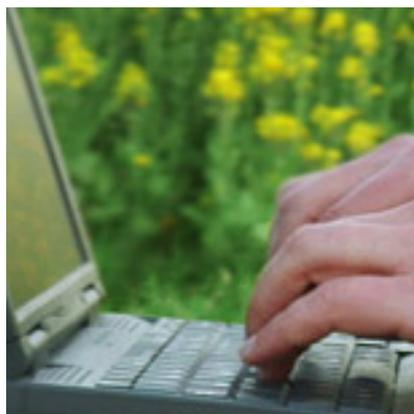


Relu Newsletter

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1. New centre on evaluation of UK energy, water, environment and food policies

A national research centre, initiated by a consortium of leading UK bodies, will be developing new ways to measure the effectiveness of domestic policies on energy, water, environment and food (the 'nexus'), and how they affect wider society. Led from the University of Surrey, the centre will also involve Cranfield University, Durham University, Newcastle University, University of Warwick, University of York and Risk Solutions. Additional international co-investigators will be from the European Academy of Technology and Innovation Assessment and Arizona State University. [CECAN](#) has been backed by £2.45 million of funding provided by the Economic and Social Research Council and the Natural Environment Research Council in collaboration with the Department for Environment, Food and Rural Affairs, the Department of Energy and Climate Change, the Environment Agency, and the Food Standards Agency. For more information contact Nigel Gilbert email n.gilbert@surrey.ac.uk.

2. New dynamic land use planning tool

Ground-breaking software launched by the [Sustainable Intensification Platform](#) aims to help policy makers and local decision-makers prioritise identified land-use practices which will maximise the economic outputs and environmental and social benefits across areas of land (known as sustainable intensification). The web-based Dynamic Typology Tool consists of a database of over 90 pre-existing maps, which show the diversity of farm systems and the opportunity for improvement that can be delivered by sustainable intensification practices. The user can adjust the weighting of these maps in line with national or local priorities. This produces a map of the local opportunity for sustainable intensification in comparison with the overall national picture. The tool, created by experts at ADAS, Centre for Ecology and Hydrology and Fera, has been demonstrated at a number of stakeholder workshops. Feedback will be used to refine the tool before it will become available on the web to land-use planners and decision-makers. For more information, please contact Gavin Huggett, SIP2 Project Manager (e: SIP2@exeter.ac.uk) and follow the project on Twitter [@SIPResearch](#)

3. LWEC PPN subseries focuses on pollinator threats and needs

Pollinators are in decline and the causes and possible remedies are very complex. Three new Policy and Practice Notes in the Living With Environmental Change Insect Pollinators Initiative subseries look at specific aspects of the problem. Land Use change: opportunities for pollinator conservation and risks for pollinator losses; Managing the landscape to optimise pollinator nutrition; and

Managing farmland for pollinating insects are all available on the [LWEC web page](#), along with all the notes in the whole LWEC series.

4. Participology helps everyone play the land management game

Alister Scott and Claudia Carter from Birmingham City University organised and facilitated the final workshop for the ESRC-funded Knowledge Exchange project 'Maximising the Impact of Games as Effective Knowledge Exchange Tools: The Rufopoly Resource Kit'. The event was live-streamed with global participants. Speakers from countries including Australia, USA, Belgium and the UK, shared experience on developing and testing this flexible and bespoke participatory tool that can be tailored for use in many land management, planning, and community or staff development processes. PARTICIPOLOGY uses a board-game format where the throw of dice challenges participants to address key issues and builds on Rufopoly which was developed as part of the Relu Managing Environmental Change at the Rural Urban Fringe project. PARTICIPOLOGY was designed in partnership with decision-makers, policy-makers and practitioners who enabled the creation of [a new online resource](#).

5. Understanding ecosystem stocks and tipping points

The latest [£1.1 million funding call under the Valuing Nature Programme](#) is now open to support interdisciplinary research projects that, through a better understanding of the complexities of the UK natural environment in valuation analyses, will seek to improve our understanding of the links between ecosystem stocks, ecosystem service flows and benefits that are delivered as a result. The call closes on 5 May 2016 and potential applicants can use the [Valuing Nature Offers Platform](#) to find partners, case studies or datasets.

