

5TH EUROPEAN CONFERENCE ON SLUDGE MANAGEMENT

ECSM'2019 | 6 > 8 OCTOBER 2019

Provisional program (26/07/2019)

Sunday, October 6, 2019

19h00 **Welcome reception**

Monday, October 7, 2019

8h00 – 9h00 **Participant registration**
Academic Room of University of Liège, Place du 20 Août 7, 4000 Liège

9h00 – 9h15 **Welcoming address – Conference opening**

9h15 – 10h00 **Plenary lecture 1**
« A holistic approach to face challenges of wastewater operators for sewage sludge management in Europe » by Jean-Pierre Silan, EurEau

10h00 – 10h45 **Plenary lecture 2**
« Developments in regulatory and downstream user perspectives in sewage sludge management in Europe: drivers, challenges, opportunities » by Ludwig Hermann, President, European Sustainable Phosphorus Platform

10h45 – 11h10 **Coffee break**

11h10 – 12h30 **Session 1: Strategic aspects of sludge management**

11h10 – 11h30: Re-conceptualizing Sludge Management: Regulatory and Socio-economic aspects, Ludovico Spinoso, Puja Doshi

11h30 – 11h50: Use of biosolids in Europe: possibilities and constraints, Andrea Gianico, Giuseppe Mininni, Camilla Maria Braguglia, Giulia Sagnotti, Marco Porrega

11h50 – 12h10: Handling sewage sludge – technological opportunities and limitations, Veronika Kerberová

12h10 – 12h30: Sewage sludge as a source of energy, Ferenc Zsabokorszky, Ferenc Ligetvári

12h30 – 13h45 **Lunch and poster session**

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- 13h45 – 14h30 **Plenary lecture 3**
« The new EU fertilizing products regulation and its practical implications» by
Dr Antoine Hoxha, Fertilizers Europe
- 14h30 – 16h10 **Session 2: Phosphorus recovery – Lab scale**
- 14h30 – 14h50: Understanding Phosphorus dissolution in sewage sludge
by bioacidification, Mohamed Amine Saoudi, Karel As,
Marie-Line Daumer
- 14h50 – 15h10: Potential for increasing phosphorus recovery from
sewage sludge by bio-Acidification, Marie-Line Daumer,
Younes Bareha, Mohamed Saoudi
- 15h10 – 15h30: Pulse process: recovery of phosphorus from sludge and
its product quality assessment, Zaheer Ahmed Shariff,
Aleksandra Bogdan, Laurent Fraikin, Evi Michels,
Angélique Léonard, Erik Meers, Andreas Pfennig, B.
Durand
- 15h30 – 16h00 **Coffee break + Poster session**
- 16h00 – 17h20 **Session 3: Phosphorus recovery – Pilot scale**
- 16h00 – 16h20: First results of the EUPHORE pilot plant, Daniel Klein,
Karl-Georg Schmelz, Levent Pamuk, Marie-Edith
Ploteau, Frank Zepke, Siegfried Klose
- 16h20 – 16h40: Results of Pilot Scale Tests for P-Recovery from
Emscher-Genossenschaft-Lippeverband Sewage Sludge
Ashes with REMONDIS TetraPhos® Process, Dennis
Blöhse, Patrick Herr
- 16h40 – 17h00: P-recovery as struvite from digested sludge - experience
from the full scale, Bart Saerens, Sam Geerts, Marjoleine
Weemaes
- 17h00 – 17h20: Recovered Phosphorous fertiliser and effects on residual
soil P indices in relation to commercial P fertiliser,
Ciaran O'Donnell, Niamh Power, D. Barnett, Joe
Harrington
- 17h20 – 18h00 **Round table: Future and opportunities for sludge valorization**
- 20h00 **Conference Banquet**

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Tuesday, October 8, 2019

- 8h30 – 9h15 **Plenary lecture 4**
«Occurrence and Reduction of Emerging Contaminants in Sludge» by
Prof. Dilek Sanin
- 9h15 – 10h35 **Session 4: Sludge digestion**
- 9h15 – 9h35: Improving the Flexibilization of Digester Gas Production
Through Predictive Choice of Co-Substrates, Christian Hubert, Bettina Steiniger, Christian Schaum
- 9h35 – 9h55: Enhanced anaerobic digestion of sewage sludge by
hydrogen addition: Influence on microbial population, Elia Judith Martínez, Ana Sotres, G. Papacharalampos, Cristian
Bernabe Arenas, Antonio Morán, Xiomar Gómez
- 9h55 – 10h15: Investigation of energy production potential and toxic
effects of industrial sludges during anaerobic digestion,
Hazal Aksu Bahçeci, Latif Selim Sanin, F. Dilek Sanin
- 10h15 – 10h35: Comparison of Methane Yields from Batch Tests and
Continuous Digesters, Bettina Steiniger, Christian Hubert,
Christian Schaum
- 10h35 – 11h00 **Coffee break**
- 11h00 – 12h40 **Session 5 : Sludge dewatering**
- 11h00 – 11h20: Economic and environmental overview of sludge treatment
in reed systems - 30 years of experience, Steen Nielsen
- 11h20 – 11h40: Sludge conditioning, thickening and dewatering
optimization in a screw centrifuge decanter: which means
for which result ? Pascal Ginisty, Romain Mailler, Vincent
Rocher
- 11h40 – 12h00: Sludge dewatering with automatically optimised
conditioning –initial technical experience with the new
flocculation principle, Michael Sievers, Michael
Niedermeiser, Jochen Gaßmann, Tim Hartmann, Sven
Dilba

