

# Advanced separation technology at VTT

Developing process concepts for industrial water reuse, effluent purification, valuables recovery and gas purification

## Versatile capabilities for industrial separation technology development

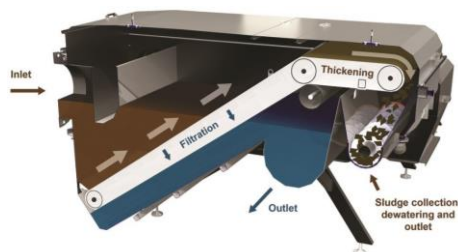
- Continuous and batch type solid-liquid separation
- Membrane technology and solutions
- Spray and freeze drying
- Mobile separation equipment and systems

## Key equipment for testing and scale-up

- Filter press, vacuum belt filter and Salsnes type filters for batch and continuous trials
- Pressure driven membrane filters; dead-end and cross flow units for membrane filtration applications
- Cartridge and bag filters
- Screw press
- Decanter and centrifuge
- Membrane contactor, membrane distillation and forward osmosis system
- Electrodialysis systems
- Spray and freeze driers
- Resource container for mobile testing of different unit processes

## Service offering

- Separation and recovery concept creation and testing
- Testing of key technology alternatives for creating scale-up design basis
- Proof of concept demonstration and material production
- On-site customer testing support with mobile equipment



Salsnes SF1000 belt filter for solid-liquid separation



Modified Alfa Laval PilotUnit Combi M39/M3.8 system for membrane filtration piloting



Fumatech test system for electro dialysis piloting