6. Relu research continues to influence policy and practice

Relu research continues to support policymaking and practice. Work carried out by the Integrated Management of Floodplains project has supported the impact assessment by Defra/Environment Agency of the effects on agriculture of flooding after the 2007 floods and more recently the [2013/14 events](#). The Relu work and these impact assessments have produced methods and data to support the Environment Agency's Flood Cost Calculator that provide rapid estimates of flood event costs and have supported [guidance on flood risk management appraisal](#). The Scottish Government has also made use of the research, which has supported the [assessment of the contribution of rural land management](#) to natural flood risk management.

7. New centre for crop health and protection

A new [Centre for Crop Health and Protection \(CHAP\)](#) has been announced under the government's Agri-Tech strategy, launched in 2013 to ensure that its investment in agriculture delivers material benefits for society and the economy in the UK and overseas. CHAP's consortium partners include Bayer CropScience, Farmcare, Frontier Agriculture, Dow AgroSciences, Tesco, Stockbridge Technology and Unilever, alongside AHDB, CABI, Cranfield University, FERA Science Ltd, Newcastle University, ADAS, The Met Office, Warwick University, Campden BRI and Rothamsted Research. CHAP will enable these organisations, alongside retailers, processors, agronomists and manufacturers, to share resources, optimise return on research and development costs, reduce waste and accelerate the registration process for new products.

8. Making agri environment schemes more effective

Improved accessibility to large spatial datasets and digital mapping tools provides new opportunities to make agri environment schemes more spatially targeted, maximising outcomes and improving value for money. LWEC's policy and practice note No 28 "Spatial targeting brings new opportunities for agri environment schemes" outlines the position and makes recommendations for the future. It may be downloaded from the [LWEC Policy and Practice Note web page](#).

9. Sky's the limit for CIEL

[A new £70 million innovation centre](#) will bring together the food industry and academic researchers from a range of institutions to transform the productivity of the UK livestock industry. [The Centre of Innovation Excellence in Livestock \(CIELivestock\)](#) has been allocated £31.7 million funding from the Government's Department for Business Innovation and Skills to set up state-of-the-art facilities across the UK, providing the livestock industry with world-beating access to research. The universities of Edinburgh, Leeds, Nottingham, Newcastle, Aberystwyth, Bristol, Queens (Belfast) and Harper Adams are receiving investment from CIEL, as well as the UK's leading research institutes including Rothamsted Research, the Agri-Food and Biosciences Institute Northern Ireland, Scotland's Rural College, Fera and Duchy College. CIELivestock has been industry led from inception by the Agriculture and Horticulture Development Board, with private sector companies across the livestock and food industries being key to its development.

10. Sustainable food isn't only about new technology – new N8 professor

A newly-appointed professor in socio technical innovation will investigate how food production can be increased sustainably, by using the latest technology, while also caring for the environment. [Professor Mark Reed's new post is part of the N8 Agri-Food Resilience Programme](#) which is funded by the Higher Education Funding Council for England catalyst fund and by the N8 universities – the eight key research intensive universities across the North of England. This interdisciplinary research programme combines world-leading crop and livestock research with extensive expertise in social sciences in a single research initiative. The programme is focused on ensuring the stability and integrity of national and global agri-food supply chains in the face of environmental and socioeconomic challenges. You can contact Mark by emailing mark.reed@n8agrifood.ac.uk.

11. LEEP forward for land use policy

A new Land, Environment, Economics and Policy Institute (LEEP) aims to develop knowledge and understanding to inform governments, businesses and communities about how land and the environment are managed and used; the policies that affect this; the impact upon people, and how policy should be better designed, appraised and evaluated. LEEP combines world-leading expertise from the Centre for Rural Policy Research and the Centre for Social and Economic Research on the Global Environment. [Read more on the LEEP website](#) and follow them on twitter [@Leep_Institute](#)

12. When scale does matter

Darren Grafius and colleagues in the '[Urban BESS](#)' (Biodiversity and Ecosystem Service Sustainability) project have sounded a warning about the [importance of selecting model data](#) appropriate to the scale of enquiry. They used models from a system called '[InVEST](#)' (Integrated Valuation of Environmental Services and Tradeoffs), produced by the Natural Capital Project and Stanford University, to model potential carbon storage, soil erosion, and pollination in Milton Keynes, Bedford, and Luton and which run on digital maps that can be supplied at different spatial scales. They found that the scale of these maps can make a considerable difference to what the model results show. Scale sensitivities depend on the type of service being modelled; stock estimates (e.g. carbon storage) are most sensitive to aggregation across scales, dynamic flow models (e.g. sediment erosion) are most sensitive to spatial resolution, and ecological process models involving both stocks and dynamics (e.g. pollination) are sensitive to both.

