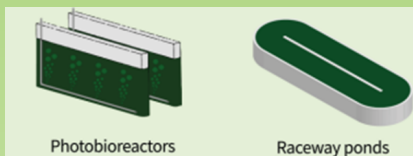


Nutrient Recycling Community



Algae systems webinar

Algae-based systems are highly versatile systems that are applied to different liquid effluents. Algae are cultivated on such waste flows as they use residual nutrients on it to grow. Specific algae strains used for cultivation and operational conditions should be thoroughly selected according to the targeted product.



Potential products that can be obtained

- Biostimulants
- Bio-based fertilisers
- Biofuels
- Bioplastic
- Green Chemicals
- Alternative protein



Algae-based systems are mainly used as a polishing step integrated in the final part of different treatment trains.

Benefits of using algae-based systems for producing fertilising products are limited. However, obtaining more added-value products, such as biostimulants, could make this technology economically feasible.



Innovative applications raised by speakers:

- Several disruption, post-treatment and transformation processes
- Use of algae as flavouring in dairies
- Use of algae-based systems as treatment for off-gases



Key challenges to be addressed:

- Energy consumption
- Production yield in locations with limited sunlight
- Accumulation of salts in recovered water
- Economic feasibility for bio-based fertiliser production, not competitive at the moment
- Projects with high algal productivity are still missing
- Challenges related to the inoculation step