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Fearnley Securities and Law Firm Haavind Annual Aquaculture Conference, 25 May 2023



## Fifax in brief

Established in 2012, construction of Eckerö facility started FIFAX. **2014.** Produces sustainably farmed rainbow trout.



Ultra-intensive implementation of recirculating aquaculture system (RAS) – providing solutions to environmental issues with traditional fish farming.



Production facility #1 located in Eckerö, Åland. Full capacity 3,200 tons p.a. System water volume appr. 25.000m3.



1<sup>st</sup> ASC –certified fish farm in the region (Finland-Sweden-Baltic States) producing sustainable and fresh fish to surrounding markets.



Listed (FIFAX) on Nasdaq Helsinki First North since October 2021 as the only listed fish farming company in Finland.







## **Baltic Sea origins**



Finns and Swedes prefer domestic fish, but 70% is imported. Conventional farming has limited growth potential due to sustainability challenges.

**Fresh supply** 

Currently no steady year-round supply of domestic fresh fish. Fifax can at best offer 24-h-delivery from harvest to store.

### Traditions

Åland is a pioneer in aquaculture and provides almost 1/3 of the Finnish farmed volumes. Long marine traditions, tangible experience of the state of Baltic Sea.



# Fifax's implementation of the RAS model





## **Benefits of Fifax's ultra-intensive RAS**

	Feed factor	Water exchange rate, intensity I/kg feed	Pollution P/1,000 tonnes fish	Pollution N/1,000 tonnes fish
Fifax – Ultra-intensive RAS <sup>1</sup>	1 R	0.05%–0.3%, 30–200l/kg	70kg	500kg
Typical RAS	1 I	1.3%–4%, 500–2,000l/kg	~3,000kg	~40,000kg
Flow through	1.2 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	30%–100%, 20,000–50,000l/kg	~5,000kg	~50,000kg
Sea cage	1.25–1.5	$\sim$	~7,500kg	~60,000kg

Source: Fifax information, analysis & estimates, Jacob Brengballe: A Guide to Recirculation Aquaculture 2015 edition, peer environmental permit applications 1) Fifax values correspond to planned full production



## Targeting full production by 2024 after restart



Fifax was approaching full fish stock and output in H1/2022, verifying the company's **RAS concept** 



The June 2022 IHN incident forceda full stop and sanitation of the facility – and provided globally unique learnings of facility operations and bio security

After a successful share issue, Fifax has **restarted** operations, and is targeting full production in 2024 & EUR 125m revenue by 2030

# H1/2022 verified Fifax's concept

- **Biomass was on track to reach full level**  $\checkmark$ without the IHN outbreak
- Amount of harvested fish was stable at  $\checkmark$ 10 000 kilos per week since 9/2021 and on track to expand to 50 000 kilos per week
- **Cumulative customer deliveries from start**  $\checkmark$ of operations 1,3 million kg (HOG)





Sales & marketing strengthened



**Fish farming** operations ramped up

**ASC** certificate for sustainable aquaculture as the first farm in Finland



*"During the first half of 2022 we* succeeded in ramping up our fish farming close to full capacity and generated almost as much revenue as during the whole previous year. We expanded our customer base, faced rising demand and received good feedback for delivered fish."







# Learnings from the incident and sanitation project

Industry has not prepared for this type of events • Prior experience limited, available literature and advice superficial

### Facilities and technologies are not planned for this

### Minimize likelihood for incident and limit impact risk is realized

- Cannot be too paranoid with biosecurity
- Industry trend towards larger units means larger risk
- Resilience and diversification are virtues

### Plenty of room for research and development

- Approaches to RAS biosecurity and overall risk management
- Preparedness to manage full operational stop
- Solutions that facilitate both continous maintenance and incident handling

• Established RAS facility and technology design prioritizes stable continuous operations • Rapid, safe, compliant removal of full fish stock and complete overhaul has different drivers





### Our operational experience and insights in sanitation and biosecurity benefit the whole industry

### LEADING OPERATIVE EXPERIENCE

- $\checkmark$  Hands-on experience of construction, ramp-up and operation of one of the first large-scale RAS facilities
- ✓ Advanced approach to sustainability meeting demanding targets
- Proven high-quality deliveries at volume

- impact incidents



### **LEARNINGS FROM SANITATION**

 $\checkmark$  First virus sanitation in a large RAS implemented successfully in close collaboration with authorities

✓ Advanced insights in RAS biosecurity, deepened knowledge of RAS process and technology

 $\checkmark$  Valuable for improving operations, managing risk, and avoiding high-



### UNIQUE GAINED EXPERIENCE

- $\checkmark$  Valuable for improving operations, avoiding high impact incidents, and handling special situations.
- $\checkmark$  Encouraged by this, we are starting an advisory business to help fellow projects in the growing industry to succeed.
- ✓ Contact us: www.fifax.ax







### Fifax next steps: Restart and expansion of production





# **Financial and operational** targets

Short-term (2023)	<ul> <li>Hatchery and fingerling unit in full production and first unit started, with investments in increased biosecurity performance completed in the units</li> <li>Advisory and licensing business that commercially ut RAS know-how is established</li> </ul>
Mid-term (2024)	<ul> <li>Investments in improved biosecurity and performance units of the facility completed</li> <li>Full fish stock and full production level corresponding output volume of approx. 3 200 tons live weight reacher</li> <li>Continued development of advisory and licensing bus</li> </ul>
Long-term (2030)	<ul> <li>Expansion of operations through additional production</li> <li>Significant revenues from advisory and licensing busing</li> <li>Revenue exceeding 125 million euro</li> <li>EBITDA exceeding 25 percent of sales</li> </ul>



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# Why invest in Fifax?





**Pioneering real-life experience of operating a large-scale RAS** and delivering high-quality Rainbow Trout



Advanced insights in biosecurity and sanitation



Ultra-intensive implementation of RAS minimizes environmental impact – ideal for fragile environments



Targeted capacity expansion amplifies the positive impact of a proven concept





# Better fish for the world.

