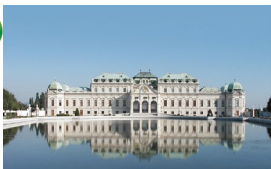


Preliminary draft outline programme for the **4th European Sustainable Phosphorus Conference (ESPC4) 31st May – 2nd June 2021**

Registration fees = 400 € (+ VAT), including PERM R&D Meeting = 500 € (+VAT), evening event = 85 € (+VAT)
(ESPP members/presenters/students = 200 € (+ VAT), including PERM = 300 € (+VAT), evening event = 85 € (+VAT))

All ESPP members are invited to send a poster to display. Sponsors will have a stand and a promotion package.

Monday 31st May 2021		
<i>Andaz Vienna am Belvedere, Arsenalstraße 10, 1100 Wien</i>		
8h30 – 9h00 – Registration and coffee		
9h00 – 10h30 – Opening and Water Policy Context (plenary)		
<ul style="list-style-type: none"> • Ulli Sima, City Minister for Environment – welcome on behalf of the city government • Josef Thon, Vienna City Administration – welcome on behalf of the city administration • Ludwig Hermann, ESPP – conference objectives and what ESPP has done in last 3 years • Franz Josef Radermacher (FAWn) – Energy, Agriculture, Climate - what has to be done? • José Alegre-Seoane/Wim Debeukelaere, European Commission, DG ENVI – Sustainable use of nutrients – EU perspective • Arabel Amann, TU Vienna – Considerations about an Austrian Sustainable Phosphorus Strategy 		
10h30 – 11h00 – Break		
11h00 – 13h00 Phosphorus Sustainability Policies at the City / Region Level (plenary)		
<ul style="list-style-type: none"> • Lukas Egle, Vienna • Fabian Kraus, Berlin, tbc • Speaker tbc, Hamburg • Hidenobu Wakimoto, Kobe City • Speaker tbc, Paris 	<ul style="list-style-type: none"> • Adrien Azé, Amsterdam • Dines Thornberg, Copenhagen • Paula Lindell, Helsinki • Leo Morf, Zürich 	
13h00 – 14h15 – Lunch		
14h15 – 15h45 – Parallel Sessions – Detailed Programme Attached		
Regional Circular Perspectives	P-recycling Projects	New Technologies
15h45 -16h15 – Break		
16h15 - 18h00 – New Business Models for the Circular Nutrient Economy (plenary)		
<ul style="list-style-type: none"> • Reports from parallel sessions • Silvia Tonti, Yara (VP Circular Economy) / Yves Thelier, Veolia (VP), Circular Phosphorus Economy • Wolfgang Hofmair, Borealis, Circularity in Crop Nutrition • Christian Kabbe, EasyMining, Ash2Phos & CleanMap – from Waste to Pure Commercial Product • Anthony Zanelli, ICL, Compound Fertilisers with Recycled Phosphate for Sustainable Food Production • Ahren Britton, Ostara, Reimaging Resources: Recovering Phosphorus from Phosphogypsum and beyond • Alvaro Mayor Pillado, SUEZ Cetaqua, Turning Wastewater Treatment Plants into Biorefineries • Q&A and Discussion 		
19h00 – Evening Event at Belvedere Palace or Vienna City Hall		
<ul style="list-style-type: none"> • 19h00 Pre-dinner drinks • 19h30 Guided visit of Vienna’s Austrian Gallery (“The Kiss” of Gustav Klimt and other Art Nouveau paintings), tbc • 20h00 Talk by Thomas Bubendorfer, extreme climber and keynote speaker • 20h30 Conference dinner, Viennese music interlude • 22h00 Big John Whitfield & The Vienna Soul Society 		



