Protection through filtration

Preventive filtration solutions that protect fish from biological threats without compromising natural water flow or farm operations.

Salar Solutions

Background & foundation

Salar Solutions started from a simple observation: if sea lice can be measured and seen, they can also be filtered.

Andrew Bett spent more than 30 years working in the paper and packaging industry, acquiring knowledge of filtration solutions. At the same time, he had a deep interest in marine biology and published research on the behaviour of Atlantic salmon.

As biological challenges in aquaculture continued to grow, and with increasing pressure on small coastal communities that depend on the industry, Andrew and Colette Bett felt a strong motivation to act.

By combining deep expertise in filtration with knowledge of salmon biology and the lifecycle of sea lice, they introduced a simple but powerful idea: protection through filtration.

This idea became the starting point for Salar Solutions.

Andrew Bett

Founder and CEO, R&D Manager

Colette Bett

Co-founder, financial and media marketing director

Purpose and motivation

Support economically viable coastal and rural communities.

Enable farmers to reduce biological risk without disrupting how they operate today.

Long-term ambition

Change the way salmon farmers approach lice control and environmental threats.

Establish the standard solution for inshore salmon farming globally.

Our ambitions

Aquaculture faces increasing biological threats that reduce yield, increase costs, and create regulatory pressure.

Existing solutions are reactive (treatment after infection), costly and labor-intensive, environmentally challenging, and ineffective at full protection.

01

Sea lice infestations

02

Jellyfish and harmful algal blooms

03

Fish stress and welfare issues

04

High treatment and operational costs

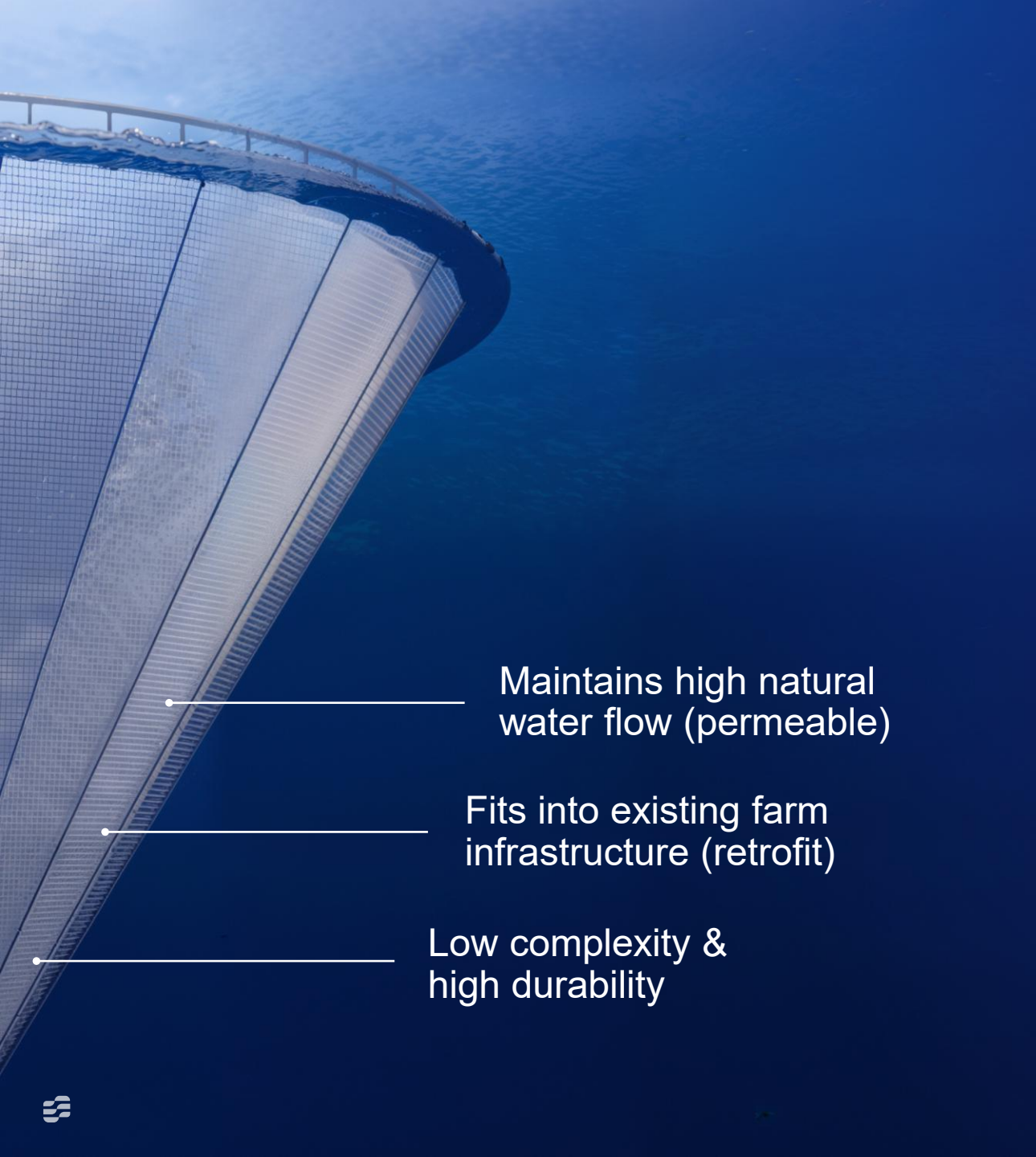
Inshore open-net farms often require several lice treatments per cycle, driving significant cost and operational burden.

