

**Bakkafrost presentation** A world-class company in the salmon industry

Capital Markets Day – Part 1

Scotland 6 June 2023







# Bakkafrost - Faroe Islands

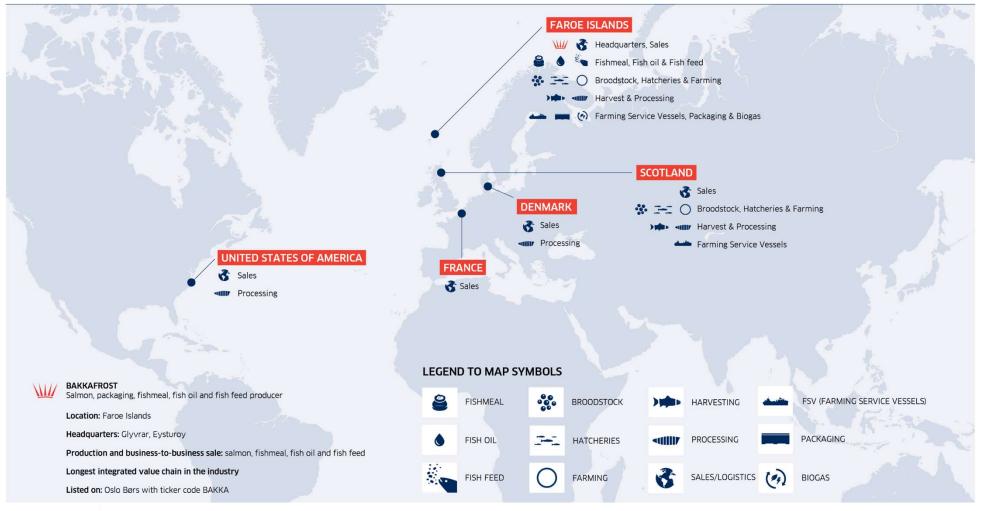
# Høgni Dahl Jakobsen

CFO





## **BAKKAFROST – OVERVIEW**







## **BAKKAFROST – FARMING SITE OVERVIEW**





## **OUR PILLARS AND VALUES**





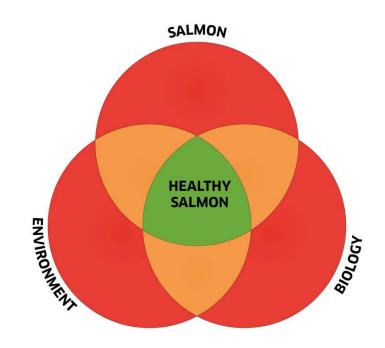




## FARMING SALMON IS A VULNERABLE PROCESS

## Good health is maintained when:

- The salmon is robust
- Environment is optimal and threats mitigated
- Biological threats are well controlled







## SALMON HEALTH HINGES ON UNBROKEN CHAIN OF RESOURCES IN THE VALUE CHAIN

Farming process highly exposed to external variables

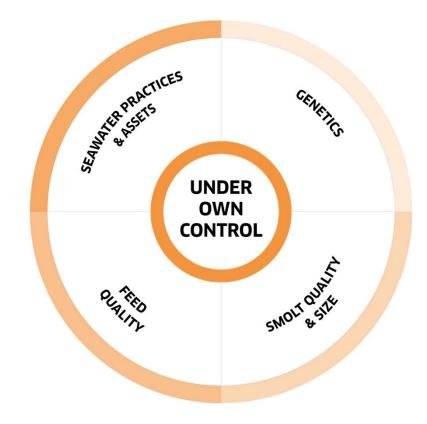
Unbroken chain of resources required to control process

Glitch in resources can cause material adverse effects, e.g.

- Poor egg and smolt quality
- Insufficient quality of assets and technology
- · Absence of analysis and due action
- Vessels capacity for urgent treatment and transportation
- · Lack of processing capacity to handle emergency harvest

Challenges normally pile up during autumn months

- Requirement for abundant resources most of the year
- · Reliance on third party represent risk and complexity