Tuesday 1st June 2021		
<i>Andaz Vienna am Belvedere, Arsenalstraße 10, 1100 Wien</i>		
9h00 – 11h00 – EU Policies (plenary)		
<ul style="list-style-type: none"> • Isidro Campos Rodriguez, European Commission, DG AGRI - CAP FaST Tool for P use in Agriculture • Theodora Nikolakopoulou/Johanna Bernsel, European Commission, DG Grow - Circular Economy & Fertilising Products Regulation • Annika Eskusson/Katja Klasinc, European Commission DG Research & Innovation - EU R&D on P sustainability – H2020, LIFE, Interreg, Horizon Europe & Missions • Isabella Lang, IFOAM Organics International - New FPR and Perspectives for Organic Farming • The Role of National Nutrient Platforms in Enabling a Circular Nutrient Economy: • Renske Verhulst, 10 Years of the Dutch Nutrient Platform • Emma Lundin, Conclusions of Swedish Enquiry into sewage land use and P-recycling, Sweden P Platform • Other platforms and projects: Germany, Ireland, Italy, Czech Republic • Q&A and Discussion 		
11h00 – 11h30 – break		
11h30 – 13h00 – Parallel Sessions – Detailed Programme Attached		
Potentials and Policy Tools	P-Recovery Beyond Europe	New Resources and Products
13h00 – 14h15 – Lunch		
14h15 – 15h45 – Research Perspectives (plenary)		
<ul style="list-style-type: none"> • Reports from parallel sessions • Jacob B. Hansen, Fertilizers Europe - Research Perspectives for Tomorrow's Fertilisers for P Sustainability • Speaker tbc - P₄ as a Critical Raw Material and P use beyond fertilisers • Leon Korving, WETSUS NL, P-recovery and Reuse Research & Development Strategies and beyond • Mark Sutton/Will Brownlie, Centre For Ecology & Hydrology - Our Phosphorus Future – the Need for a Global Phosphorus Cycle R&D Project • Mahesh Pradhan, UN Environment – Perspectives for Global Nutrient Management • Q&A and Discussion 		
15h45 – 16h15 – break		
16h15 – 17h30 – Conclusions and the Way Forward		
<ul style="list-style-type: none"> • Tbc, European Commission, The Green New Deal • Lukas Egle, City of Vienna, Summary and Closing the Urban Loops • Tbc, Dutch Ministry of Infrastructure & Environment • Chris Thornton, ESPP, Summary, the 2030 Mission of ESPP and announcing the next ESPP Conference • Panel discussion on perspectives for phosphorus sustainability policies • Conclusions and Closing Remarks 		
17h30 – ESPC4 Main Conference Closure		
19h00 – 22h00 The Third Woman – NESTERVAL City Adventure Inspired by the 1949 Movie “The Third Man” (tbc)		
Wednesday 2nd June 2021		
Optional parallel events		
Excursion to Vienna Municipal Sewage Treatment Works & Urban Vegetable Farmers Using Heat from Sludge Incineration	R&D projects and networks 4th PERM Phosphorus in Europe Research Meeting	
<i>Max. 80 participants Meeting at Hotel Andaz</i>	<i>Max. 150 participants, TU the SKY Technical University Vienna, Getreidemarkt 9, 1060 Vienna, see separate programme</i>	



