside of Wales the UK Met Office will not be able to receive direct funding for Fellows or PhD students, but can host individuals as part of collaborative initiatives within Clusters.*

A minimum of two of the original applicants collaborate within any Cluster. The Cluster is responsible for the direct implementation of the joint training programme of the Cluster by recruiting, supervising, hosting and training researchers.

b. Partner organisations

Partner organisations in a Cluster can be Academic Institutions other than those listed under original applicants, NGOs or industry and business sector organisations. Partner organisations may complement the Clusters by providing additional expertise, services, funds and/ or research opportunities. Partner organisations other than the original applicants and other Welsh HEIs **cannot claim financial support from the Network or receive funding for Fellows or PhDs**. However, it is possible that partners host Fellows and/ or PhD students as visiting scientists or to provide training for part of the duration of a project. Partner organisations can be located in any country, as long as they contribute significantly to research activities and outputs of the Cluster. Proposals will have to demonstrate the direct benefit for the Welsh research capacity of each collaborating partner.

N.B. Partner organisations can participate in more than one proposal, however, individual researchers can only be a Principle Investigator or Co-Investigator on one application.

Researchers who were previously successful in being awarded funding for a Research Cluster by the NRN-LCEE cannot apply in this round.

III. ALLOWABLE COSTS

The NRN-LCEE will provide funds up to a maximum of £191K for each Fellow. It is anticipated that this money will be used to provide 36 months salary. Any remaining funds can be used for additional salary (e.g. to appoint at a higher grade) or for **consumable items** (NOT equipment, and not exceeding £2 K per item inc. VAT) **and T&S specific to the research activity of the Fellow only** (e.g. fieldwork expenses and contributions towards open access publishing costs directly attributable to Sêr Cymru research conducted within a Cluster).

The NRN-LCEE will fund PhD stipends using the rates announced by RCUK. Each PhD studentship will also include funding towards research costs in line with RCUK guidelines.

The NRN-LCEE will centrally fund up to a maximum of £1000 towards relocation costs of Fellows from outside of Wales on production of receipts (otherwise it becomes a taxable emolument).

The NRN-LCEE **will not fund** overhead costs, tuition fees, travel (apart from that mentioned above), (admin) support to the Clusters, costs related to filing patents or publishing (other than those directly related to the research of Fellows mentioned above), other IP costs, such as those relating to licensing agreements and the establishment of spin out companies, or any other costs associated with the research.

All funding will be deemed to be inclusive of VAT and other applicable taxes.

IV. CLUSTER APPLICATIONS

a. Who can apply

Applications are invited from collaborations between a minimum of two of the original applicants as listed under Section II. At least one of the partner organisations must be one of the Welsh HEIs, where the PhD student will be registered.

b. Eligible scientific fields

Applications may be made in any field of research, but the content of the proposal must fit within the call description (see Section I a). Proposals have to clearly identify how the proposed research fits within this remit. Interdisciplinary and cross-cutting Cluster proposals are encouraged, as are proposals that address policy and socio-economic aspects relevant to their research.

c. Cluster Leaders

Cluster Leaders are based at one of the original applicants of the NRN-LCEE. A Cluster Leader will be an experienced PI and a scientist with a track record of scientific excellence able to demonstrate success in securing substantial (RCUK and EU) funding, and successfully leading large research initiatives. The proposal has to be submitted by the Cluster Leader who will have the scientific responsibility for the Cluster, will liaise with the NRN-LCEE Director and manager and be responsible for the reporting to the NRN directorate.

V. RESEARCHER RECRUITMENT

Each successful Cluster will be responsible for the recruitment and appointment of eligible Fellows (36 months Fellowships) and PhD student (39 months studentships). In order to maximise exposure of the opportunity to attract excellent talent, Clusters will have to advertise each position internationally and for a period of at least 4 weeks. Clusters are expected to recruit Fellows who have already demonstrated research excellence and have the potential to become research leaders in the future.

