

Microbial management in Recirculating Aquaculture Systems for sustainable aquaculture production

<https://loom.ly/VxXP440>



Project consortium includes 3 enterprises:



## Portfolio of Outputs and Commercialisation Needs

### Outputs

Anammox bacteria for nitrogen removal from RAS water



TRL 2

Using partial nitrification combined with anammox for removal of nitrogen from Recirculating Aquaculture System (RAS) water.

Heterotrophic assimilation of dissolved N and P from RAS water



TRL 6

The Het-N strategy uses carbon-based biopellets for heterotrophic bacterial assimilation of dissolved nitrogen from Recirculating Aquaculture System (RAS) water. This allows faster start-up of systems supplementing or replacing nitrification and ensures stable water quality and reduced discharge.

### Commercialisation Needs

Control of Dissolved Oxygen levels (Annamox)

Testing in relevant lab and pilot-scale systems (Annamox)

Upscaling and dimensioning (Het-N)

Process design, hydraulic retention time and mixing (Het-N)

Testing other types of biopellets (Het-N)