Day 1 (Monday) 31st May, 14h15 – 15h45		
Regional Circular Perspectives	P-recycling Projects	New Technologies
<ol style="list-style-type: none"> Roest, K. (KWR Water Research, NL): Impact and opportunities for the urban water cycle of the ‘fully circular in 2050’ target of the Netherlands - Circular Water 2050 Kärrman, E. (RISE, Research Institute, SE): A set of methods to promote the use of extracted phosphorus from sewage in agriculture Kleemann, R. (UCD Dublin, IR): Nutrient Content of Manures and Potential for Valorisation: Case Study of Monaghan and Tipperary, Ireland Hébert, M. (Conseil, CA): Toward Greener Sludge Combustion - the Case of Montreal, Longueuil and Quebec City Weigand, H. (Uni Giessen, DE): MH-RegPhos: P-recovery and the Energetic Valorisation of Municipal Sewage Sludge from the Regional Perspective Miller Alonso Camargo-Valero (Lancaster University, UK): RePhoKUs – P and food security in the UK 	<ol style="list-style-type: none"> Adam, C. (BAM, DE): RePhoR: Industrial Implementation of the AshDec Technology in Germany Dimporzano, G. (Università Milano, IT): LIFE DOP District Model for Nutrient Management and Manure processing Lloret, S. (Egevasa, ES): LIFE Newest New Urban Wastewater Treatment Based on Natural Coagulants Baquet, K. (Stockholm Environment Institute, SE), Research Gaps Revealed by the Bonus Return Project Ploteau, M-E. (EGLV, DE): Possible business models for phosphorus recycling from wastewater based on the Phos4You experiences Speaker tbc, (Baltic Sea Action Group, FI): Baltic Blue Mission / SuMaNu Initiative 	<ol style="list-style-type: none"> De Jager, P. (Aquacare/WETSUS, NL): BioPhree: Next Generation Solution to Remove and Re-use Phosphate in Surface & Effluent Waters to ppb-level Øfsti, A. (Hias How2O, NO): Sustainable Phosphorus Removal with the Hias Process Zambrano, R. (TreaTech, CH): Phosphorus Recovery from Hydrothermally Treated Sewage Sludge Kyllönen, H. (VTT, FI): Phosphorus removal from municipal wastewater as a part of full resource recovery – comparing 6 technologies Blaikie, F.H. (Teknologisk Institut Aarhus, DK): INCOVER Phosphorus Absorbing Material – Idea to Demonstration Scale in 3 Years Regelink, I. (WUR, NL) SYSTEMIC RePeat Recovery of Phosphorus and Organic Soil Improver from Co-digested Manure
Day 2 (Tuesday) 1st June, 11h30 – 13h00		
Potentials and Policy Tools	P-Recovery Beyond Europe	New Resources and Products
<ol style="list-style-type: none"> Persona, A. (IHS/Fertecon, UK): Phosphorus recovery: a market perspective Garske, B. (Rostock University, DE): Economic instruments for phosphorus governance – how taxes and cap-and-trade systems achieve a sustainable phosphorus management Motta, S. (ERSAF Lombardy, IT): Phosphorus an Issue or a Resource? Material Flow Analysis in Lombardy Region. Rechberger, H. (TU Vienna, AT): How to Improve Phosphorus Stewardship, MFA for Austria Stubenrauch, J. (Rostock University, DE): Synergies between sustainable soil P management and climate protection – policy implications at EU level Bianchini A./Fatone F. (University of Bologna/Università delle Marche, IT): Methodology and tools to assess new business models to close the Phosphorus cycle 	<ol style="list-style-type: none"> Amanullah, Jr. (Agricultural University Peshawar, PK): Integrated Phosphorus Management in Field Crops Production: Symbiosis for Sustainable Agriculture in Changing Climate Borges, B. (University of São Paulo, BR): Novel Biochar Fertilizer Increased Plant Available Phosphorus in Weathered Soils Vanotti, M. (USDA, US): Enhanced recovery of phosphorus and proteins from manure using fruit waste Walsh, M. (University of Queensland, AU): Advancing next-generation phosphorus fertilisers by optimising plant root exudate and microbe interactions Weinberg, E. (ESSRE Consulting, US): Watershed Scale Pollutant Phosphorus Removal, Recovery, and Sustainable Redistribution Using Phosphorus Adsorptive Media Yamasue (Ritsumeikan University, JP): Zero-Emission Yellow Phosphorus Production by Combination of Wastes 	<ol style="list-style-type: none"> Bogdan, A. (Ghent University, BE): Dynamic efficiency of recovered P products: Matching plant P nutrient demand with fertilizer P availability Erhart, E. (Bioforschung Austria, AT): Testing sewage sludge ash for a P-enriched organic fertilizer Myrbeck, A. (RISE, Research Institute, SE): Reuse of phosphorus from wastewater in agricultural products – fertiliser effect and set up of cultivation tests Thomas, J.B. (KTH Royal Institute of Technology, SE): Closing the nitrogen and phosphorus loop in Sweden using marine biomass Windisch, St. (Montanuniversität Leoben, AT): Phosphorus removal from sewage sludge ashes with the RecoPhos (thermal) Process: Recent Advancements and results Monea, M.C. (University of Stuttgart, DE): Phosphorus Recovery from Sewage Sludge Using the Stuttgart Process: Large-Scale Operating Experience with a Mobile Plant