

CO-CREATION: Circular economy of nitrogen in mine waters; Tyten kiertotalous kaivosvesistä (TYPKI)

Project duration: 1.2.–30.9.2019

WANTED PARTNERS:

*Companies from all phases of nitrogen chain:
plants with N-containing waters, experts in N-
removal and recovery technologies, manufacturers
and prospective utilizers of recycled N-products.*

NAME OF THE LEADING ORGANIZATION

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Current partners



Research topics



Content & aims

- ❖ Decreasing the environmental impact of operation
- ❖ Local utilization of end product

- ❖ Wide research on different technologies & pilot testing
- ❖ Techno-economic evaluation
- ❖ Process modelling
- ❖ Life cycle assessment

- ❖ New business models for industrial side stream processing
- ❖ Markets and quality requirements for end products

CO-CREATION:

Circular economy of nitrogen in mine waters

AIM & CONTENT OF THE CO-CREATION PROJECT

Bringing together operators from different fields aiming for a more coherent circular utilization of nitrogen compounds.

BENEFIT & COMPETITIVE ADVANTAGE OF THE SOLUTION

Customized solutions reduce nitrogen emissions in response to tightening environmental legislation. In addition, value chains between various types of streams, recovery methods and products are developed, which can create new business opportunities for companies at any part of the process chain.

TARGET MARKETS & GLOBAL MARKET POTENTIAL

As nitrogen emissions are a global challenge, the results from this project can be utilized internationally as well and increase the implementation of circular nitrogen economy worldwide.