Value from sludge and wastewater resources

MAXIMISE THE VALUE OF RECYCLED NUTRIENTS FROM SIDESTREAMS WITH CUTTING EDGE SOLUTIONS

Did you know that wastewater treatment plants are increasingly viewed as biorefineries producing value from waste streams? Modern, recycling-based waste management also tackles challenges in climate protection and resource efficiency.

RETHINKING WASTE MANAGEMENT

Currently, too much waste and nutrients end up in seas and oceans globally. Europe is leading the way in sustainability with initiatives such as the 2015 Circular Economy Package, designed to stimulate transition to a circular economy. Early in 2017, the EU raised the benchmark for municipal waste recycling to 70%, the current EU average being around 44%.

The quantity and quality of water is one of the key bottlenecks in a circular economy. When municipal and industrial wastewater and sludge are considered a resource rather than waste, utilites can start recovering valuable nutrients such as nitrogen, phosphorus and magnesium into the circular economy.

Pöyry masters the whole value chain of water, wastewater and sludge with over 50 years' experience.

NUTRIENTS FROM SIDESTREAMS

Bio–based refined fertilizers are produced from municipal and industrial wastewater sidestreams by treating them with forthcoming technologies.

They decrease greenhouse gas emissions, energy usage and eutrophication of waterbodies while reducing dependency on mineral nutrient reserves.

It is crucial for utilities to take into account the economic impact as well as the ecological requirements of new solutions in order to choose the optimal technology.

CLIENT ISSUES

With increasing pressure to take resource efficiency to the next level, our clients are facing some key questions:

- Legislation and politics favour refined fertilizer products; compost and sludge have image issues
- Industrial symbioses are commercially beneficial
- Technologies vary widely depending on their maturity and economic feasibility

PÖYRY'S SERVICES

Pöyry's teams are involved in the design and construction supervision of wastewater treatment plants all over the world. Their size ranges from 100 population equivalent to more than five million population equivalent.

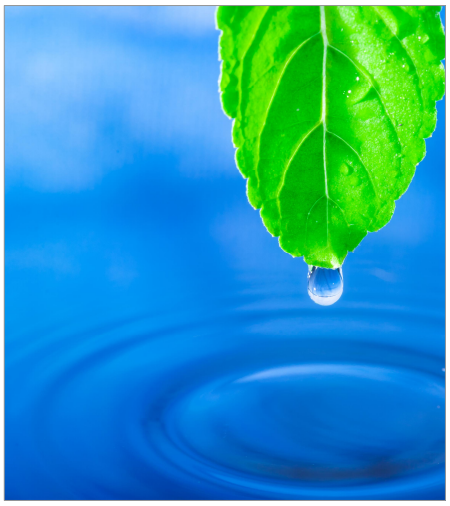
Pöyry provides comprehensive solutions for the most effective wastewater disposal and treatment operations that best meet the needs of our clients:

- Technology consulting and engineering services
- Assessments of project viability
- Market strategies for specific plants and specific local situations
- Technology commercialisation roadmaps
- Wastewater Treatment Plants

BENEFITS

1. From unprofitable waste streams to valuable products
2. Supports circular economy – nutrients are recycled back to agricultural use
3. Beyond 'cradle to grave' thinking

While designing plants, we take into account all relevant technologies, including green techniques and membrane technology for high performance compact plants.



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