



### **PHOS4YOU FINAL CONFERENCE**

Phosphorus recovery from wastewater: approaches developed within <a href="Phos4You">Phos4You</a>

22<sup>nd</sup> – 23<sup>rd</sup> September 2021 Essen - Germany & online

Event location: Ruhrturm, Huttropstrasse 60, 45138 Essen

### - Programme -













University of Applied Sciences and Arts Northwestern Switzerland



















# Programme 22<sup>nd</sup> September 2021

Moderation: Daniel Frank, DECHEMA e.V. 09:30 Registration and welcome coffee 10:00 **OPENING** Waterboards tackling the circular economy in Germany Uli Paetzel, German Water Association and CEO Emschergenossenschaft Lippeverband 10:30 **EUROPEAN CONTEXT OF THE PHOSPHORUS CHALLENGE** Confering the "End-of-Waste" status with the EU fertilising products regulation Ana-Lucia Crisan, EU COM - DG GROW Opportunities for phosphorus recycling in Europe today and tomorrow Chris Thornton, European Sustainable Phosphorus Platform Lessons learned from the Phos4You project and introduction to the presented results Marie-Edith Ploteau, Lippeverband 12:00 Lunch break 13:00 URBAN CONTEXT AND DEPLOYMENT OF PHOSPHORUS RECYCLING EuPhoRe® process - Experiences and deployment potential Frank Zepke, EuPhoRe GmbH and Georg Schmelz, Emschergenossenschaft Bioacidification combined with STRUVIA™ process - Results of demonstration and modelling works Marie-Line Daumer, INRAE and Cédric Mébarki, Véolia PULSE process - Outcomes of the mobile pilot plant trials Zaheer Shariff, Université de Liège Tetraphos® process applied to NL and DE sewage sludge ashes - comparative analysis Andreas Rak, REMONDIS Agua GmbH & Co. KG PARFORCE process - Results of trials with sewage sludge ashes of Emscher-Lippe-Region Jürgen Eschment, PARFORCE Engineering & Consulting GmbH 14:30 Coffee break 15:00 Scenarios for implementing the mandatory phosphorus recovery in Switzerland Anders Nättorp, Fachhochschule Nordwestschweiz Sewage sludge incineration plant's operators on the way to recycle phosphorus from sewage sludge ashes in The Netherlands Josien Ruijter, HVC Groep and Luc Sijstermans, Slibverwerking Noord-Brabant Strategical options for recycling phosphorus from wastewater in the Emscher-Lippe region Dennis Blöhse, Lippeverband 16:30 OUTLOOK Reduce disparities in North-West Europe - Outline of the new INTERREG funding period and opportunities for the circular economy and the recycling of nutrients Mathieu Mori, Joint Secretariat INTERREG North-West Europe 16:45 GET TOGETHER AT RUHRTURM (ENDS AT 18:00)

Optional: Networking dinner at LUKAS, lake Baldeney, Prinz-Friedrich-Platz 1, 45257 Essen

19:00

# Programme 23rd September 2021

08:30 Registration and welcome coffee

#### 9:00 PHOSPHORUS RECYCLING AND NUTRIENT MANAGEMENT IN THE EU

Key Note: Perspectives for nutrient management in Europe from the perspective of the Farm-to-Fork Strategy and the Common Agricultural Policy

Gijs Schilthuis, EU COM - DG AGRI

Panel discussion: What is needed to successfully implement phosphorus recycling? Gijs Schilthuis, EU COM - DG AGRI; Burkhard Teichgräber, Emschergenossenschaft Lippeverband; Marc Collin, Prayon S.A; Ian Marshall, Irish Nutrient Sustainability Platform

10:30 Coffee break

#### 11:00 RURAL CONTEXT AND DEPLOYMENT OF PHOSPHORUS RECYCLING

Needs for phosphorus removal at small wwtp - Avoidable loads from agglomerations and scattered dwellings not covered yet by the urban wastewater treatment directive Alberto Pistocchi, EU COM - Joint Research Centre

Decision-support tool developed to identify the potential application of P recovery solutions at the scale of EU countries

Pierre Thiriet, INRAF

Recommendations for stakeholders engagement based on Scottish and Irish experiences Tamsyn Kennedy, Scottish Water

**Development of a crab-carapace based adsorbent for Filtraflo™ P** *Szabolcs Papp, Environmental Research Institute, University of the Highlands and Islands* 

Phosphorus removal and recovery with STRUVIA™ at a small-scale wwtp Joe Harrington and Ciaran o'Donnell, Munster Technological University

Microalgae as a solution for wastewater treatment: knowledge gained from operation at sewage works

Ania Escudero and Ole Pahl, Glasgow Caledonian University

13:00 Lunch break

#### 14:00 Assessment of processes and products

Trials campaign made with EuPhoRe sewage sludge ashes at a fertiliser mixing plant of the Raiffeisen Hunsrück Handelsgesellschaft mbH

Daniel Klein, Emschergenossenschaft

Results of the trials campaigns made with phosphate recovered with the PULSE process *Hubert Halleux, Prayon S.A.* 

Works and conclusions on methodological aspects for LCA-LCC of P recovery processes Gaspard Chantrain, Université de Liège

Recommendations towards EU standards to assess quality of recovered P materials based on Phos4You works

Ana Robles Aguilar, Universiteit Gent

#### 15:45 DISCUSSION AND CONCLUSIONS FOR FUTURE PHOSPHORUS STEWARDSHIP

Moderated discussion with audience

Daniel Frank, DECHEMA e.V.

#### 16:15 EXCURSION TO EUPHORE® DEMONSTRATOR, DINSLAKEN (ENDS AT 19:15)

### **Conference materials**

# FOR ALL DOCUMENTS PLEASE FOLLOW THE LINK: WWW.NWEUROPE.EU/PHOS4YOU

The following conference materials are at hand:

- Technical report of the Phos4You partnership on processes to recover phosphorus from wastewater (en, with abstract in en, de, fr, nl)
- Factsheets on 7 phosphorus recovery processes in 4 languages (en, de, fr, nl)
- Factsheets on 5 phosphorus products in 4 languages (en, de, fr, nl)
- Videos on phosphorus recovery processes demonstrated in Phos4You (en)

After the Phos4You Final Conference further documents will be at hand:

- Final report of the Phos4You partnership: deploying phosphorus recycling from wastewater in North-West Europe (en, with abstract in en, de, fr, nl)
- Quality assessment of recovered phosphorus materials carried out within the Phos4You project (en)
- Presentations held during the final conference in pdf format (en)