10 MNOK PER PEN

The estimated costs of 6 lice treatments per cycle.

1) Professor Arnfinn Aunsmo provided an estimate of NOK 3 per kg per treatment in this presentation last year. Given a pen of 180 000 fish at 3-3,5 kg, this would mean a cost in the range of NOK 1,6-1,9 million per treatment per pen.

2) Walde et al (2023) estimated with a bioeconomic model savings of around NOK 6-7,5 million per pen by avoiding 4 lice treatments during a cycle. That means around NOK 1,5-1,9 per treatment per pen, in line with estimates above.



Protection through filtration

Preventive filtration solutions that protect fish from biological threats, without compromising natural water flow or farm operations.

The **permeable**, fine mesh **screens out** all stages of **sea lice**, micro & macro **jellyfish**, and aggregations of harmful **algal blooms**.

How we solve the problem

Our solution reduces or eliminates costly lice treatments, improves fish welfare and survival, as well as lowers operational complexity.

Low complexity & high durability

Built for harsh inshore marine environments

Multi-layer nylon mesh combining filtration and structural strength

UV treated mesh.

Compatible with mort and waste collection systems.

Easily cleaned with ROV power washing.

Expected lifetime of 10 years.

Retrofit

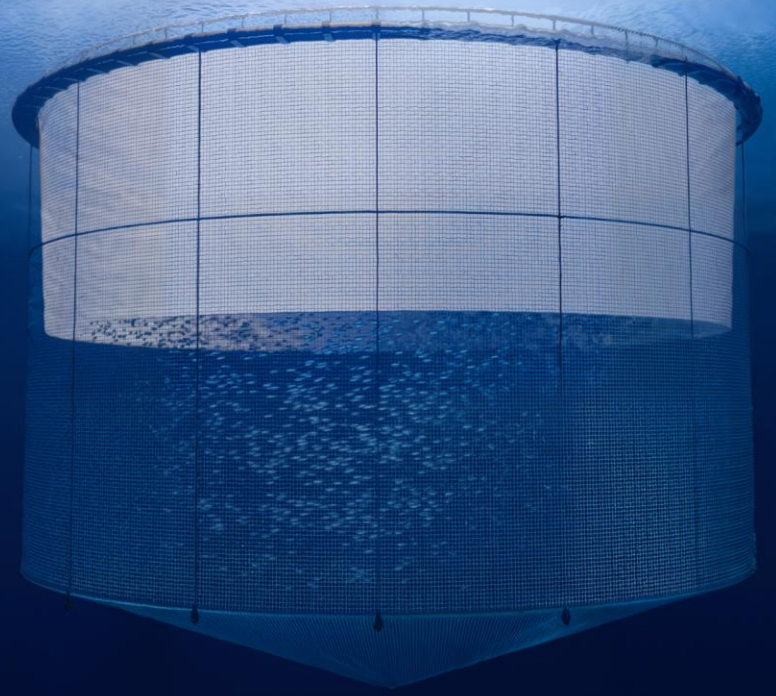
Fits into existing inshore farm infrastructure

Permeable

Maintains high natural water flow

Complete water exchange in less than 3 minutes

Secures high water quality for the fish



Smoltscreen™

Designed for 100% protection against sea lice and micro and macro jellyfish, and reduced exposure to harmful algal blooms.

Closed, permeable filter solution allowing continuous water flow through the enclosure.

Compatible with standard cone-shaped pens (70-160 m).

Fine mesh filtration (150 micron) to exclude all stages of sea lice (including eggs).

Bloomshield™

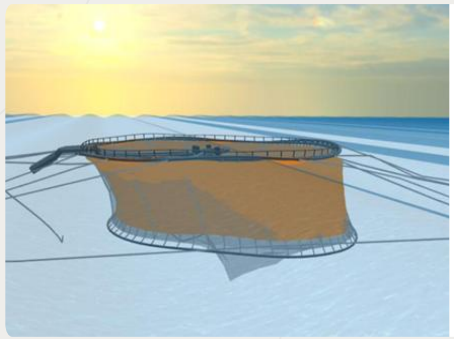
Designed for reduced exposure to sea lice and other waterborne biological threats, including harmful algal blooms (10-15 m depth).

Semi-closed, permeable filter solution allowing continuous water flow.

Configurable with different mesh and depth setups depending on site conditions and biological threats.

