



Biotechnology and
Biological Sciences
Research Council



Engineering and
Physical Sciences
Research Council

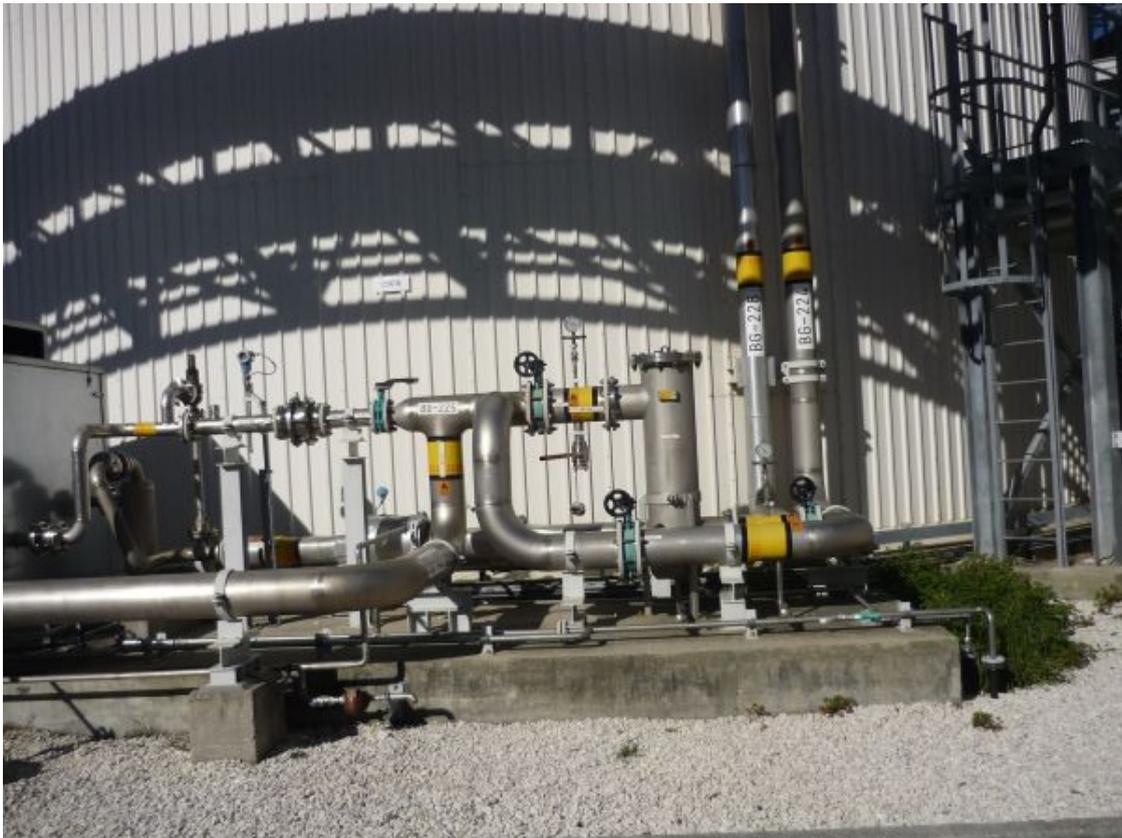


Image of gas headers in front of an anaerobic digester courtesy of **Prof Charles Banks**

EBNet Newsletter - July 2025

New

Stay connected to keep current with the latest in Environmental Biotechnology. Help us by keeping your contact details and preferences up-to-date - see link at the end of this Newsletter to update details or unsubscribe.

Bioelectrochemical Webinars - new series

The [Bioelectrochemical Systems](#) WG is running a new series of monthly webinars. On Mon 14

July at 12-13:00 UK, two speakers from the [LEITAT](#) Technological Center will talk on *Bioelectrochemical technologies initiatives in LEITAT and their role in the energy transition*. See [HERE](#) for more details and joining information. The next sessions are planned for 4 August and 8 Sept 2025 - look out for updates on our [News](#) pages and on the [WG](#) webpage. And see [here](#) for a previous webinar on Electrobiocatalysis by Dr Deepak Pant.

