

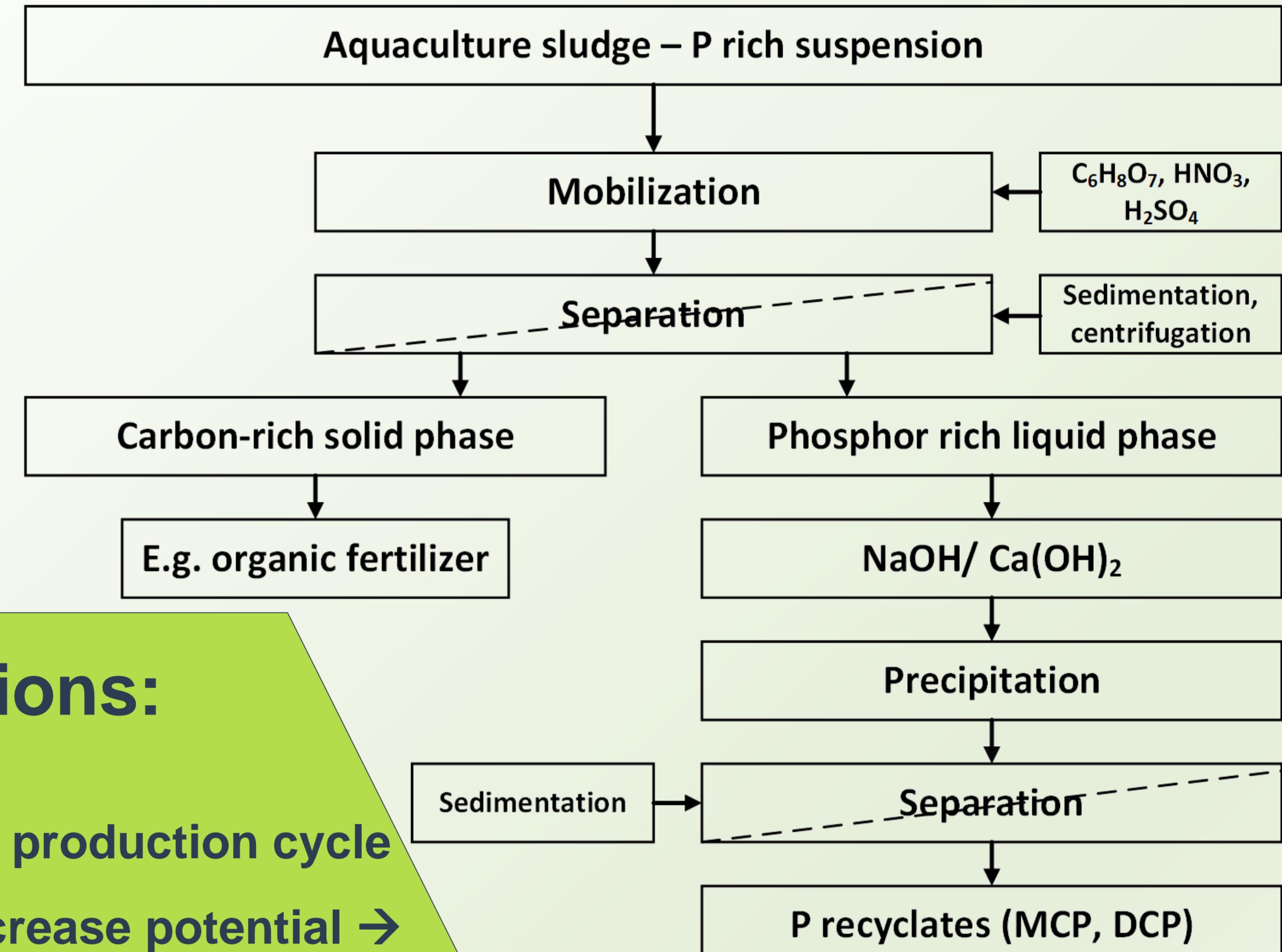
Project Cluster II.1:

## Aquaculture-applied phosphorus recycling in animal husbandry

### Objectives:

- Evaluation of P recovery potential of recirculation aquaculture systems (RAS)
- Identification of optimal process configuration (mobilization, precipitation, extraction)
- Digestibility analysis of P-recyclates
- Economical evaluation