Depending on the number of Clusters awarded, it is possible that the advertising of posts will be handled centrally by the NRN-LCEE in order to maximise exposure of the opportunities in the most cost-effective way.

Clusters will be expected to recruit experienced research Fellows that match the following criteria:

- Have a PhD in a field relevant to the Cluster's research.
- Not be awarded their first PhD less than 2 years and more than 8 years prior to the starting date of the position.¹
- Have published, confirmed accepted or in press, at least 5 papers in ISI accredited peer-reviewed journals by the starting date of the position. (Applicants with longer periods of postdoctoral experience will be expected to have proportionally higher numbers).

¹ The reference date for calculation of the eligibility period should be the date of the actual award according to the national rules in the country that the degree was awarded. However, the effective elapsed time since the award of the first PhD can be reduced under the following circumstances where they apply to the Fellow (not family members): For maternity, the effective elapsed time since the award of the first PhD will be considered reduced by 18 months for each child born after the PhD award. For paternity, the effective elapsed time since the award of the first PhD will be considered reduced by the actual amount of paternity leave taken for each child born after the PhD award. For long-term illness, clinical training or national service the effective elapsed time since the award of the first PhD will be considered reduced by the actual amount of leave taken for each incident which occurred after the PhD award. The elapsed time since the award of the first PhD should not in any case surpass 11 years and six months.

Each recruited researcher must:

For Fellows:

- Be employed 100% by one of the original applicants in Wales or on of the other Welsh HEIs associated with the Cluster (if relevant).
- Distribute their time and resources between Cluster partner organisations such that they clearly benefit the whole Cluster.

For PhD students:

- Be registered at one of the Welsh HEIs associated with the Cluster.
- Be jointly supervised by at least two supervisors from partner organisations collaborating in the Cluster (at least one from the original applicants).

VI. DELIVERY AND REPORTING OF NRN-LCEE TARGETS

a. Output Targets

The priority aim of the NRN-LCEE is to increase the volume of excellent, internationally recognised research in Wales, as demonstrated by an increase in successful RCUK and EU funding bids and an increase in the number of excellent research outputs. In terms of key performance indicators (KPIs), each successful Research Cluster will therefore have to agree to take responsibility to deliver allocated targets in the Cluster agreement prior to award of any funding (& report progress on these quarterly).

As an indication of the targets expected from a Cluster, it is anticipated that each Cluster will:

- Have an agreed number of original and collaborative research papers in ISI-accredited peer-reviewed journals (6 per Fellow, 2 per PhD) published or accepted for publication by December 31st 2018. These need to be submitted by researchers active in the Cluster and must clearly identify and acknowledge the role that the Sêr Cymru NRN-LCEE played in making the publication possible.
- Agree to submit at least 1 major grant proposal per year (≥£200K FEC, or equivalent) to RCUK or EU funding sources. **For Clusters with more than one Fellow, the Clusters must agree to submit an additional major grant proposal for each of the additional Fellows in the Cluster.** These need to be submitted by researchers active in the Cluster and must clearly identify and acknowledge the role of the Sêr Cymru NRN-LCEE in enabling the bid to be made.
- Have an agreed number of abstracts (3 per Fellow, 2 per PhD) accepted for presentation at international conferences by December 31st 2018. These need to be submitted by researchers active in the Cluster and must clearly identify and acknowledge the Sêr Cymru NRN-LCEE in enabling the work behind the abstract to take place.
- Engage annually with at least 2 stakeholders for advocating NRN-related opportunities, capacity building and engagement.
- Develop at least one demonstrable partnership with non-academic partners by December 31st 2018, which is likely to deliver applied research and/ or development targeted at delivering impact to company/ public body or third sector products or services.
- Keep track of and report on external collaborations and outreach activities and collect and record evidence of impact of NRN-LCEE research findings. These will be reported in quarterly reports to the NRN-LCEE management, at dates to be agreed once the Cluster is established.
- Design and deliver a schedule of STEM outreach events for non-specialist audiences.

