



# Phosphorus management in the UK water industry – from costly pollutant to valuable resource

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Broadway Room: P recovery & reuse II



# Phosphorus Management in the UK

## Water Industry – Pollutant to Resource

By James Cooper and Rosanna Kleemann

- Phosphorus as a Pollutant



UK waste water treatment works receive phosphorus from our wastes.

55,000 tonnes of phosphorus

Existing legislation requires P removal at some WwTWs, mostly by ferric dosing.



P is removed in sewage sludge...

34,000 tonnes of phosphorus

...or discharged to water bodies.

21,000 tonnes of phosphorus



To achieve 'good ecological status' under the WFD, additional P removal may be required.

Conclusion: The UK water industry currently manages phosphorus as a pollutant.



# • Phosphorus as a Resource

## ■ What are we doing?

- Struvite recovery
- Potential P recovery from incinerator ash

From a Problem



To a Product



## • Why are we doing it?

- WW is a large point source for P recovery
- Turn struvite problem into beneficial resource
- Possible to recover 10% P from incinerator ash