13. Macronutrients Cycles Programme presents results

The NERC [Macronutrient Cycles Programme](http://macronutrient-cycles.ouce.ox.ac.uk/) will be holding a science meeting at the Royal Society of London on 15 and 16 June 2016 to present its results and address key issues for policymakers and other stakeholders. The programme has involved a £10.55 million investment in research in 11 Universities and 4 Research Institutes investigating how we can quantify the scales and spatial/temporal variation of nitrogen and phosphorus fluxes and cycles under a changing climate and perturbed carbon cycle. See <http://macronutrient-cycles.ouce.ox.ac.uk/> for background information about the programme. Places are limited but you [can register on line](#) or contact paul.whitehead@ouce.ox.ac.uk if you have any queries.

14. Battle to save the ash

Researchers at the [University of York](#) have led a pioneering study which opens up a new front in the battle against a disease affecting ash trees across Europe. The research identified genetic markers to predict whether specific trees in populations of ash will succumb to the disease or are able to tolerate and survive a fungal pathogen that is causing ash dieback. The technology could help to maintain the ash tree as part of the UK landscape through pre-screening of individual tree seedlings to identify non disease-susceptible individuals before they are planted out.

15. Connecting with nature is good for mental health says report

A study published by Natural England shows that taking part in nature-based activities helps people who are suffering from mental ill-health and can contribute to a reduction in levels of anxiety, stress, and depression. The report [A review of nature-based interventions for mental health care](#) suggests making greater use of 'green care' to help people suffering from mental ill-health. The new review was commissioned by Natural England from the [University of Essex](#) and [Mind](#), the UK's leading mental health charity.

16. What makes an animal healthy?

Improving animal health is imperative to managing food security, environmental change, and farm business objectives. It also has important implications for human health. However, different people hold different views on what it means for an animal to be healthy. The Centre for Rural Economy's [Landbridge](#) network and Kings College London organised a workshop funded by the Wellcome Trust to review stakeholders' understandings of livestock health within different farming systems, and to identify the key people involved and the barriers that need to be overcome. The findings will feed into a programme of research to develop a more integrated approach to livestock health, welfare and

productivity. For more information contact Abigail Woods
abigail.woods@kcl.ac.uk .

17. Celebrating 125 years of agricultural research and teaching

The [School of Agriculture, Food and Rural Development](#) at Newcastle University aims to push forward innovative practice and cutting edge technology, but in 2016 they will also be looking back. This year they celebrate 125 years of agricultural research and teaching. The School will be taking the opportunity to consider this history and its role in shaping agriculture and food production today. A series of high profile events and seminars throughout the coming year will provide a focus for celebration and reflection.

18. UK Research Councils publish strategic plan

The UK Research Councils has published its [Strategic Priorities and Spending Plans](#) for 2016 to 2020 on the RCUK website, in support of their collective ambition to ensure that the UK is the best place in the world to do research, to innovate and to grow business.

19. New round of BBSRC Enterprise Fellowships

BBSRC has funded two new Enterprise Fellowships to boost the development of new businesses from research investments. The programme, delivered by the Royal Society of Edinburgh with support from BBSRC, Scottish Enterprise and STFC, allows fellows to focus solely on developing their business. They receive one year's salary, expert business training, business development funding and access to mentors from a pool of RSE business fellows and other successful individuals in the commercial community. The programme has helped fellows to take up key posts in some of the UK's exciting new start-up companies. Many of these companies have shown high growth potential and helped academics to further develop the impact of BBSRC-funded research. [The next call for applications is now open](#), closing on 4 May 2016.

Produced by the Rural Economy and Land Use Network in association with Landbridge

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