b. Training

In addition, each Research Cluster will have to contribute to training in the following ways:

- It is anticipated that the PhD students will be fully enrolled into the doctoral training programmes in the host HEI.
- Contribute to centralised Sêr Cymru activities by potentially providing training facilities, potentially hosting events, and by being supportive to students and Fellows to attend relevant events across Wales and potentially internationally.
- Support Fellows and PhD students to attend conferences in order to reach an international audience and to provide career development and networking opportunities.
- Provide excellent supervision to Sêr Cymru PhD students with provision for career guidance, and ensure the meaningful exposure of each researcher to other disciplines and sectors represented in the network through visits, secondments and other training events.

c. Reporting

It is anticipated that each Cluster will:

- Supply quarterly claims and reports, as directed by the NRN-LCEE management, giving overview of the Cluster activities, including updates on progress made towards meeting the agreed Output Targets.
- Work jointly with the NRN-LCEE directorate to ensure the coherent and consistent engagement of Cluster researchers into the Network activities.
- Show evidence of engagement with key funding bodies in the UK and Europe in line with the NRN-LCEE objectives.
- Attend annual progress meetings with the NRN-LCEE Science Advisory Board.
- Record and report evidence of any Sêr Cymru NRN-LCEE fostered industrial collaboration successes and any commercial exploitation of IP.

d. Cluster management

Appointed Clusters will allocate responsibilities among Cluster partners and coordinate their activities to ensure that cooperation and communication are as open and efficient as possible, with the appropriate involvement of recruited researchers (for the organisation of meetings and identification of training needs, for example). **All partners collaborating in a Cluster will sign a *Cluster agreement with the NRN-LCEE*.** The Cluster agreement will be a legally binding agreement including, but not limited to, the employment status of the recruited researchers, IPR, liability and confidentiality agreements. Cluster Leaders should ensure all partners are aware of this obligation when submitting the proposal.

e. Equal opportunities

The NRN-LCEE is committed to providing support for and promoting equal opportunities in all its activities. Therefore, Clusters are expected to ensure that they avoid bias in the recruitment and treatment of researchers and promote equal access for all to the education, training and employment opportunities regardless of gender, disability, age, racial or ethnic origin, sexual orientation, religion or belief, in accordance with this policy.

The NRN-LCEE strongly supports the Athena SWAN Charter for good employment practice for women working in higher education and research. All U.K. partner organisations in the NRN-LCEE are therefore anticipated to either have, or demonstrably be in the process of applying for, the Athena SWAN Bronze Award or demonstrate an equivalent commitment.

VII. APPLICATION PROCESS

a. Timeline

- Full proposals for a Research Cluster should be submitted to the NRN-LCEE office **as a single pdf** by email to nrn-lcee@bangor.ac.uk by **Wednesday 14 January 2015 (12:00 hrs)**.
- Proposals will be evaluated by an assessment panel and the panel will make its final selection by the end of May 2015. Successful proposals will be notified as soon as possible thereafter.
- Signing of Cluster agreements, advertisement and appointment of Fellows and PhD students by the successful Clusters takes place from June-October 2015. The Fellows and PhD students have to be in post by 30 September (PhD students) and 31 December (Fellows) 2015 respectively to allow appointments for the full 39 or 36 months.

b. Key points to be incorporated in the application

- **A clear definition of the research questions that the Cluster will address. N.B. This should clearly outline the gaps in current research that make the question one worthy of support, and why the questions are important in relation to national and international science agendas.**
- **Clearly identify how the proposed research fits within the remit of this call.**
- **How the proposed consortium of Cluster partners is qualified to address the proposed research questions. The purpose of the Clusters is not to simply support established research, but the invitation is to bring together successful groups to address new research questions. A high priority will be given to proposals that identify research crossing traditional research boundaries/ subject areas and address policy and socio-economic aspects of their research.**
- **How the establishment of the Cluster will lead to increased funding bids to RCUK and EU sources, both during the lifetime of the NRN funding and subsequently. In particular it is hoped that the NRN funded Research Clusters will foster research that will cross the traditional boundaries between research funded by UK Research Councils.**
- **The anticipated research deliverables. Research excellence is the highest priority, and the Research Clusters will be expected to produce outputs that are of the highest quality.**
- **Demonstrate the direct benefit for Welsh research capacity.**
- **A clear indication of STEM activities and wider dissemination activities planned for the Cluster (N.B. 5K will be made available centrally to each Cluster to facilitate these activities).**

