

Reuse, Recover, Recycle – Accelerating Resource Recovery from Water

IWA WWC WORKSHOP, 20 SEPTEMBER 2018



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- 3 Sessions with lunch break between session 2 and 3
- Each session starts with a 30 minutes round of presentations.
- Moderators will formulate 2 questions for discussion related to the session topic (15 min):
 - The table groups discuss the questions.
 - A facilitator (speakers if possible) is assigned to each table and is responsible for collecting feedback from the table
 - Feedback is sent through “VoxR Cloud Q&A”: 3 major points maximum per table should be highlighted with one most relevant identified.
- moderator highlights the most relevant contributions.
- wrap-up of the workshop.

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INTRODUCTION

- Water in the circular economy, supporting a nascent movement (policy and governance aspects) – feedback from WWF2018
Bruno Tisserand, EurEau
- Accelerating Resource Recovery from Water: Business models, drivers and regulatory policies
David Stuckey, co-chair of the cluster for resource recovery

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Session 1: The development of successful business models and their relation to (national) policy and regulations.

- Water recycling adoption in Food and beverage sector
Kaarina Schenk, Federal Office for the Environment, Switzerland
- Influence of regulatory frameworks on business models and technology choices
Christian Kabbe, Isle Utilities and German Phosphorus Platform, Germany
- Business models/options for RRR – Opportunities and constraints
Miriam Otoo, Research Group Leader – Resource Recovery and Reuse, International Water Management Institute (IWMI), Sri Lanka

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Session 1: Questions.

- How important is the regulatory framework to achieve resource recovery? (% to be suggested)
- As water sector, what would you **wish to happen** from the recycling community or the policy makers to **facilitate** resource recovery and **ACTUAL use** of the recovered product?

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Session 2: Successful case studies of resource recovery from water: drivers and KPIs.

- Recovery of struvite from WWTP,(technical and economic aspects)
Marjolein Weemaes, Aquafin, Flanders
- Energy surplus at wastewater treatment plants: energy efficiency and recovery such as biogas, electricity, vehicle fuel, and reuse of surplus heating from treated wastewater – Experience from Denmark
Jens Prismo, BIOFOS, Denmark
- Revaq certified wastewater treatment plants for control at source and improved quality in carbon and nutrient recycling
Ulf Thysell, Svenskt Vatten, Sweden
- Water reuse – treated wastewater safely reused in agriculture experience from southern Europe
Gari Villa-Landa Sokolova, AEAS, Spain
- Water recycling adoption in Food and beverage sector
Chris Hertle, GHD, Australia

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Session 2: Questions.

- What have been the barriers and the drivers for **your** successful case-studies?
- Can resource recovery from urban water, as a main management strategy, become **economically viable**?

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LUNCH BREAK

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SESSION 3 starts at 13:50



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Session 3: Centralized versus decentralized.

- P Innovation to reshuffle the P value chain for recycling
Hisao Ohtake, Japanese P-recycling Council, Japan
- Centralized sludge incineration in Zürich enabled by cooperation of 72 municipalities/sewage operators and saving almost 50% of the previous sludge management costs.
Tanja Schaaf, Outotec, Germany
- P-recycling as CleanMAP® - outperforming linear products in terms of purity, solubility and nutrient concentration
Yariv Cohen, EasyMining, Sweden
- Regional resource recovery from sewage and the organic fraction from municipal solid waste and restoring biodiversity in agriculture
Gilberto Garuti, Acqua e Sole, Italy

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Session 3: Questions.

- What are the **constraints and the drivers** for **centralised** and **decentralised** approaches?
- When you have a **choice to make** between multiple resources to recover, what are the **criteria to set priorities**?

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CONCLUSION

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RRW cluster conference (Venice 2019)

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the IWA WWC (Copenhagen 2020)



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