

Dear network member,

Hello and welcome to the May BBNet newsletter. In this edition you'll find <u>updates</u> from the Biomass Biorefinery Network, and <u>opportunities</u> from wider sector partners and stakeholders.

BBNet

Events

4th BBNet conference

Registrations are now open for the final <u>BBNet conference</u> which will be held in Sheffield from 15-17 October. Places are filling fast so apply now to secure yours. We look forward to seeing you there!

Funding

Collaborate and Innovate grant funding

We have a limited number of Collaborate and Innovate grant funding awards remaining to allocate. This is the final funding available through BBNet - you can apply for up to £5k to support early stage collaboration and consortium building activities such as meetings and workshops. Find out more and how to apply here.

Opportunities

Would you like to be our next member in the spotlight?

To highlight the excellent research being undertaken by our network members and to explore the breadth of interests in our community, we have established a Member Spotlight area on the website and are looking for new members to shine the light on each month. If you would like to feature then please email bbnet-manager@york.ac.uk and we'll help to create your spotlight and share it with the community.

News

BBNet-funded proof of concept project leads to publication

Researchers from Loughborough University have demonstrated that pulcherrimin, a natural iron-containing compound produced by the yeast Metschnikowia pulcherrima, can serve as an effective and environmentally friendly catalyst in converting 5-hydroxymethylfurfural (5-HMF), a biomass-derived chemical, into 2,5-furandicarboxylic acid (FDCA), which is an essential precursor for the production of sustainable bioplastics such as PEF. The process operates under mild, base-free conditions, offering a greener alternative to conventional methods that often rely on harsh chemicals and costly metal-based catalysts.

By tackling the high costs associated with FDCA production, this research paves the way for wider adoption of bioplastics, contributing to the shift away from fossil fuel-based plastics. The <u>findings from this study</u> have the potential to inspire further advancements in green catalysis and biorefinery technologies.

New publications added to BBNet website

Did you know we house a collection of reports that may be of interest to network members? See the <u>reports section of the website</u> to read a variety of publications

including Engineering Biology Aspirations and Defossiling the Chemicals Sector.

Sector news and opportunities

Opportunities

Renewable Gas Summer School - registration open

BioEco graduate school is running a five day in-person interdisciplinary training course integrating the entire value chain of the transformation of renewable carbon and the economic, environmental and societal issues involved. Open to Masters and PhD students, the course takes place in Toulouse from 11 to 17 June. Find out more here.

Funding: Knowledge Transfer Partnership (KTP): 2025 to 2026 (round two)

UK registered academic institutions, research and technology organisations (RTOs) or Catapults can apply for a share of up to £9 million to fund innovation projects with businesses or not for profits. Read more.

Funding: Full ADOPT grant (round one)

Farming, growing or forestry businesses based in England can apply for a share of up to £2 million. This funding supports on-farm trial and demonstration projects to improve adoption of new ideas or solutions in the agricultural sector. Read more.

Important note: There is also a grant of £2,500, to engage an external project facilitator to support the development of a full ADOPT grant application. Read more.

Multidisciplinary Food Systems Catalyst – Sandpit Registration Now Open

Join a new UKRI-supported initiative to build and transform your impact in sustainable food systems. Researchers from the biosciences or social sciences can express interest for the 2-day in-person Sandpit (2–3 July) and be eligible for £100k funding and a 6-month innovation programme. Find out more and how to apply here.

BBSRC standard research grant: 2025 round 3: applicant-led mode

Apply for funding to support excellent investigator-led research across the breadth of Biotechnology and Biological Sciences Research Council (BBSRC) scientific remit.

You must be based at a UK research organisation eligible for BBSRC funding. Standard research grants are available for researchers at eligible research organisations. Size of award: up to £2 million FEC (BBSRC will fund 80% FEC). Closing date: 24 September 2025. Find out more here.

Call for Evidence: Financing and Scaling UK Science and Technology: Innovation, Investment, Industry

The House of Lords Science and Technology Committee is launching an inquiry into Financing and Scaling UK Science and Technology: Innovation, Investment, Industry. Submissions are welcomed by 23:59, Friday, 9 May 2025. For guidance for submissions, the background to the inquiry, and the questions in which they are interested please see the web page here.

Sector news

BB-REG-NET Publishes new report - "From Research to Revenue: The case for scaling UK bio-based Innovation"

This research shows that the UK's world-class bio-based research and innovation are not yet translating into economic growth at scale. BB-REG-NET's research reveals that only 24% of UK Bio-based companies operate internationally, yet these few account for nearly double the revenue and job creation compared to their UK-only peers. Read the report here.

The Bioeconomy in a Market Storm: A Digest analysis

Jim Lane explores the state of the bioeconomy industry using a GTESI analysis - explore what he found here.