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12h00 – 12h20: Polyelectrolyte consumption optimisation of dewatering centrifuges at the North-Budapest Wastewater Treatment Plant, Katalin Kiss, Zsófia Kassai

12h20 – 12h40: Impact of the anaerobic digestion process configuration on the sludge dewaterability, Pavel Jenicek, M Capuano, Ch. Marchi, Marie Vojtiskova

12h40 – 13h45 **Lunch**

13h45 – 14h30 **Plenary lecture 5**
« Fundamentals about sludge drying » by Prof. Patricia Arlabosse

14h30 – 15h30 **Session 6: Thermal treatment and characterization**

14h30 – 14h50: Influence of back mixing on the pilot-scale convective drying of sewage sludge: evolution of the volume and exchange surface, Jie Li, Cheng-Wei Wu, Laurent Fraikin, Thierry Salmon, Dominique Toye, Angélique Léonard

14h50 – 15h10: Energy efficiency in sludge drying, Jasper Aalders, Peter Quaak, Jeffrey IJdo, Angélique Léonard, Laurent Fraikin, Thierry Salmon, Menno Maingay

15h10 – 15h30: Towards 3D rheology for sludge? Mohamed Mouzaoui, Martial Sauceau, Jean-Christophe Baudez, Patricia Arlabosse

15h30 – 16h50 **Session 7: Sludge valorization**

15h30 – 15h50: Enzyme production by bacillus licheniformis from thermally hydrolysed sludge, Manuel García, Sergio Collado, Paula Oulego, Mario Díaz

15h50 – 16h10: Ultrafiltration for recovery of valuable components from hydrolysed sludge, Sergio Collado, Daniel Núñez, Paula Oulego, Mario Díaz

16h10 – 16h30: Secondary sludge treatment by microbial electrolysis cell: simultaneous nitrogen and carbon removal, M. Isabel San-Martín, Guillermo Pelaz, A. Sofia Portillo, Adrián Escapa, Antonio Morán

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16h30 – 16h50: Disposal of sludge in agriculture: the effect of the electro-dewatering process on biological stability and pathogenic contamination, Simone Visigalli, Jannatul Rumky, Andrea Turolla, Roberto Canziani

16h50 – 17h30 **Conference conclusions**

Posters

1. Anaerobic sludge as inoculum for innovative bioelectrochemical systems, Raúl Mateos, Raúl M. Alonso, Daniela Carrillo, Ana Sotres, Adrián Escapa, Antonio Moran
2. Assessment of electrooxidation as pretreatment to enhance anaerobic digestion of waste activated sludge, E.J. Martínez, C.B. Arenas, G. Papacharalampos, I. San Martín and X. Gómez
3. Circular economy with sludge - a novel solution, Verma Prem, Hilmar Sune
4. Emerging pollutants in wallon sewage sludge: towards an integrated methodology to evaluate health and environmental impacts of farmland spreading, Cécile Kech, Stéphanie Bémelmans, Eric Moïs, Caroline Nadin, Christophe Fripiat
5. Implementation of the Struvia phosphorous recovery pilot plant at an Irish waste water treatment plant, Ciaran O'Donnell, Niamh Power, Denise Barnett, Joe Harrington
6. LC/MS and GC/MS determination of emerging pollutants in wallon sewage sludge, Stéphanie Bémelmans, Cécile Kech, Eric Moïs, Caroline Nadin, Christophe Fripiat
7. Microplastic in sewage sludge - an extraction method as a pre-treatment step for the analysis of microplastic, Annett Mundani, Steffen Krause, Christian Schaum
8. Optimization and economic assessment of an environment-friendly in situ enzymatic biodiesel production method from urban sewage sludge, Cécile Kech, Damien. Garot, Caroline Nadin, Christophe Fripiat
9. Strategy and concept-approach for the recovery of phosphorus in one of the largest sewage sludge producers of Germany, Dennis Blöhse, Dirk Bogaczyk
10. Towards quality control of feedstocks for biodiesel production: the case of urban sewage sludge, Cécile Kech, Damien. Garot, Caroline Nadin, Christophe Fripiat

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11. Utilisation of sewage sludge in combination with recultivation of degraded lands for in-situ production of a soil substitute, Balint Heil, Gábor, Kovács, Sándor, Horváth
12. Validation of a pilot scale belt filter for sludge dewatering, Laurent Fraikin, Pierre Wuidar, Thierry Salmon, Angélique Léonard

With the support of



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