



## Newsletter July 2021

### Who Are We?

**The Carbon Recycling Network** is one of 6 BBSRC NIBB Phase II networks. The network will promote those aspects of carbon recycling that support the re-use and exploitation of single carbon (C1) greenhouse gases, CO, CO<sub>2</sub> and CH<sub>4</sub>. The focus is on gas fermentation, primarily using chemoautotrophs, and seeks to explore the potential of anaerobic digestion (AD) as a gas fermentation feedstock generator.

**The Carbon Recycling Network** provides a cross-sector forum with the goals to foster and enhance collaboration between industry and academia; develop skills and expertise; share best practice; define common research priorities; and target funding opportunities in this area. The management board is currently 13 strong, with Professor Nigel Minton (University of Nottingham) as PI and has 5 Cols.

### Progress

Our membership continues to grow and currently stands at 576 with 112 from industry, 71 Europe, 52 International including: USA, India, Brazil & S Korea. We have 708 followers on Twitter. Over the past year we have completed; An online RRI

### Recent

POC

### Funding

Awards

### Awards

2021

#### *'Towards Net Zero with waste gas utilization'*

Reaching net-zero carbon emissions by 2050 will require extensive technological advances across the UK. The challenge can be assisted, by investment into the utilisation of waste gases by chemoautotrophic bacteria. This Carbon Recycling Network POC call, aims to support projects that can develop processes for the re-use and exploitation of single carbon greenhouse gases and will contribute to this UK challenge.

**Call closed on 28 February 2021**

Our **congratulations and ~ £50K** each go to:

- **Christopher Humphreys** - University of Nottingham
- **Ying Zhang** - University of Nottingham
- **Rajesh Bommareddy** - Northumbria University

Workshop, an International Online Conference, 2 Industry exhibitions and 3 outreach activities.



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## Network News

### **Biomass Policy Fellow - Dr Joanna Sparks**

**Dr Joanna Sparks** recently took up the position of Biomass Policy Fellow with the Carbon Recycling Network, the Supergen Bioenergy Hub, the Biomass Biorefinery Network, and the High Value Biorenewables Network. As the Policy Fellow Joanna will provide an important connection between academic researchers and government policy makers in the area. Her goal is to increase policy engagement by network and to harness the expertise of our members to have a real impact on policy. To facilitate this she is keen to learn more about the work being done by network members. Keep an eye out for policy events which we will be running to get involved. You can connect with Joanna on LinkedIn [here](#). We look forward to working with Joanna over the next 18 months.



Dr Joanna Sparks

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## **The Carbon Recycling Network response to the biomass strategy call for evidence**

The Carbon Recycling Network contributed to a joint response to the recent Department for Business Energy and Industrial Strategy (BEIS) Call for Evidence on the role of biomass in achieving net zero. The evidence submission was developed in collaboration with the [Supergen Bioenergy Hub](#), [Biomass Biorefinery Network](#), and the [High Value Biorenewables Network](#).

The joint evidence submission considered the supply and use of biomass and highlighted the essential role we believe biomass will play in the transition to net zero, through bioenergy systems, the production of carbon-based chemicals and materials, and as a feedstock in negative emission technologies. The response touched on the benefits of industrial biotechnology for biomass utilisation and the potential of C1 gases (for example from biomass gasification or fermentation) as manufacturing feedstocks, as well as emphasising need for further investment in research, innovation, and scale up facilities.

The responses to the BEIS Call for Evidence will support the development of the upcoming UK Biomass Strategy. It is crucial that this strategy lays out a pathway for the sustainable production and use of biomass and positions the UK as a global leader in this area (a sentiment which echoes that expressed by the CCC in their latest progress report) and to enable this, we must harness the academic expertise within the research community. To this end, the evidence submission was collated by the newly appointed Biomass Policy Fellow, [Joanna Sparks](#), who is working with the Carbon Recycling Network, the Supergen Bioenergy Hub, the Biomass Biorefinery Network, and the High Value Biorenewables Network. Joanna will provide an important connection with government policy makers, and her position provides a unique opportunity to bring together the wealth of expertise within our community and present it in a consolidated way. We believe that this collaborative approach will afford impactful policy engagement, as well as developing capacity and capability for future policy engagement by the research community.

