

News on biobased resource recovery

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BCE Community

ESNI Conference 2024: Growing the future of nutrient recycling

ESNI Conference 2024

**Growing the Future
of Nutrient Recycling**

**18 & 19 September 2024
Brussels, Belgium**



www.biorefine.eu/esni-2024

On 18 and 19 September 2024, the European Sustainable Nutrient Initiative (ESNI) Conference will be back in Brussels (BE) for a two-day event which will bring together leading experts in the field of nutrient cycling to foster collaboration among European entities engaged in nutrient recycling, facilitating the exchange of valuable experiences and identifying knowledge gaps to guide future research.

Discover the programme and register [here](#)

BCE Community

BBioNets, ReJuice, BioRadar, Nenuphar and Fuelphoria join our community!



The BBioNets project is a thematic network that relies on, promotes and further advances the work carried out by EIP-AGRI Operational Groups (OGs) with respect to the management and/or processing of agricultural and forest biomass with Bio-Based Technologies (BBTs).

Read more [here](#).



ReJuice

The Rejuice project's main goal is to develop at least three sustainable and economically interesting value chains for processing and reusing the liquid fraction from green waste streams. The project focuses not only on roadside clippings and grass but also other common green waste streams such as tomato stems, leek waste, flower stems and duckweed.

Read more [here](#).

FUELPHORIA

FUELPHORIA's objective is to demonstrate the establishment of sustainable complete value chains for advanced biofuels and RFNBOs for providing Europe with sustainable, secure, and competitive energy supply schemes.

Read more [here](#).



The NENUPHAR project aims to develop new governance and value chain solutions addressing three waste streams widely present in the EU: manure, sewage sludges and dairy wastewaters. The project will address four key topics: methodology for estimating nitrogen and phosphorus emissions, new governance models, innovative economic incentives and enabling technologies for nutrient recovery. NENUPHAR's approach will be piloted in various river basins and replicated in insular systems, potentially reclaiming significant nitrogen and phosphorus amounts.

Read more [here](#).



The BIORADAR project envisions a comprehensive approach to exploring the connections between bio-based systems and their applications, circularity, and environmental and social impacts.

Read more [here](#)

Project news

OLEAF4VALUE, sustainable tailor-made and market-ready solutions succeed at olive leaf biomass valorization.



The OLEAF4VALUE project, a sustainable-oriented EU-funded initiative formed by a consortium of 16 expert partners that aimed at switching the way we think about olive leaves, has developed biomass valorisation strategies to solve the problem of olive leaves removal from the fields after 3 years of work. It has achieved significant milestones since its beginning back in July 2021.

Discover more on the project and read the final press release [here](#)

Project news

Sea2Land Map Visor



The nutrient status of European soils differs according to the parent material, the predominant crops and the management of the soil. Depending on these variables we can find soils with an excess of nutrients and others with a dramatic need of nutrients. The SEA2LAND project developed a map visor that can be a very useful tool for advisory services to delimit the areas most in need of fertilization as well as to determine the specific fertilizers needed in each area.

Moreover, fertilizer producers can focus on the areas most in need and the nutrients most needed in each area, while politicians can use this type of mapping to define action measures in specific areas.

Discover the map [here](#)

Project news

NUTRI-KNOW: Community of Practice will be launched on 30 June

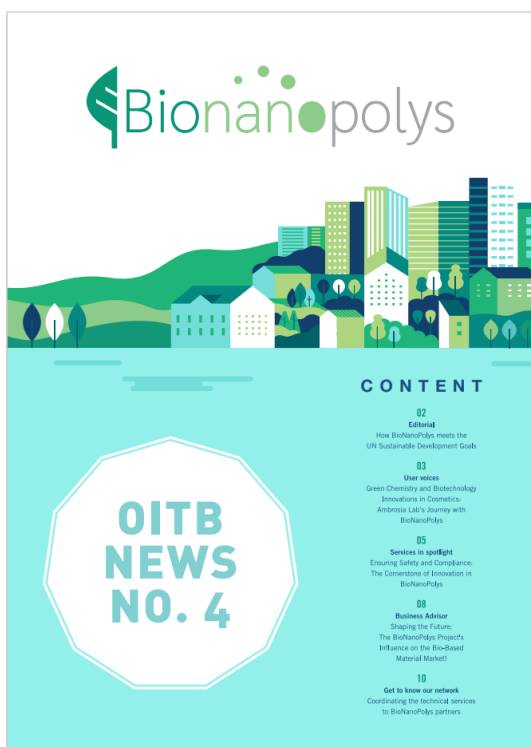


The NUTRI-KNOW will launch soon its Community of Practice (CoP). It is an online forum designed to bring together individuals and organisations involved in nutrient management. This collaborative space will promote the exchange of knowledge, innovative practices, and solutions to challenges in the field. Available in English, Spanish, Catalan, Dutch, and Italian, it will be accessible to a wide audience. Anyone interested in nutrient management can join the CoP. It will be possible to seek advice, share experiences and insights, contribute to discussions, or simply browse our knowledge base.