c. Proposals

The proposal will be submitted by the Cluster Leader to nrn-lcee@bangor.ac.uk, and should include the following 6 sections combined as a **single PDF document**:

- 1) **Summary** of the aims, planned activities and anticipated deliverables written for non-specialists (*Maximum 500 words; Font minimum 12; Page margins minimum 2cm*)
- 2) **Applicants** (*Maximum 1 single-sided page per partner organisation; Font minimum 12; Page margins minimum 2 cm*)
 - a. Details of PI and CoIs for the different partner organisations; summary and findings of recent work by PI and CoIs that has relevance to the proposed Cluster research.
 - b. Outline of specific expertise available at each partner organisation; benefit of the combined expertise of the partner organisations for the proposed research (*i.e. this should highlight how the proposed research builds on existing research excellence of the individual partners*).
- 3) **Case for Support** (*Maximum 10 single-sided pages; Font minimum 12; Page margins minimum 2cm*).
The case for support must include:
 - a. The science base for the Research Cluster. This must fully explain the science to be addressed and how the Cluster will meet the science targets and deliverables.
The text should be structured into the following sections:
 1. Rationale underlying the proposal
 2. Knowledge gaps covered by the research and summary of the science to be addressed
 3. Fit to theme: specific objectives and scientific questions and how these relate to the call remit
 4. Methods and analyses. Evidence of access to the required facilities and data.
 5. Risks and risk mitigation
 6. Expected outcomes including clear milestones, both academic and wider societal impacts
 - b. A Gantt chart of activities and deliverables
 - c. Proposed time schedule for the science activities and deliverables.
 - d. Justification for the number of Research Fellows and PhDs requested and how these positions will enable the Cluster to function.
 - e. Leverage for Cluster activities provided by partner organisations. Details of additional resources, associated funding, other research activities and infrastructure available to facilitate the Cluster.
 - f. Costings for the research Cluster (detailing salary costs and research costs for the Fellows and the PhD). **This should be done on the costings template available on the NRN-LCEE website.** In the proposal text you should only provide the justification of costings and elaborate if item-lines other than salary are included.
 - g. Details on management structure of the proposed Cluster.
 - h. Details of how the Cluster anticipates to attract future funding, including a preliminary schedule of funding bids. N.B. The deliverables mentioned under VI a above.
 - i. 5 Suggestions for referees for the proposal. These should be scientists with relevant expertise from outside Wales (UK and Europe), with whom the PI and CoIs have not actively collaborated within the past five years.
 - j. The case should cover the points raised above in section VII b "Key points to be addressed in the application".

- 4) **A proposed strategy for pathways to impact and proposed schedule of STEM activities** (*Maximum 2 single-sided pages; Font minimum 12; Page margins minimum 2cm*). This section should including the following:
 - a. Identification of those who may benefit or make use of the research.
 - b. How they may benefit or make use of the research.
 - c. What would be done to ensure they benefit from the research.
 - d. Proposed strategy and estimated costs for STEM activities and wider audience engagement.
- 5) **CVs, publications (up to 20 most relevant publications over the last 5 years), and previous grant capture records** of the PI and CoIs from each of the partner organisations included in the Cluster proposal. (*Maximum 2 single-sided pages per CV*).
- 6) **Letters of support** from any co-funders and partner organisations involved in the research but who are not one of the original applicants. This should clearly state what facilities, infrastructure, leverage and opportunities the partner organisation is going to bring to the Cluster.

The completed costings template should be included with the submission as a separate excel file.

