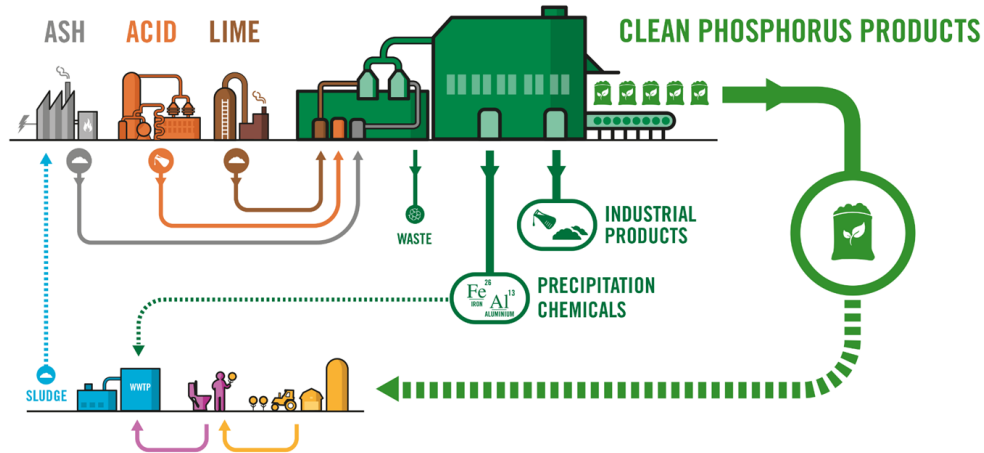


Ash2Phos

Clean commercial phosphorus products from sludge ash

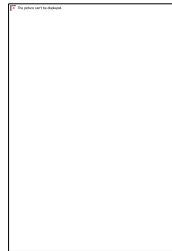


Process characteristics

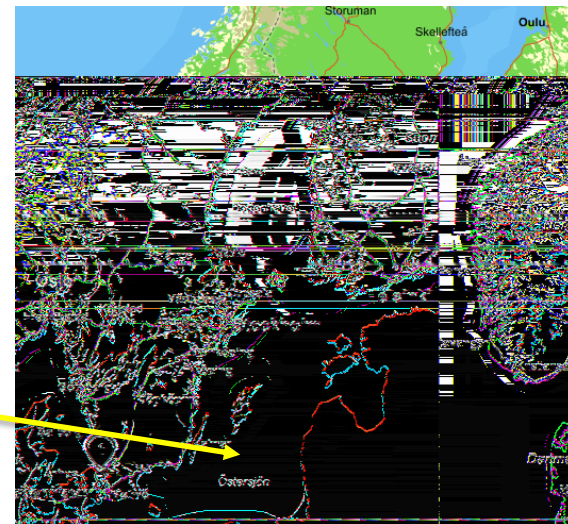
- Clean well known phosphorus products ($Cd < 1 \text{ mg/kg P}$)
- Input chemicals become part of products
- Products effective in their applications
- Simple and robust process
- Low energy consumption
- Can use waste acid
- Recovery of iron and aluminium separately

Products from the process

- Phosphorus
 - Calcium phosphate (feed phosphates)
 - Superphosphates
 - Ammonium phosphate (fertilizer)
- Precipitation chemicals (iron chloride & aluminum sulfate)
- Heavy metal (disposal)
- Undissolved ash



Successful industrial pilot trails



Ash2Phos – activities to full scale plant



- 30 000 ton ash per year plant in Sweden
 - Pilot tests for final design
 - Basic engineering (COWI)
 - Ash supply contract
 - Permit application
 - Detailed engineering, construction, commissioning and start up
- Marketing and negotiation agreement for Ash2Phos projects in Germany