Compatible with standard cage geometries of any size (cone-shaped or cylindrical pens).

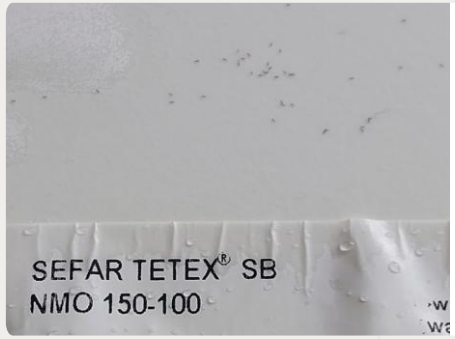
Testing & validation



Aqua structures

Design analysis

Modelling and design analysis of Smoltscreen and Bloomshield.



University of Sterling

Prototype testing

Earliest larval stage of sea lice cannot pass through the 150 micron nylon mesh.

SINTEF

Hydrodynamic testing

Smoltscreen testing. Complete water exchange in less than 3 minutes.

Wave testing meets Hs 1.5 m in 160 m full scale pens.

Marine Institute of Ireland

Proof-of Concept Trial

Smoltscreen testing.

400 salmon smolts, zero lice, zero micro jellyfish, zero morts, good oxygen levels, good gill health.

Next steps

Pre-commercial trials

Full-scale sea trials, testing operational integration requirements and biological performance.

Water exchange and water quality.

Fouling and cleaning.

The solutions will be brought to market through a consortium of trusted industry suppliers & partners.

Strong and scalable business model with revenue driven by patent and licensing.

Agreements of supply in place for Plany AS and sales agent, with formal sub-contractor agreements after pre-commercial trials.

Asset light, scalable without heavy manufacturing.

Product development

Salar Solutions	Research and development
	Owner of designs and patents

Supply & manufacturing

Sefar	Mesh
Plany	Sewing & assembly
NORSmaterials	Connectors
Eldi	Cage nets with connectors

Marketing & sales

Salar Solutions

Plany

Sales Agents

Installation & Cleaning

Local service companies	Installation & high-pressure cleaning
Framo	Mort & waste collection

Support & maintenance

Sub-contractors	Support & maintenance

Market entry

Two complementary market entry strategies: Smoltscreen targets a critical bottleneck in post-smolt production, while Bloomshield enters an established, high-adoption category.

In-sea post-smolt production

Market entry for Smoltscreen

Post-smolt are highly vulnerable in the early sea phase, and sea lice are the main constraint on fish growth and profitability.

Farmers seek to reduce time and lice exposure at sea, but land-based capacity is limited.

Strong demand for effective in-sea protection solutions.

Alternative to lice skirts

Market entry for Bloomshield

Lice skirts are widely used for sea lice control and offer partial protection against algal blooms.

They create a fundamental trade-off between protection and water exchange.

Demand for solutions that eliminate this trade-off.

Our solutions reduce or eliminate costly lice treatments

Smoltscreen

Capital cost of Smoltscreen MNOK 7,3

Cost savings of 100% reduction of lice treatments, one pen, one cycle, 6 treatments

10,2 MNOK

Bloomshield

Capital cost of Bloomshield MNOK 7,3

Cost savings of 60% reduction of lice treatments, one pen, one cycle, 6 treatments:

6,1 MNOK

Milestones

Traction and validation

Industry interest from Nordic and Canadian markets.

Developed and tested in collaboration with research institutes, technical experts and industry advisors.

Dialogues with multiple stakeholders.

Next step: pre-commercial trials

Intellectual Property

Patent for Smoltscreen (Europe, Chile and India).

Patent application for Bloomshield (notified March 2026 by attorney of intention to grant, Europe)

2017

Company established

Salar Pursuits founded in the UK

Early development of filtration-based concepts

2017 - 2020

Tech development & IP

Development of Smoltscreen and Bloomshield concepts

Patent applications filed

Smoltscreen prototype testing versus sea lice larvae and aquaculture specific algae, University of Sterling

2020 - 2023

Testing & validation

Smoltscreen Proof-of-Concept Trial, Marine Institute Ireland

Participation in the JellySafe project (Norsk Havforskningsinstitutt)

Modelling and design analysis (Aquastructures)

2024 - 2025

Investment & commercial trial preparations

Investment from Abacus Group

European patent publication (Smoltscreen)

Hydrodynamic testing (SINTEF)

Industry advisors (legal, insurance etc.)

2026 - 2027

Pre-commercial trials

Secure financing for pre-commercial trials in Norway

Trial deployments: Test biological and operational performance

Preparations for market entry and scaling (brand, website, communication)

Formalize sub-contraction and partnerships

2027 →

Market entry & scaling

Booking enquiries and orders in Norway, Scotland and for Irish customers.

Meeting demand through consortium of suppliers.

Adequate manufacturing capacity to meet the targeted demand and market share is contracted.

Andrew +44 7795 177413

Colette +44 7816 910533

info@salarsolutions.com