## STATE-OF-THE ART AND FULLY INTEGRATED VALUE CHAIN STRONG CONTROL IN THE FAROE ISLANDS



• FISHMEAL FISH OIL FARMING PROCESSING PACKAGING SALES/MARKETING FISH FEED BROODSTOCK HATCHERIES BIOGAS FSV HARVESTING FCR Employees ~1.06 ~1,800 in the Faroes Converting low food value proteins into high volume & value healthy protein Low-value marine raw materials Fish oil and meal Salmon feed Revenue 2022 (DKK) 100% ASC ~7.1bn certified in the >+++++++++++C Faroes 750 tonnes (edible vield) Op.EBIT 2022 (DKK) Scope 1,2 & 3 ~1.71bn emission 50% Broodstock and hatcheries Salmon farms Processing Market cap reduced ~NOK 44bn by 2030 \$4.0bn 2,200 tonnes (edible yield) Harvest volume Net Zero 2023E by 2050 98,000t



Sustainable Salmon

## VALUE CHAIN INSIGHT – FISHMEAL, -OIL & FEED COMPETITIVE ADVANTAGE BY RICH ACCESS TO MARINE RAW MATERIAL

## Strategically well positioned near fishery

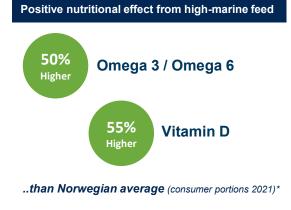


## Good sourcing of marine raw material



## High marine content = Low Carbon Footprint

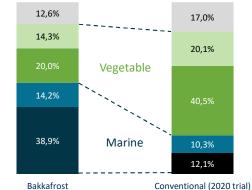




Source: Sjømatdatabasen, Bakkafrost

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## Bakkafrost feed vs. conventional feed



Conventional (2020 trial)

■ Marine protein ■ Marine oil ■ Veg. Protein ■ Veg. Oil ■ Other

## Bakkafrost feed performance vs. plant-based

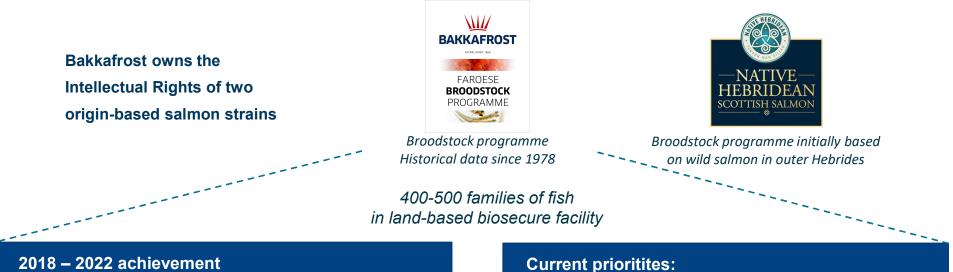


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## **VALUE CHAIN INSIGHT - BROODSTOCK OWNERSHIP OF UNIQUE SALMON STRAINS**





Identification of genetic variations (SNP's) associated with:

- ✓ IPN (Infectious pancreatic necrosis)
- PD (Pancreas Disease)  $\checkmark$
- ✓ PMCV (Piscine myocarditis virus)
- ✓ HSMI (Heart and Skeletal Muscle Inflammation)
- ✓ Early maturation
- ✓ Pigment

Identification of genetic variations (SNP's) associated with:

□ Sea lice resistance

(detect QTL's associated with sea lice count)

- Develop a pedigree using available genomic data
- U Weight vs. genetic variation, correlation and prediction



## VALUE CHAIN INSIGHT – HATCHERIES FOR SMOLT LARGE HIGH-QUALITY SMOLT ARE THE KEY TO GROWTH AND IMPROVEMENT



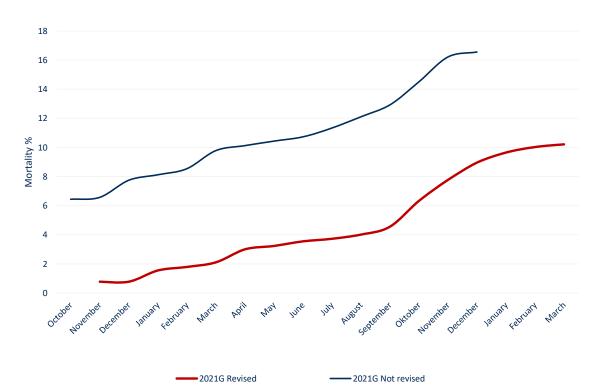




## VALUE CHAIN INSIGHT – HATCHERIES FOR SMOLT CRACKING THE CODE FOR HIGH-QUALITY LARGE SMOLT

## 54% lower mortality with revised production regime

- · Production of large smolt is complicated
- First generations in the Faroes did not perform as intended
- Production regime for large smolt has been revised and fine tuned on a number of parameters
- **54% lower mortality** in the seawater phase after revision of large-smolt production regime (2021G vs. 2020G)