Joanna will be continuing to engage with development of the Biomass Strategy over the coming months, so keep an eye out for further opportunities to get involved in this work!

The submission can be found [here](#)



A joint response to the  
Department of Business,  
Energy and Industrial  
Strategy Call for Evidence  
on The Role of Biomass in  
Achieving Net Zero

## Upcoming Funding Calls

### Industrial Biotechnology (IB) Funding round-up:

KTN's IB team have compiled a list of the latest funding calls of relevance to Industrial Biotechnology:

<https://ktn-uk.co.uk/news/industrial-biotechnology-funding-round-up>

<https://ktn-uk.co.uk/news/chemicals-funding-round-up>

### IBioIC Funding Calls:

[Scale Up Accelerator Project Call for SMEs](#)

Open call

Up to £15k at a maximum 50% intervention

### UKRI Funding Opportunities:

<https://www.ukri.org/opportunity/>

### Entrepreneur in Residence

The Royal Society Entrepreneur in Residence (EiR) scheme aims to increase the knowledge and awareness in UK universities of cutting edge industrial science, research and innovation.

Opening on **25 June 2021** and closing on **24 September 2021**

[More Information](#)

## Student opportunity relaunched as Climate Change Thought Leadership Award

An industry award programme for students has been relaunched with a new focus on rewarding innovative approaches and research into climate change solutions. The Climate Change Thought Leadership Award run by Privilege Finance, specialist funder of climate change reduction projects, is now open to applications from undergraduate, masters, or PhD students at UK universities. A £2,000 prize fund has been made available alongside a programme of mentoring.

**Closing date: 3 September 2021**

[More Information](#)

## FUNDING FROM OTHER NIBBs

### HVB:

[Business Interaction Voucher](#) - Closes:11:00, 27th July 2021

[Training Fund](#): Always open

### E3B:

[Open funding call for Covid-19 projects](#) (PoC or BIV): Open call

[Early Career Researcher Fellowship Planning Visit Fund](#): Open call

### BBNet:

[Business Interaction Voucher](#)

Open call

Up to £10k available to encourage and support collaboration between academics and industrialists within the BBSRC NIBB framework.

## Training Courses:

### National Horizons Centre

At the National Horizons Centre, we offer a range of courses for continuing professional development (CPD) in biosciences, informed by the latest research and delivered by academic experts in a world-class research environment. All of our courses are delivered from the NHC's state-of-the-art facilities. We provide theoretical knowledge and hands-on experience with cutting-edge technologies, helping to create an industry-ready workforce. We are a National Training Centre for Advanced Therapies and have specialist expertise in providing the technical skills required for biopharma and vaccine manufacturing.

[More Information](#)

### Job Vacancies:

#### Portfolio Manager

Bioscience for Renewable Resources and Clean Growth - BBSRC

[More Information](#)

#### National Horizons Centre

Professor/Associate Professor/Senior Lecturer of Gene Therapy

Professor/Associate Professor/Senior Lecturer of Proteomics

Professor/Associate Professor/Senior Lecturer of Biomanufacturing

[More information](#)

## Upcoming Events

**The fuel and energy research forum's biennial 1st feria conference**  
06/09/2021 - 08/09/2021

Rescheduling of the Fuel and Energy Research Forum's biennial 1st FERIA Conference, the European Conference on Fuel and Energy Research and its Applications.

[Register](#) [Here](#)

**1st BBNet Conference**  
13-15/10/2021

We are happy to announce that the 1st BBNet Conference will take place on the 13th, 14th and 15th October 2021 (government guidelines permitting). We are hoping to make this a stimulating conference with the participation of policy makers, industrialists and academics.

[More Information](#)

**17th Carbon Dioxide Utilisation Summit**  
27/10/2021 - 28/10/2021

The two day event will also focus on the diverse uses of CO<sub>2</sub> – chemicals, e-fuels, mineralisation and other market potential, through case studies. The conference participants will be able to take advantage of the different panel discussions and Q&A to gain a deeper understanding of the projects presented and interact

both with the speakers and their fellow attendees.

[More Information](#)

## Outreach Activities

### Carbon Recycling Member gives a talk at U3A

The [U3A](#) (University of the Third Age) is an international movement whose aims are the education and stimulation of mainly retired members of the community—those in their third 'age' of life. There is no universally accepted model for the U3A. Its original conception in France as an extramural university activity was significantly modified in the United Kingdom where it was recognized that most people of retirement age have something to contribute and the emphasis has been on sharing, without formal educational links.