Joint PFAS Workshop

Presentations from the joint EBNNet/EBIC workshop on *Environmental Biotechnology for the management of PFAS and beyond* held on 6 June 2025 at Cranfield University are now available in a workshop [Playlist](#) via EBNNet's and EBIC's YouTube channels. Speakers include [Prof Peter Jaffé](#) and [Prof Joshua Atkinson](#) from Princeton University. Highlights and excerpts from the day are available on EBNNet [News](#), and details of the full programme are given [here](#). Congratulations to Dr Tao Lyu, EBNNet's [PFAS WG](#) Lead, and the [EBIC](#) Team led by Prof Fred Coulon, for this very successful event.

Anaerobic Fermentation Webinar

The webinar on *Mixed-Culture Anaerobic Fermentation in the EU* is now available [here](#) on EBNNet's YouTube channel. Speakers Thomas Dietrich of TECNALIA, Jochen Michels of DECHEMA and Marie-Aline Pierrard of DELUX cover the HORIZON 2020 projects [VOLATILE/CAFIPLA](#), Developments in standardisation of assessment for VFA platform technologies, and insights from industrial pilot-scale trials. This session on biowaste-derived volatile fatty acid platforms was organised by EBNNet's [Anaerobic Fermentation](#) Working Group co-Chaired by Dr Yue Zhang and Dr Luca Alibadi.

Environmental Sensors Symposium

The second International Symposium on [Microfluidics for Single Cell Sensing and Sequencing \(ISM3S\): Environment and Health](#) brings together leading researchers, industry professionals and policymakers to explore applications of microfluidics in environmental sensing. This event takes place on 29-30 July 2025 in Oxford, UK and with support from EBNNet's [ESWS WG](#) led by Prof Zhugen Yang.

Microbes Audiobook

This month's selections from **Green Stories: Microbes to the Rescue** audiobook and ebook are highlighted [here](#), with stories on food waste and composting: tell us what you think!

'I am an Environmental Biotechnologist...'

I enjoy exploring nature and figuring out how microbes and their enzymes can be applied to solve everyday issues, such as plastic pollution.

Zak Towle,
Northumbria University

Right now I'm working on the fundamental geomicrobiology of arsenic in groundwater, including remediation of arsenic pollution.

Mingyu Feng,
University of Manchester

My work is primarily devoted to biomass conversion through biochemical and thermochemical methods.

Arian Shabruhi Mishamandani,
University of Huddersfield

We asked EBNet Early Career Researchers to write a sentence on the theme 'I am an Environmental Biotechnologist...'. See some of their responses, here and in future Newsletters. (And remember EBNet has now been running for 6 years - so some of them are no longer ECRs, but senior academics and industrialists!).

Spotlight On...

Do you have news to share with other members? Email us details if you want a shout-out in next month's newsletter. We can also post News items on the website.



SSF Breakthrough Funding

Ofwat's [Water Breakthrough Challenge 5](#) has awarded almost £2M to the [SandSCAPE](#) project which will trial robotic underwater skimming machines for cleaning slow sand filters (SSF). This novel approach preserves the unique biology of the system, improving both performance and resilience. The funding is awarded to a consortium led by [Thames Water](#) and including Affinity Water, South West Water and Northumbrian Water Group. The project is based on work by Dr Francis Hassard and colleagues at Cranfield University: see EBNet [News](#) for related workshops and publications by our [Water Biofilms WG](#). Great to have some positive news on the water sector!

Eng Bio Mission Hubs showcase - and EBIC podcast series

UKRI is hosting webinars to showcase the Engineering Biology Mission Hubs. Those featured to date include [EBIC](#), ELEMENTAL, the [Microbial Food Hub](#) and [Advanced Therapeutics](#), with P3EB and GlycoCell still to come. For more on UKRI investment in the area see UKRI [Engineering Biology](#). Meanwhile [EBIC](#) has launched a quarterly podcast series, with the first episode on *How can biofilms and bacteria be used to breakdown plastic?* For details and to access the podcast see the [EngBio Tech Podcast](#) page. Key videos from EBIC are also available as a [playlist](#) on EBNet's YouTube channel.

CIWM Presidential Report and Podcast

The Chartered Institution of Wastes Management ([CIWM](#)) has inaugurated its new President and launched the 2025 Presidential report, accompanied by a [CIWM Podcast](#). The report, on [Lost Opportunities? Winning Back Materials To Drive the UK's Circular Economy](#), makes interesting reading for the waste management sector - but is also thought-provoking for EBNet members, with little for Environmental Biotechnology. Is the sector too intractable for anything other than traditional AD and composting - or do we need to work harder on technology translation?

