



Nutri2Cycle

Transition towards a more carbon and nutrient efficient agriculture in Europe



Newsletter - October 2022

[Nutri2Cycle updates](#)

[Nutri2Cycle held its 7th partner meeting in Lisbon](#)



Nutri2Cycle held its 7th partner meeting from 12 to 14 September 2022 in Lisbon, Portugal. The General Assembly (GA), hosted by the Instituto Superior De Agronomia (ISA), was attended by 18 partners both physically and online. During the GA, partners provided an overview on the advancements in each Work Package. Discussions were mainly focused on the impact assessment of the selected technologies, the lighthouse demos and the validation of the selected innovations at farm scale as well as the understanding of consumers behavior.

The General Assembly ended with an interesting field visit at ISA where they showed the application of cattle manure, acidified cattle slurry and poultry manure on orchards to decrease the use of mineral fertilisers.

[Nutri2Cycle updates](#)

Nutri2Cycle Lighthouse demo network

The Nutri2Cycle Lighthouse Network



With the aim to put theory in action, the Nutri2Cycle consortium organized a series of webinars, intended to present the lighthouse prototypes of nutrient management approaches and innovation. The lighthouse demos demonstrated the research outcomes at relevant pilot, field, farm scale in order to assess the technical feasibility of the proposed solutions and favor their transferability across the EU regions.

Did you miss our webinars? No worries you can re-watch them [here](#)

Check the [map](#) to discover where our lighthouse demos are located! Do you want to know more on the lighthouse demos? Check the list [here](#)

Nutri2Cycle co-chaired a policy roundtable at the ManuResource Conference 2022



Nutri2Cycle co-chaired a policy roundtable in collaboration with Nutrient Management Institute at the ManuREsource Conference which took place in 's-Hertogenbosch, the Netherlands, on May 12th 2022. The roundtables mainly focused on the missing links between RENURE (Recovered Nitrogen from Manure) and Fertilising Products Regulation in two parallel sessions. Interactive discussions between the participants from the European Commission,

universities/research centers and various industries generated fruitful outcomes which ended up as a policy brief – a joint position of European Projects Nutri2Cycle, Renu2Farm, Circular Agronomics, Lex4Bio, FertiManure, FertiCycle, Systemic and Nitroman.

Read the joint position paper [here](#)

Nutri2Cycle updates

Nutri2Cycle in the Nutrient Recycling Community



As member of the Biorefine Cluster Europe, Nutri2Cycle is actively committed in the Nutrient Recycling Community, which aims to foster collaboration with relevant initiatives and projects in Europe related with nutrient recycling and serve as a platform to exchange knowledge and good practices. Nutri2Cycle plays an active role in this Community by leading the Working Group on policy, which scope is to discuss the legal hurdles and the potential solutions for a more efficient nutrient recovery and recycling.

Read more [here](#)

Nutri2Cycle Lighthouse demos

Updates on the field work at the Manicot farm



Within the framework of Nutri2Cycle project, the Chamber of Agriculture has implemented field trials in collaboration with the farm Manicot in Charente Maritime for the agronomic recovery of organic waste.

Watch the video to learn more on their activities!

Demonstration day organised by Teagasc at the arable farm site in Arklow



On the 7th of July 2022 Teagasc held a demonstration day at the site of our field trial for our Nutri2Cycle lighthouse demonstration which centres on a crop farmer using a variety of dairy sludges and organic manures as a means of reducing reliance on chemical fertilisers, and, as a means of closing carbon, nitrogen and phosphorous nutrient loops.

Read more [here](#)

Lighthouse demonstrations in Belgium



During the last months, several lighthouse demo days have been organized in Belgium to give the opportunity to participants to learn more about innovative technologies that are being investigated within the Nutri2Cycle project. During these days, participants were able to learn more about farm scale anaerobic digestion, the use of recycling-derived fertilizers as an alternative for mineral fertilizers, adapted stable systems and the cultivation of duckweed.

These demo days were organized with the support of [Nutricycle Vlaanderen](#), the Flemish NTF.

Read more [here](#)

Drones in nutrient management



The utilisation of the variable rate of fertiliser (VRF) application is almost an every day practice in the precision farming. VRF improves the nutrient use efficiencies and maintain the reasonable yield levels. Drones utilisation can help farmers in the optimisation of their costs and benefits. As there is a strong relationship between gross primary production (GPP) and evapotranspiration (ET) and the latter one can be spatially modelled using energy balance models, the drone field maps can be used for the VRF.

Nutri2Cycle highlights

- [Download and share the updated Nutri2Cycle brochure](#)
- [Download and share National Task Forces brochure in 12 different EU Languages](#)
- [Check project updates on the website](#)

[Nutri2Cycle updates](#)

[PhD Students within Nutri2Cycle](#)



Ms. Marie Lambert is a doctoral student at the faculty of bioscience engineering at Ghent University, in conjunction with Inagro VZW. With her research, Marie contributes to the lighthouse demo “Floating wetland plants grown on liquid agro-residues as a new source of proteins”.

Read more about Marie's work [here](#).



Mr. Jai Sankar Saleem is a doctoral student enrolled at the Faculty of Bioscience Engineering. He investigated the application of low-cost liquid fraction of digestate pre-treatment, screening of food/feed-grade microalgal species and optimization of culture growth conditions for maximal nutrient recovery.

Read more about Jai's work [here](#).



Mr. Reindert Devlamynck successfully defended his PhD “Sustainable protein production on agricultural effluents using duckweed” in September 2021 at Ghent University. His mission is to facilitate the introduction of duckweed as a crop for manure treatment, feed, and/or food purposes in Europe.

Read more about Reindert's work [here](#).



Mr. Arejacy Antonio Sobral Silva is a Ph.D candidate at Instituto Superior de Agronomia (ISA), Portugal, under the supervision of Professor Dr David Figueiro. In Nutri2Cycle he evaluates animal slurry application techniques in conservation agriculture conditions, aiming to improve the nutrient use efficiency and reduce environmental impacts.

Read more about Arejacy's work [here](#).



Mr. Jens Vermeulen is a doctoral student at the faculty of bioscience engineering at Ghent University. His research is now focused on constructed wetlands (in conjunction with floating plants) treat excess manure in manure surplus regions potentially reducing nutrient losses to the environment.

Read more about Jens work [here](#).

Recent Publications

Read the latest publications from the project!

Manure biostabilization by effective microorganisms as a way to improve its agronomic value in *Biomass Conversion and Biorefinery*
Read full paper [here](#)

Selection and application of agri-environmental indicators to assess potential technologies for nutrient recovery in agriculture in *Elsevier*
Read full paper [here](#)

Halving nitrogen waste in the European Union food systems requires both dietary shifts and farm level actions in *Elsevier*
Read full paper [here](#)

Differing Phosphorus Crop Availability of Aluminium and Calcium Precipitated Dairy Processing Sludge Potential Recycled Alternatives to Mineral Phosphorus Fertiliser in *Agronomy MDPI*
Read full paper [here](#)

Life cycle assessment of struvite recovery and wastewater sludge end-use: A Flemish illustration in *Elsevier*
Read the full paper [here](#)

Nutrient recycling events!



European Biosolids & Bioresources Conference & Exhibition | 22-23 November 2022, United Kingdom and online

[See](#) [details](#)



RRB - Renewable Resources and Biorefineries 2023 | 30 May - 02 June 2023, Riga, Latvia

[See details](#)



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