Australian researchers extract valuable compounds from plant waste

Researchers from the University of Adelaide publish a paper on "<u>Structural insights into S-lignin O-demethylation via a rare class of heme peroxygenase enzymes</u>" sharing their innovative catalytic approach that could be the key to extracting high-value molecules from waste lignin. <u>Read more.</u>

Marine litter: what biodegradable plastics can do to solve the problem

Renewable Carbon News reports: For more than two years, the UN member states have been trying to agree on a plastics treaty that includes globally binding measures against plastic pollution. In August, negotiations to reach an agreement will continue in Geneva. Scientists at the Leibniz Centre for Tropical Marine Research (ZMT) have studied existing strategies and are proposing additional measures to tackle the marine litter problem. They are focussing on innovative, "third-generation" biodegradable plastics to be developed on the basis of the EU concept 'Safe and Sustainable by Design' (SSbD). The researchers' comprehensive analysis is published in the journal Sustainable Chemistry and Pharmacy. Read more.

Materiom launches Al chatbot for bio-based material discovery

Materiom AI — a generative AI chatbot that assists users with discovery of biopolymers, ingredients, and additives for bio-based material development. Materiom AI is powered by Google's Gemini, and is now available in beta on the Materiom Commons. "We are delighted to share with our users the first in a series of AI-powered tools we're developing to accelerate bio-based materials R&D," said Jan Botha, Chief Technology Officer at Materiom. Read more.

Scottish bioeconomy secures £5 million boost for innovation

Research and development initiatives designed to accelerate bio-based manufacturing in Scotland have received a £5 million funding boost through Innovate UK's Launchpad programme. Read more.

The new bio-polymers taking green chemistry by storm

What makes biobased vitrimers so special and how could they become commercialised? World Bio Market Insights explores this growing space. Read more.

Recent publications

Martínez, M., Restovic, F., Urrego, F., Fuentes, D. and Ramos, C. (2025) **Evaluation** of enzymatic pretreatment strategies to enhance anaerobic digestion of tomato waste. *Biofuels, Bioproducts and Biorefining*. doi: 10.1002/bbb.2767.

de Castro, S. C., Stanisic, D. and Tasic, L. (2024) **Sequential extraction of hesperidin, pectin, lignin, and cellulose from orange peels: towards valorization of agro-waste.** *Biofuels, Bioproducts and Biorefining*. doi:

10.1002/bbb.2606.

Bywater, A., Lyng, K., Plataniti, L., Wellisch, M., Liu, M., Dong, R., Rasi, S., Luostarinen, S (2025). **Potential for Manure-based Anaerobic Digestion – Motivations, Barriers and Approaches in Six Countries.** *IEA Bioenergy: Task 37 - Technical Report.* Available online.

Lahl, R., Bleischwitz, R., Lahl, U., Zeschmar-Lahl, B. (2025) **Third-generation biodegradable plastics – A complementary strategy to tackle the marine litter problem.** *Sustainable Chemistry and Pharmacy. Elsevier.* https://doi.org/10.1016/j.scp.2025.101925

Conferences and meetings

Webinar: Bio-based materials and designs

Join BioRefine's upcoming Thursday Talk all about biobased materials and design. Taking place online on 14:00-16:00, 22 May 2025, you can <u>find more details on their website</u> and <u>register here</u>.

Webinar: Biochar and Biogas

This session will provide in-depth insights into how biochar can enhance biogas production, improve sustainability, and optimise AD efficiency. Free webinar on 12 May at 13.00 - details here.

The UK Alliance for Sustainable Chemicals and Materials (UK-ASCM) - Chemical UK Expo

The UK Alliance for Sustainable Chemicals and Materials (UK-ASCM) is delighted to convene experts and innovators dedicated to exploring cutting-edge research, emerging technologies, and practical solutions driving sustainability in the chemicals and materials sectors. Attendees of Chem UK on Wednesday 21 May will have the opportunity to engage with industry leaders, policymakers, and researchers to discuss strategies for defossilising the chemical industry - details here.

Reimagining Carbon & Defossilising the UK Chemicals Industry – with Innovate UK Business Connect

Join Pioneer Group and Innovate UK Business Connect, for this exciting event focused on defossilising the UK chemicals industry, which will see the launch of the new Innovate UK Business Connect 'Sustainable Chemicals Innovation Network'. 12 June 2025 - 10:00 am – 16:30 pm - Wilton Centre, Teesside. Book tickets here.

Creating a favourable regulatory environment for bio-based materials

Join this interactive workshop in York on 01 July to help develop new tools, standards and approaches to evaluate bio-based and biodegradable products. <u>Find out more here</u>.

Job opportunities

Do you have a role to advertise?

BBNet members can use our self-service system on the <u>website here</u> to upload and advertise relevant, jobs and we'll feature them in the newsletter too.

BBNet membership

Contacts

Email <u>bbnet-manager@york.ac.uk</u> for any queries relating to BBNet funding, events and membership.

Let us know if you would like to advertise details of a vacancy or other opportunity on our website by completing the Opportunities form and emailing it to bbnet-manager@vork.ac.uk.

Terms and conditions

You've received this email because you previously registered as a member of the Biomass Biorefinery Network. Please see <u>BBNet Membership Terms and Conditions</u>

for details. To terminate your membership, contact <u>bbnet-manager@york.ac.uk</u>. To <u>unsubscribe from emails please click here</u>.