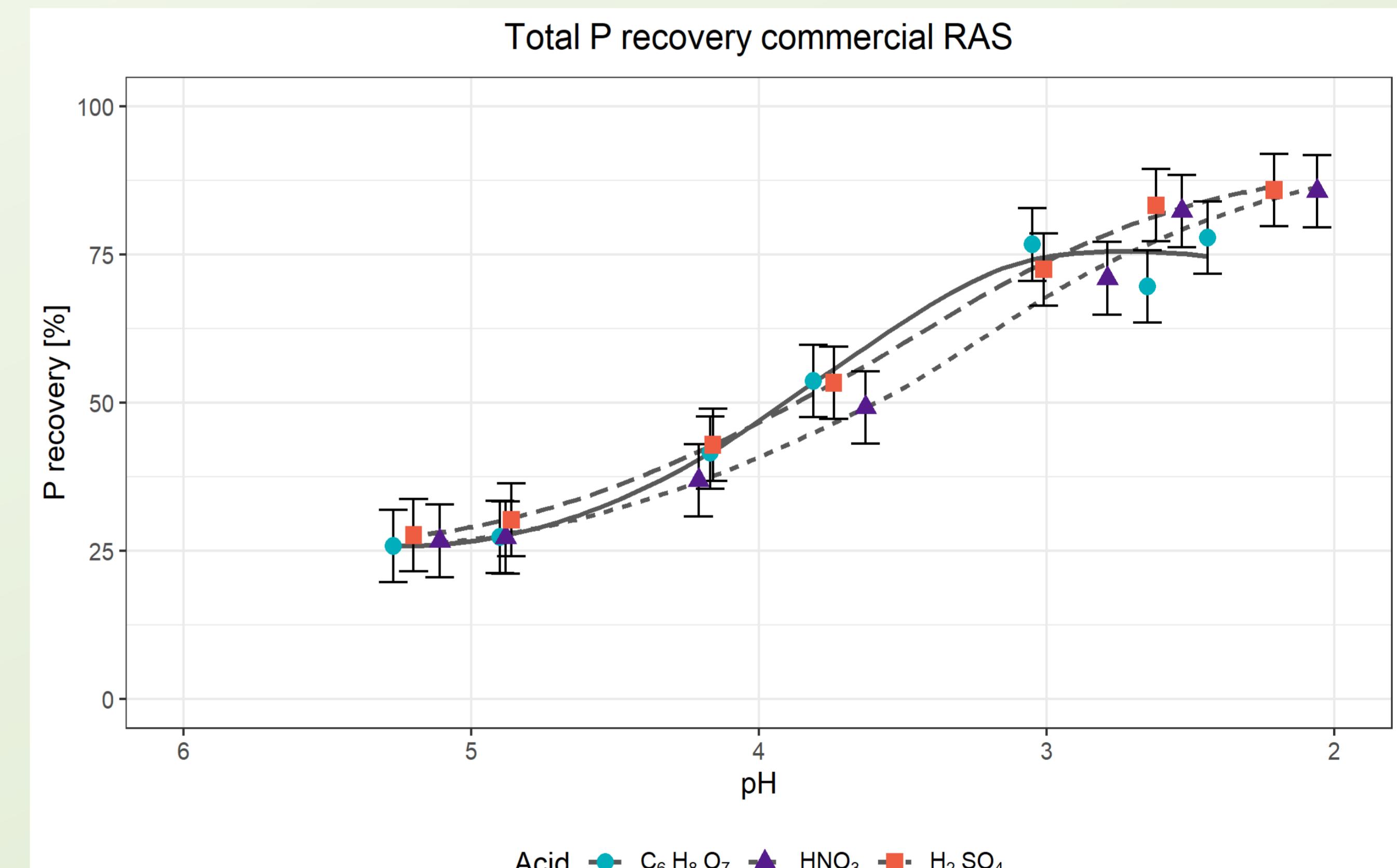
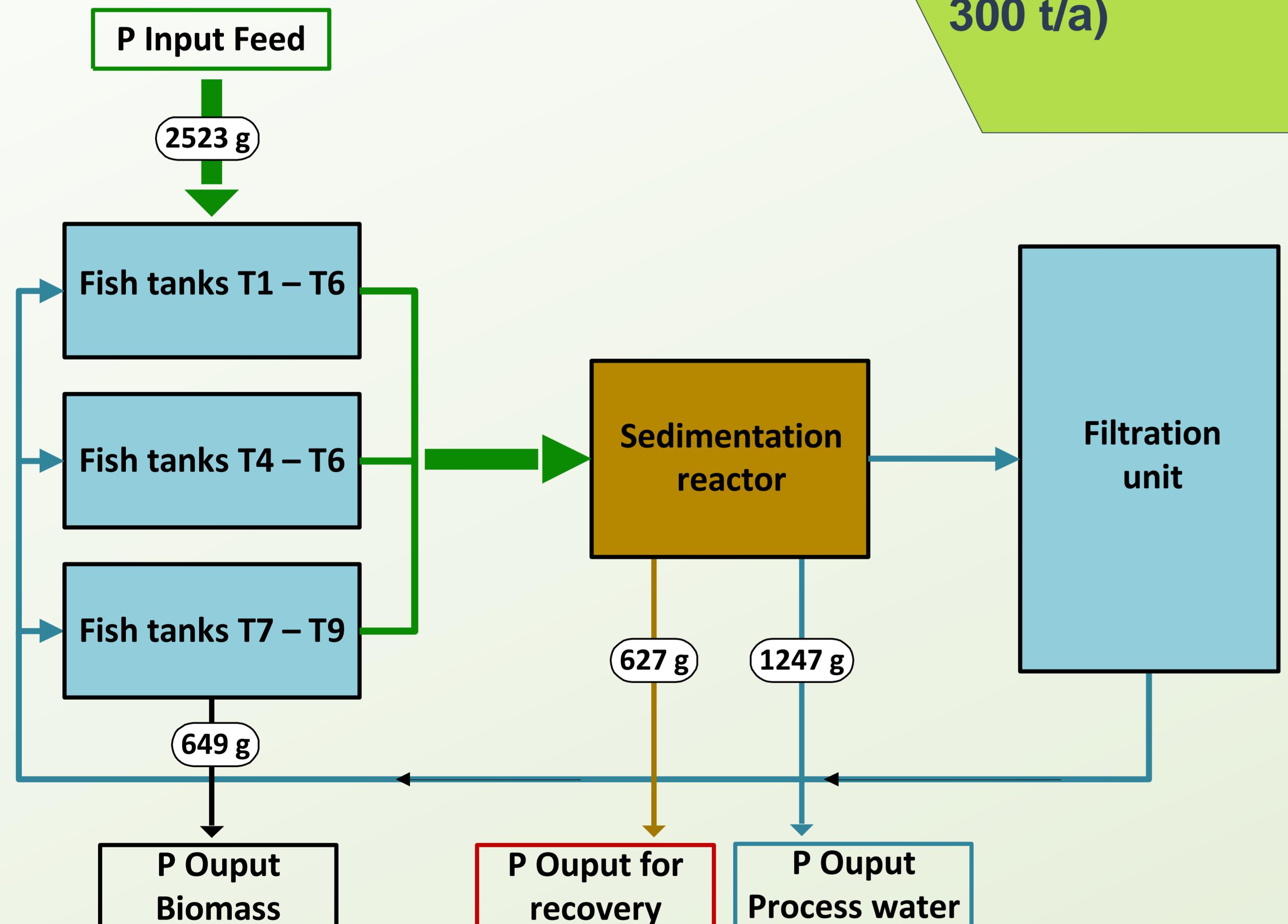
### Intended P-recovery Technology:



### Conclusions:

- ~ 25% P-Output in a production cycle of *C. gariepinus* (increase potential → sedimentation reactor efficiency < 0.5)
- Max P recovery:  $85.9 \pm 3.06\%$
- ~ 0.65 t/a P recovery potential in commercial RAS (*C. gariepinus*, 300 t/a)

### P-flows in a full scale RAS:



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