CBE JU update

The latest report from the Circular Biobased Economy Joint Undertaking (CBE JU) shows increases in participation, engagement and demand for funding. More than 1,700 stakeholders connected via the CBE JU networking platform with a record 298 proposals submitted to the 2024 call, of which 31 were funded. By the end of 2024, the portfolio included 192 funded projects involving 1,550 participants from 44 countries, with €213 million committed to new initiatives. Key achievements are summarised on [Cultivating change, harvesting progress: CBE JU's 2024 in review](#) and in the [Full report](#). A short animation marking 3 years of the programme is available [here](#).

New IEA Bioenergy and Biogas reports

A newly-updated [Task 44](#) report on [Technologies for Flexible Bioenergy](#) explores how sustainable bioenergy can provide temporal, spatial and sectoral flexibility to the energy system, as well as diversity in feedstocks, operation and end-products. The recent [Task 37](#) report [Biogas Systems in Industry](#) reviews biogas production and use patterns in 10 European countries, and considers the central role of biogas systems in integrated biorefineries. Both reports are freely available from IEA Bioenergy, and are warmly welcomed by EBNet for their coverage of some key issues within our remit.

Are you getting the latest information from us?

More people are turning to EBNet for speedy access to events, reports, jobs, PhD/Postdoc positions etc.

Join us on [LinkedIn](#).



Forthcoming Events

Find selected upcoming events below.

Find more at: [KTN events](#)

Online events

NEW IChemE [Cell Factory-based Carbon Sequestration Technologies](#) webinar - 16 July 2025

NEW EBNet [Bioelectrochemical Technologies](#) webinar - 16 July 2025

NEW [Contracts for Innovation: Resource Efficiency Impacts](#) Competition Briefing - 16 July 2025

In person events

NEW [Interpore UK 2025](#) - 1-2 Sept 2025, Loughborough

NEW [Microbial Genomics of Eukaryotes](#) - 12 Sept 2025, Glasgow. **Abstracts 12 Aug 2025**

NEW [Contamination & Land Remediation Expo](#) - 17-18 Sept 2025, NEC Birmingham

NEW [ADBA Northern Ireland Conference](#) - 23 Sept 2025, Belfast

NEW [ISWA 2025 Re-imagine Waste](#) - 27-29 Oct 2025, Buenos Aires, Argentina

[Microfluidics Symposium](#) - 29-30 July 2025 **supported by EBNet's ESWS WG**

[China-UK Young Scholars Summer School on Sustainability](#) - 17-26 Aug 2025, China

[UK Fluids Conference 2025](#) - 2-4 Sept 2025, Liverpool

[WasteEng 2025](#) - 3-5 Sept 2025, Funchal, Madeira

[IWA Agro2025](#) - 10-12 Sept 2025, Istanbul, Turkey. [IWA Membrane Technology](#) - 13-18 Sept 2025, Daegu, South Korea

[GapSummit 2025](#) - 15-17 Sept 2025, University of Cambridge

[IWA 1st Photogranules](#) - 17-19 Sept 2025, Delft, Netherlands

[Euro-MIC Closing workshop](#) - 17-19 Sept, Horsens, Denmark and online. **Abstracts 1 Aug 2025,**

Hybrid event

[RETASTE](#) - 24-27 Sept, Athens, Greece

[4th BBNet conference](#) - 15-17 Oct 2025, Sheffield

[IWA Sludge Management 19](#) - 21-24 Oct 2025, Kyoto, Japan

[ICGEB Conference - Bacterial communication](#) - 28-30 Oct 2025, Trieste, Italy **Abstracts 13 July**

[Ecomondo Green Technology](#) - 4-7 Nov 2025, Rimini, Italy

Funding

Selected funding opportunities for academia and industry are highlighted below.

Find more at: [UKRI funding](#)



NEW Innovate UK/DESNZ [Resource Efficiency Impacts Competition](#) - 27 August 2025

NEW [IBioIC Feasibility Funding](#) - 1 September 2025

NEW [Knowledge Transfer Partnership 2025-6](#) Round 3 - 17 September 2025

NEW [Elemental Hub Business Interaction Vouchers](#) Round 1 - 30 October 2025 (or when all funding allocated)