Learn more [here](#)

Project news

Bionanopolys released its 4th OITB News!



The OITB News #4 of the Bionanopolys project is out! Inside you will learn how the project is helping the EU to meet the UN Sustainable Development Goals, how to make more sustainable cosmetics with nanotechnology, how the safety of the new materials developed in the project is being assessed, and many other aspects of Bionanopolys' Open Innovation Test Bed.

Read more [here](#)

Project news

Revolutionizing Trout Aquaculture: Innovations Towards Sustainable Production and Enhanced Efficiency

The fisheries and aquaculture sectors have been increasingly recognized for their essential contribution to global food production and security in the twenty-first century. Further expansion of this contribution requires the acceleration of transformative changes in policy, management, innovation and investment to achieve sustainable and equitable global fisheries and aquaculture. Researchers at Università Politecnica delle Marche (UNIVPM), Italy, led by Prof. Ike Olivotto and Prof. Adriano Mancini, in collaboration with Dr. M. Zarantoniello and Dr. Alessandro Galdelli are developing, in the context of the FOLOU project, a novel incubation system for trout



embryos based on multi-spectral cameras to estimate the food loss in the production cycle of rainbow trout.

Read more [here](#)

Project news

Fer-PLAY: Circular fertilisers for healthy soil



[The FER-PLAY project](#) aims to protect ecosystems, reduce the EU's dependence on fertiliser imports, and enhance resource efficiency by promoting circular fertilisers. The project is focused on mapping and assessing circular fertilisers made from secondary raw materials, showcasing their numerous benefits to encourage their widespread production and use. One of its key achievements is the development of an open and free database that compiles available data from value chains derived from seven types of secondary raw materials: biological by-products, bio-waste, digestate, industrial wastewater, sewage sludge, treated manure, and urban wastewater. Click [here](#) to explore the database!

Additionally, the FER-PLAY project maintains [a blog](#) where its members share reflections on critical aspects related to the project, policy positions, and other relevant topics.

If you are interested in the project and you want to know more follow its updates on social media: Twitter [\(1\) FER-PLAY EU \(@FER_PLAY_eu\) / X](#) and LinkedIn [\(2\) FER-PLAY EU: Overview | LinkedIn](#)

Project news

Replicability and upscale of microalgae-based treatment of digestate supernatant diluted with sewage



Water resource recovery facilities (WWRFs) are proposed as treatment systems designed to minimise wastes by using the by-products generated in the wastewater treatment process. Macroalgae 4.0 participated in the '18th IWA World Conference on Anaerobic Digestion. Bridging waste to value through anaerobic digestion', where they gave a speech on replicability and an upscale of microalgae-based treatment of digestate. Integrating microalgae-bacteria consortia to WWRFs is receiving increasing attention due to their capacity to recover nutrients and valuable biomass from the process.

Learn more on the project [here](#)

Project news

Oxygenates using novel deep eutectic solvent-based supported liquid membrane technology



HIGFLY researchers are exploring innovative techniques to enhance the purification process of biofuels. A part of this process is the use of deep eutectic solvents (DES) and supported liquid membranes (SLM) as a means of purifying jet fuel precursors, specifically furfural and bio-oxygenates.

Read the entire article [here](#)

