

## Introduction

Novozymes has implemented a water saving unit. This produces a concentrated stream of process water

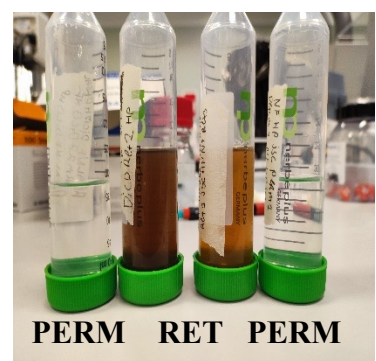
The process stream can be challenging to handle for the wastewater treatment plant

Fractionating the stream can provide optimization and valorization opportunities

Membrane technology is a green, highly customizable, and scalable separation technology

## Methods

- 1 Historical data
- 2 Screen membranes
- 3 Analyze streams
- 4 Test different batches
- 5 Test with process conditions



## Results

1 membrane produced showed good retention

The size of solids was much lower than expected

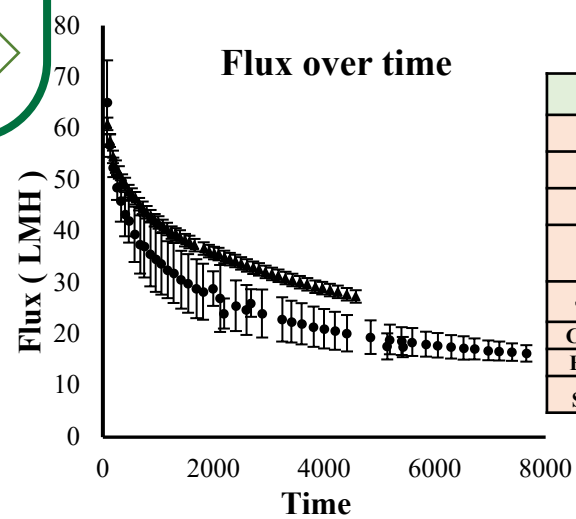
Large variety in feed composition, can influence filtration process

## Future prospects

Generated data can be used to produce mass balance and a business plan be developed

Can enable highly specific wastewater treatment facilities

Products can be used for high quality bioenergy or feed



	NF membrane
Limiting flux (bar)	15
Peak flux (LMH)	65
Average flux (LMH)	28.13
Protein rejection coefficient	0.86
TN rejection coefficient	0.65
COD rejection coefficient	0.92
Brix rejection coefficient	0.70
Salt rejection coefficient	0.35