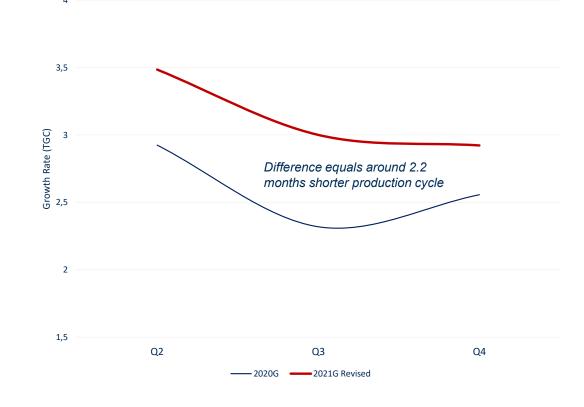
Effect of revised smolt production regime on accumulated mortality (2021G)

BAKKAFROST VALUE CHAIN INSIGHT – HATCHERIES FOR SMOLT IMPROVED GROWTH RATE IN H2 AFTER REVISING SMOLT PRODUCTION REGIME



During the autumn, previous smolt generations had low growth rate, higher mortality and more maturation issues

25.8% increased growth
reduced maturation
lower mortality
in H2 with revised production regime



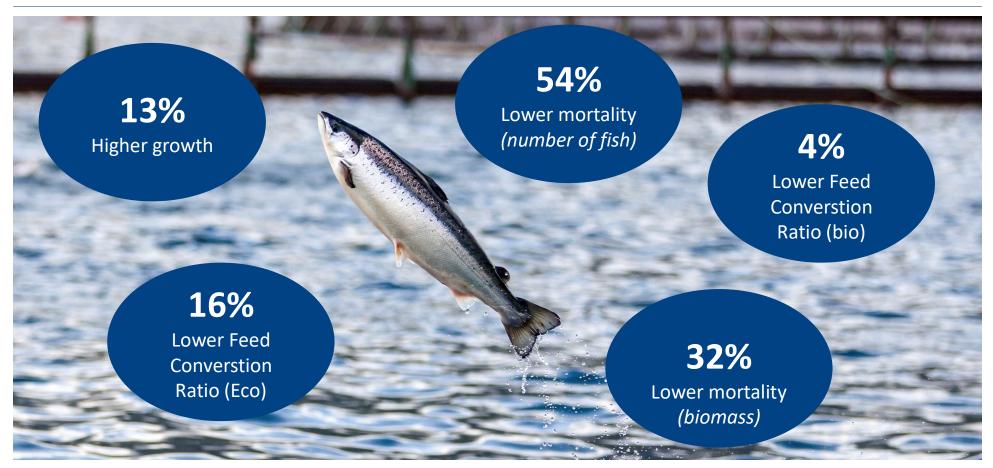
**Growth rate (TGC) Q2-Q4** 2020G vs 2021G Revised production regime

Tasty, Healthy & Sustainable Salmon



## VALUE CHAIN INSIGHT – HATCHERIES FOR SMOLT IMPROVEMENTS OF LARGE-SMOLT QUALITY (2020G VS. 2021G)







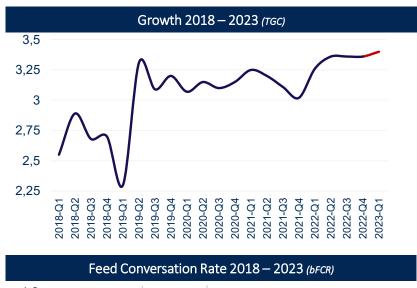
## VALUE CHAIN INSIGHT - FARMING CONTINUOUSLY IMPROVING GROWTH AND REDUCING THE FEED CONVERSION RATIO

## Good growth rate ✓

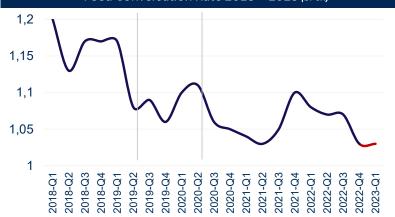
- Very strong development in growth
- Indication of good fish welfare and strong biology