VIII. SUBMISSIONS

The proposal should be submitted to the NRN-LCEE Office (nrn-lcee@bangor.ac.uk) by the Cluster Leader, who will be the main contact for the NRN-LCEE both during the application process and subsequently should the proposal be successful.

All applications need to be subjected to the normal review and costings procedures within their host institutions before confirmation of funding.

Deadline

Full proposals submission deadline: 14 January, 12:00 hrs.

Questions regarding the Research Clusters and the application process should be addressed to the NRN-LCEE Director, Prof David N. Thomas (d.thomas@bangor.ac.uk) or the NRN-LCEE project manager, Dr Serinde van Wijk (s.j.vanwijk@bangor.ac.uk).

N.B. These guidelines are for information only and may be subject to change.

Researchers in Clusters that require HPC facilities are encouraged to contact HPC Wales to investigate the possibilities for collaboration as part of the Clusters.

High Performance Computing (HPC) Wales is a company formed between the Universities and the private sector in Wales, and provides integrated supercomputing services for businesses and researchers across Wales and beyond, often at fully discounted rates. Host to the UK's largest distributed supercomputing network, HPC Wales offers access to the most advanced computing technology in the world, along with the high level training and customised support to exploit it effectively.

Services

- Access to HPC hardware, software, training & specialist support
- Technical resource to help support funding / grant proposals
- Research commercialisation and links to industrial partners
- Facilitate HPC deployment for the scientific user community

Examples

- Modelling and simulation of genes, proteins, evolution & processes
- Modelling and simulating ocean and weather patterns
- Data mining for classifying multiple trends in large environmental data sets

Cost

- Fully discounted trial accounts available to all researchers
- Fully discounted access for researchers collaborating/wishing to collaborate with an enterprise (large or small) in Convergence Wales – assistance provided if required
- Free training and workshops for researchers working or residing in Convergence Wales

Contact

- Laura Redfern – HPC Wales Outreach (Energy & Environment)
- Email: laura.redfern@hpcwales.co.uk
- Tel: 07850771287





**Cyfoeth
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Cymru
Natural
Resources
Wales**

Researchers developing NRN Clusters that may benefit from collaboration with Natural Resources Wales are encouraged to make contact to investigate the collaborative possibilities.

Natural Resources Wales (NRW) brings together the work of the Countryside Council for Wales, Environment Agency Wales and Forestry Commission Wales, as well as some functions of Welsh Government. Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future. We are the principal adviser to the Welsh Government on the environment, enabling the sustainable development of Wales' natural resources for the benefit of people, the economy and wildlife.

Potential NRW contributions

We have the following range of potential contributions that could be available to appropriate Clusters addressing research areas relevant to our remit.

- A large number of sites across Wales covering a wide range of ecosystems and habitats that might be used for research, including the extensive Forest Estate, nature conservation and geological sites.
- Office and potentially some field site accommodation for use by researchers.
- A wide array of expert staff with specialist knowledge of Wales, covering ecosystems, species, water resources, forestry, etc.
- A fully accredited laboratory for analysis of water and air samples in Llanelli.
- An intensively monitored terrestrial and freshwater Environmental Change Network site on Snowdon and a freshwater site on the River Wye.
- Extensive long-term monitoring data sets with an array of environmental variables for terrestrial, freshwater and marine ecosystems, ranging from water quality and quantity sampling to habitat and species surveys.
- Through our catchment and site management work, good stakeholder partnerships across much of Wales.
- A potential to help identify and facilitate pathways to impact upon environmental policy and delivery through our work with Welsh Government and UK/EU organisations.
- An Information Service linked to our library in Bangor providing a potential point of access to data and reports.

Clearly not all options are applicable to all Clusters and we would of course need to define the scope of our contribution as part of the proposal.

Contact

If you are interested in discussing potential collaboration please contact:

Dr Clive Walmsley – Environmental Impacts Advisor

clive.walmsley@cyfoethnaturiolcymru.gov.uk

Tel: 01248 387109 or 07720 428651