[Pushing the frontiers of environmental research](#) - 16 July 2025

[CBE JU 2023 calls](#) - 18 September 2025

[BBSRC Standard research grant 2025 round 3](#) - 24 September 2025

[BBSRC New Investigator award 2025 round 3](#) - 24 September 2025

[BBNet Collaborate and Innovate](#) - open

[EPSRC Programme grant full proposal](#) - open

[EPSRC Network Grant](#) - open

Travel and related awards

[JSPS Invitational Fellowships 2026](#) - 29 August 2025

[BBSRC International Travel Award](#) - 30 September 2025

[ECR Travel Award - Processes](#) - 31 Oct 2024

[EPSRC Overseas Travel Grant](#) - open

[NBIC Flexible Talent Mobility Account](#) - until 2027



Jobs, Training, Awards & PhDs

We still have funding available for Share-with-a-peer (SWAP) exchanges - for details see EBNet website

Jobs (see also [FindAPostDoc](#) & [Jobs.ac.uk](#))

New [PDRA Biochemistry \(Algal Biotechnology\)](#) - 27 July 2025, SAMS

PhDs (see [FindaPhD](#))

New [Interactive effects of antibiotics and temperature on freshwater bacteria](#) - 11 July, Brunel University

New [Unveiling and enhancing nature-based solutions for mitigating emerging micropollutants](#) - 23 July, Cranfield University

New [Resource at source: Bio-based platforms for transitioning to a Net Zero Chemical Industry](#) - 18 Dec, University of Manchester

[Application of metagenomic methods to profile public health threats in wastewater and freshwater](#) - 31 July, University of Birmingham

[Removal of Emerging Micropollutants From Wastewater in Biofilm Reactors](#) - 31 Aug 2025, University of Southampton

[Enhancing the Efficiency of Biological Waste Treatment with Nanobubbles](#) - 31 Aug 2025, University of Southampton

Training

[Green Fuels Summer School - biomethanation and electromethanogenesis](#) - 27-29 Aug,

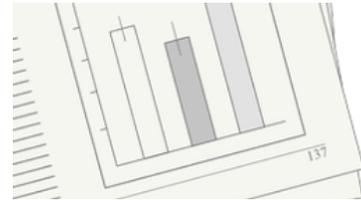
Hersonissos, Crete

Awards

NEW [Processes Best PhD Thesis Award](#) - 31 July 2025

Publications

Have you seen something, or published anything recently, that you would like us to highlight?



Understanding the limitations of substrate degradation in bioelectrochemical systems.

Bird, H., Velasquez-Orta, S. and Heidrich, E., 2025. *Frontiers in Microbiology*, 15, p.1511142.

Quantum machine learning regression optimisation for full-scale sewage sludge anaerobic digestion. Mohamed, Y., Elghadban, A., Lei, H.I., Shih, A.A. and Lee, P.H., 2025. Quantum machine learning regression optimisation for full-scale sewage sludge anaerobic digestion. *npj Clean Water*, 8(1), p.17.

Targeted Enrichment of Nucleic Acid Bionic Arms enhances the Hydrolysis Activity of Nanozymes for Degradation and Real-Time Monitoring of Organophosphorus Pesticides in Water. Zhou, J., Xiong, D., Zhang, H., Xiao, J., Huang, R., Qiao, Z., Yang, Z. and Zhang, Z., 2025. *Environmental Science & Technology*.

Still here?

QQ in play

One of EBNets themes is the interaction between microbiology and engineering, exemplified in both established and emerging biological wastewater treatment technologies. With this in mind, see [here](#) for a recent paper (in Publications above) which links gravity-driven membrane bioreactors developed to reduce energy use (..definitely engineering) with quorum quenching to reduce the production of extracellular polymeric substances and thus membrane fouling.

MethaneSat goes missing

MethaneSat, designed to detect methane releases both from super-emitters like oil and gas production sites, and from smaller-scale and diffuse sources mainly of biological origin, has lost power and contact with its controllers after one year of its planned 5-year mission. Those involved say it has proved invaluable data and critical insights and experience; but a sad set-back for our fellow scientists and engineers, and for the health of the planet.

Where else to look?

There is a growing range of UK Networks and Hubs related to Environmental Biotechnology. Our sister-NIBB, [BBNet](#), runs to January 2026. [NBIC](#) continues to support research into biofilms. The 6 [Engineering Biology Mission Hubs](#) include the [Environmental Biotechnology Innovation Centre](#), which builds on and expands some of the themes in EBNet. Sign up for EBIC's Newsletter [here](#). For two more Mission Hubs with an environmental theme see [Elemental](#) and [P3EB](#), and for new Innovation Networks see the *Spotlight on...* section above



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