Project news

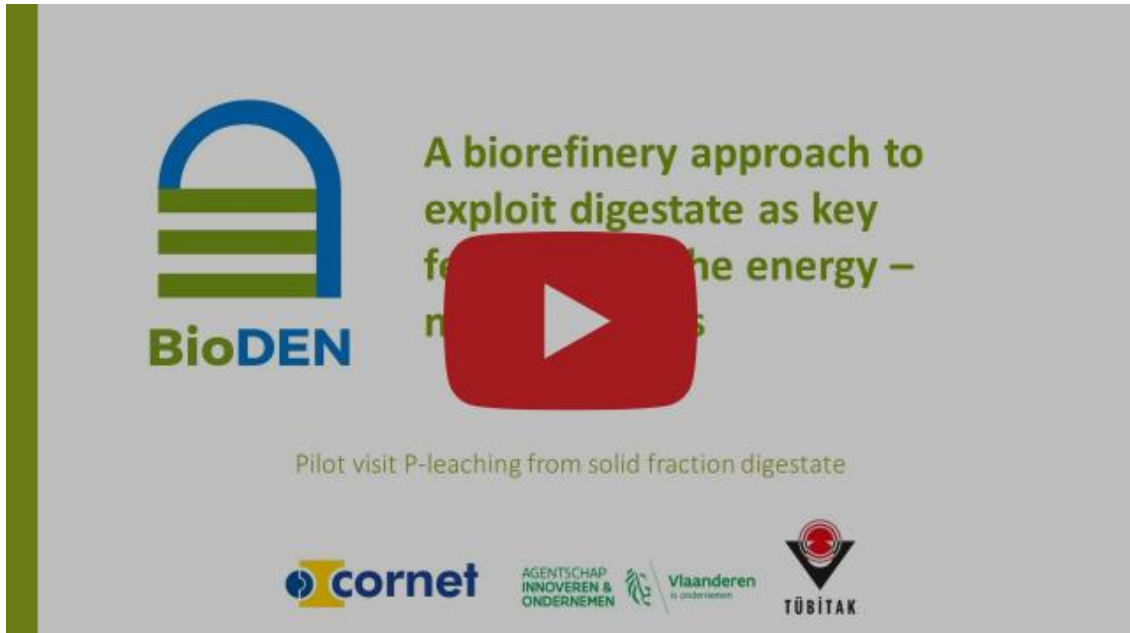
The latest progress of SEMPRE-BIO



Under the collaboration of several SEMPRE-BIO partners, the project is making significant progress in optimizing biopolymer production—a sustainable alternative to plastic. Additionally, their work with microalgae for protein production is yielding promising results. Currently, the project is focused on scaling up, utilizing a 50 L fermenter and a 600 L photobioreactor. Check SEMPRE-BIO [post](#) for more details. Keep an eye out for their upcoming posts, where the consortium delve into the progression of case study 2, achieving pyrolysis and biological methanation at a pre-industrial scale.

Project news

The BioDEN pilot visit: P-leaching from solid fraction of digestate



The BioDEN project aims to improve the business case of biogas plants in Flanders and Turkey by converting nutrients present in digestate into higher-value end products. During farm-scale pilot tests at the Ivaco site, phosphorus could be recovered from the thick fraction of digestate as struvite-like precipitate. For this purpose, the phosphorus was leached from the thick fraction with a waste sulphuric acid. An important milestone within the project.

Read about all BioDEN successes [here](#)

Food for thoughts

ReNu2Farm CAP - [Struvites with comparable nitrogen and phosphorus composition have similar agronomic response but shape cherry tomato rhizosphere bacterial community structure differently](#)

Science Direct - [From grass to gas and beyond: Anaerobic digestion as a key enabling technology for a residual grass biorefinery](#)

Science Direct - [Large reductions in nutrient losses needed to avoid future coastal eutrophication across Europe](#) (Nutribudget project)

Event

5th European Sustainable Phosphorus Conference 8-10 October 2024 - Lleida, Spain



ESPP, together with [BETA technological Center](#), is organising ESPC5 (5th European Sustainable Phosphorus Conference), taking place in Lleida, Spain, 8-10 October 2024.

The conference will delve into the challenges and opportunities of sustainable phosphorus management in the Mediterranean context, and will involve experts and stakeholders to discuss on themes such as organic agriculture, water reuse, eutrophication & P budgeting, and energy transition. The private sector experiences and the latest research on the topic will be complemented with site visits to biorefinery pilots in the region.

More information and registration [here](#)



Event

2nd Young Soil Researchers Forum

14-15 October 2024 - Online

On the 14th and 15th of October 2024, the 2nd edition of the Young Soil Researchers Forum. EUSO's objective is to make YSRF a networking and knowledge exchange event. The young scientists are called to present their work and get in contact with policy makers, academia, other peers and private sector. The event is of interest for academic experts and industry to discover a new pool of talented young scientists.

More information and registration [here](#)

Event

European Biosolids & Bioresources Conference & Exhibition



19-20 November 2024 – Manchester, United Kingdom

The flagship [European Biosolids & Bioresources Conference](#) will deliver two unmissable days for wastewater, bioresource and biowaste management professionals; highlighting operational efficiencies, best practice, regulatory change, research and new technology. Hear from 60+ speakers and network with 300+ attendees, either live in Manchester, or virtually through our online events platform.

For full details visit www.european-biosolids.com or get in touch with Frances – frances.woodhead@aquaenviro.co.uk

[Continue reading](#)



Event

ECOMONDO 2024 5-8 November 2024 - Rimini, Italy

Ecomondo is the key event for green and circular economy. It's the meeting place where industrial groups, stakeholders, policy makers, opinion leaders, local authorities, research bodies and institutions come together and put in place the key elements that define the strategies for the development of EU environmental policy.

More information and registration [here](#).

The Biorefine Cluster is supported by the European Biogas Association (EBA), a no-profit organisation which advocates for recognition of biomethane and other renewable gases as sustainable, on demand and flexible energy sources that provide multiple knock on socio-economic and environmental benefits. Learn more [here](#)



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