*“On the 16<sup>th</sup> of June I had the pleasure to introduce the topics of Bioenergy, biofuels and Carbon Capture and Storage to an avid audience from the University of the Third Age (U3A) of Edwalton and Gamston. Speaking at an U3A is always an extremely rewarding and inspiring experience: it is rare to find a public more invested and more curious than senior citizens brought together by their desire to learn. I was happily surprised that they specifically requested talk on Bioenergy, as it is a concept of capital importance which is often used in the context of sustainability and Net-zero emissions targets, but very rarely explained properly. Improving the literacy of the U3A group of Edwalton and Gamston, Nottinghamshire in these very important topics felt like a privilege. Indeed, I hope that my explanations will help them feel more confident in their consumption choices and their voting preferences. Preparing this talk gave me the opportunity to update my knowledge of global and national energy consumption patterns, and of the UK strategy to reach net-zero CO<sub>2</sub> emissions. Even though it was done by videoconference, it also constituted a welcome human interaction in these times of social distancing, as well as a convenient break from writing up my thesis. All in all: amazing experience, 10/10 would do again.”*

**François Seys, PhD student & Carbon Recycling Network Member**  
**Synthetic Biology Research Centre – Nottingham**

### A bit about me first



**Francois Seys**  
**Belgian, 28**

**PhD student at University of Nottingham**  
**Biodiscovery Institute**

**Genetic engineering tools**  
**Passion for sustainability!**

## Other News

### Royce Relaunches Equipment Access Scheme

The [Henry Royce Institute](#) has relaunched its equipment access schemes for both [researchers](#) and [students](#) based at UK universities to support access to state-of-the-art materials science and engineering equipment.

Royce's equipment access schemes provide funding to utilise equipment and learn new techniques to support a single package of work for research activity.

Applicants can identify a specific piece of equipment they require or discuss what techniques might work best for their research with our experienced Research and Facilities Managers.

#### **What equipment does Royce have?**

As the national institute for advanced materials, Royce has an extensive catalogue of equipment including facilities to make, test and characterise materials. Visit the [Royce Equipment Catalogue](#) to find out more.

#### **Eligibility**

The schemes are open to any researchers at any stage of their career and students registered on a doctoral programme, or a research masters programme at a UK university.

Applications can only be made to use Royce equipment NOT based at the university where the student is registered.

#### **How to apply?**

Follow the links below to find out more about the relevant scheme and make an enquiry using the online



form. Please ensure you have read the guidance notes before making an application.

Apply [Here](#)

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### Industrial Biotechnology Roadmap

Industrial biotechnology has the potential to significantly reduce CO<sub>2</sub> emissions. By embedding biotechnology at the heart of industrial processes and products, it can help to support the UK Government's target of doubling the bioeconomy to £440 billion by 2030 and contribute to the UK's plan to achieve net zero greenhouse emissions by 2050.

**A major new report from BSI, “Industrial biotechnology report: strategic roadmap for standards and regulations” provides a way forward to reduce CO<sub>2</sub> emissions by using industrial biotechnology.**

The report, which was supported by [Innovate UK](#) and the Industrial Biotechnology Leadership Forum (IBLF), investigated the potential for CO<sub>2</sub> reduction in five sectors:

- Agritech
- Biofuels
- Fine and speciality chemicals
- Plastics
- Textiles

The report also provides useful insights around current standards and regulations, as well as examples of initiatives around the world that are helping to unlock the potential of biotechnology.

Download the report: [Here](#)

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### NCIMB announce collaboration with German Distributor Doenitz Prolab

Aberdeen-based microbiology, analytical services, and biological material storage company NCIMB Ltd has announced a new collaboration with German distributor Doenitz Prolab. Doenitz Prolab is a well-established provider of high-quality microbiology products and services, and already supplies Microbiologics quality

control products, many of which contain NCIMB strains.

They will now be acting as a distributor for NCIMB's range of microbial identification services, which includes GMP compliant, genotypic identification of bacteria and fungi. NCIMB identifies thousands of environmental isolates every year for companies from a range of sectors including pharmaceutical, personal care, and food & drink.

Read the full story: [Here](#)



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