



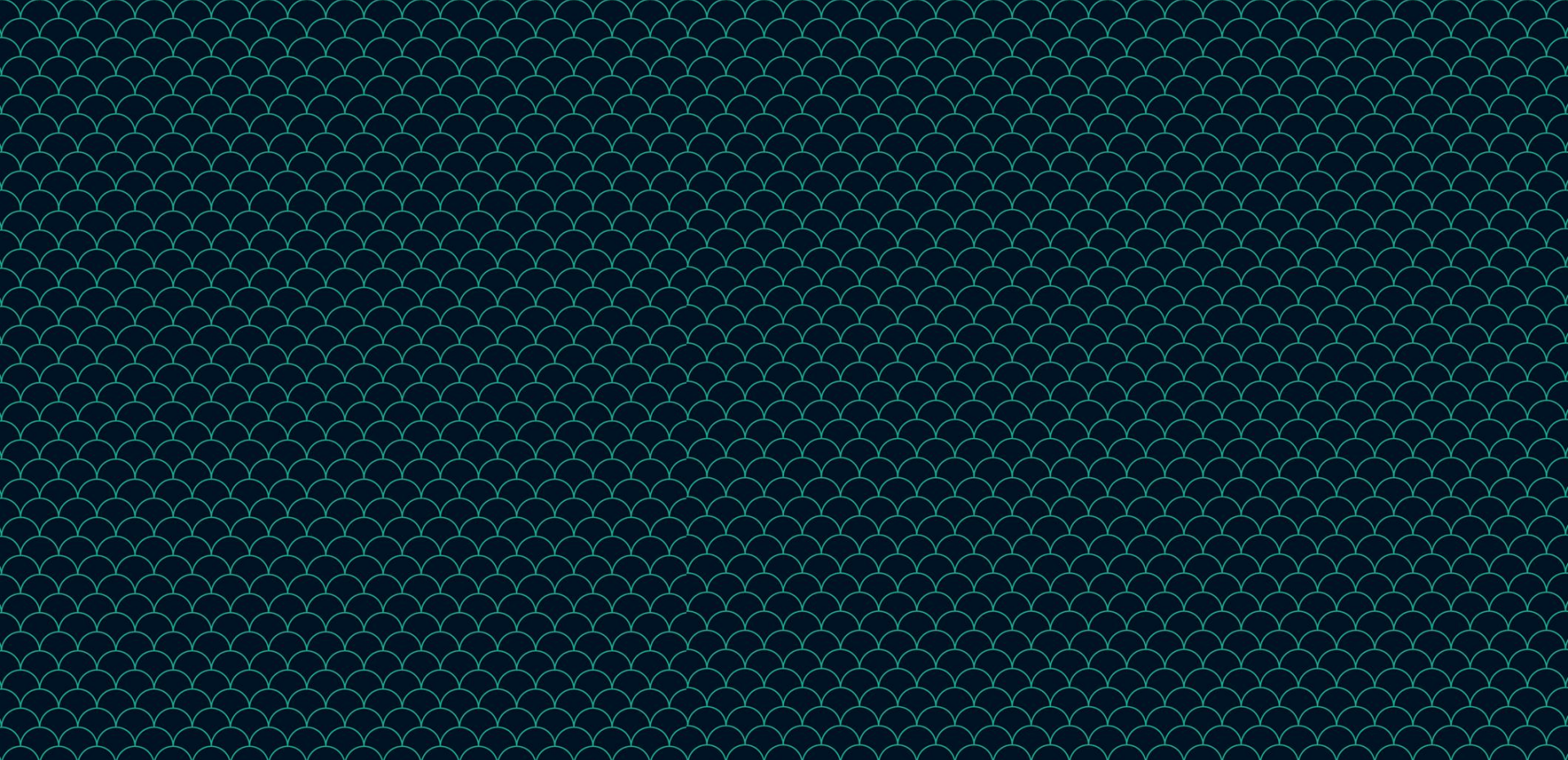
LANDING

AQUACULTURE

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TOWARDS ZERO DISCHARGE IN FISHERIES AND AQUACULTURE

Treatment solutions
for fish production
streams

ABOUT US

Main working areas:

- Research and Commercial Recirculating Aquaculture Systems
- Aquaponics and biofloc systems
- Research, pilot and proof-of-concept systems
- Aquaculture wastewater treatment

R&D focus from 2018

- 1 EU-funded project granted
- 1 Short term scientific mission completed
- Several RVO-subsidized research activities
- Private R&D on water filtration technology – one patent application ongoing

DESLINE™

BLOODWATER TREATMENT IN FISH
PROCESSING VESSELS
[PATENT PENDING]

**Objective: zero discharge of
chilling waters in processing boats**

- Combined dissolved air flotation with oxidation
- Removes colour, organic matter / fish parts, oils and pathogens
- Works under vessel motion
- Compact and movable for vessel installation

LANDING RADIAL FLOW SLUDGE REACTOR

NITRATE REMOVAL AND SLUDGE TREATMENT
FOR FISH FARMS
[PATENT PENDING]

**Objective: zero exchange of
aquaculture waters in intensive fish
farms**

- Single sludge denitrification and sludge thickening in a single device
- Simple reactor with no moving parts
- Removes nitrate from process waters
- Uses in-farm sludges as energy source

DESLINE™

BLOODWATER TREATMENT IN FISH
PROCESSING VESSELS
[PATENT PENDING]

- Commercial prototype deployed
- TRL 7
- Validation: water quality, pathogen inactivation, data logging



LANDING RADIAL FLOW SLUDGE REACTOR

NITRATE REMOVAL AND SLUDGE TREATMENT
FOR FISH FARMS
[PATENT PENDING]

- Commercial prototype under installation
- TRL 6
- Validation: treatment efficiencies, water quality, operational parameters



DESLINE™

BLOODWATER TREATMENT IN FISH
PROCESSING VESSELS
[PATENT PENDING]

DEMONSTRATION VOUCHER ACTIVITIES

- Demonstration partners – Sea
 - Fishing vessels
 - Harvest-bleeder vessels
 - Wellboats
- Demonstration partners – Land
 - Fish processing plants
 - Land-based farms

Goal: advancement to TRL 8 –
commercial model ready for
manufacturing

LANDING RADIAL FLOW SLUDGE REACTOR

NITRATE REMOVAL AND SLUDGE TREATMENT
FOR FISH FARMS
[PATENT PENDING]

- Demonstration partners – RAS
 - Recirculating aquaculture farms
 - Fish hatcheries
- Demonstration partners –
Water treatment
 - Land-based fish farms in general
- Goal: quick jump to TRL 9



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