## Low Feed Conversation Ratio FCR ✓

- Strong development continues
- All time low 1.03 Q4/22 continues into Jan 2023 for harvested fish



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## VALUE CHAIN INSIGHT – FARMING INCREASING SURVIVABILITY AND REDUCING SEA LICE

## High survival rate\* ✓

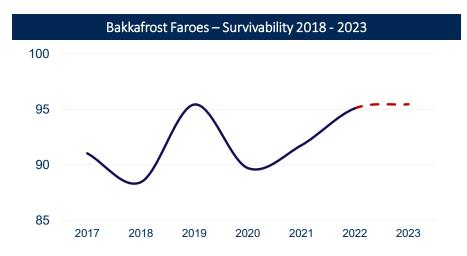
- Survival rate ~95% in 2022 improved from 91.76% in 2021
- Our goal is above 95% survival to harvest
- \* GSI calculation method 12m rolling

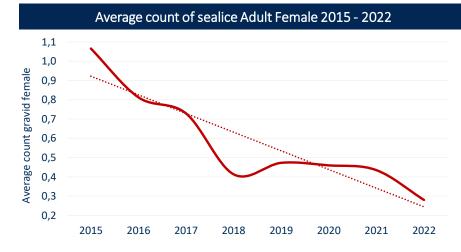
## Sea lice numbers **all time low** ✓

- Dropped to 0.28 in 2022 from 0.45 in 2021
- The new FSV Bakkafossur brings dual treatment systems (freshwater and sealice removal) adding more sustainable solutions to our toolbox



Tasty, Healthy & Sustainable Salmon

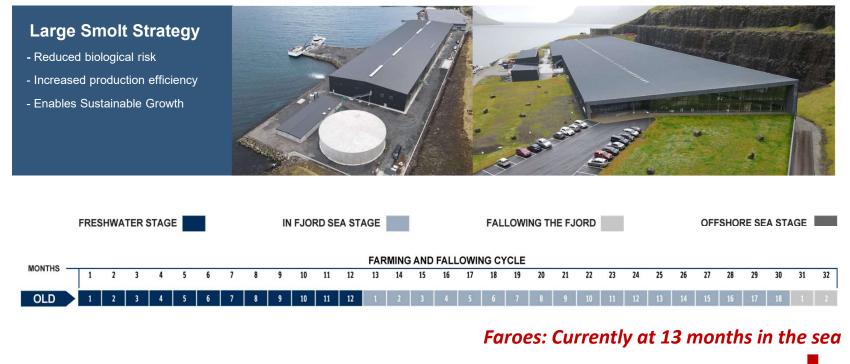


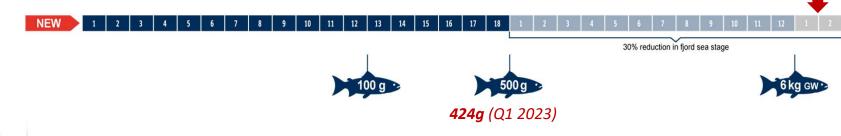


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Good capacity with treatment vessels, wellboats and now also with unique dual-treatment systems:

- Combined treatment for gill-related issues and sea lice removal
- Gentle treatment
- Bakkafossur is able to do pretreatment sorting of fish
- · Very low mortality
- High clearance of sea lice (close to 100%)

## Vessels

#### M/S Bakkafossur



- Combined live fish carrier and utility vessel
- 7,000 m<sup>3</sup> capacity for freshwater treatments for improved gill health and option for enclosed treatments with antiparasitic agents
- Two-line flushing delousing system will be added in April 2023

#### M/S Hans á Bakka



- · Combined live fish carrier and utility vessel
- 3,000 m<sup>3</sup> capacity for freshwater treatments for improved gill health





- Utility vessel
- Four-line thermic system for luke warm water treatment
   Six-line flushing delousing system

#### M/S Róland



- Utility vessel
- · Four-line thermic system for luke warm water treatment

#### M/S Bakkanes





· Four-line flushing delousing system

#### 4,000 m<sup>3</sup> vessel in Scotland



- Combined live fish carrier and utility vessel
- 4000 m<sup>3</sup> capacity for freshwater treatments for improved gill health
- One-line flushing delousing system

#### 2,500 m<sup>3</sup> vessel in Scotland



- Combined live fish carrier and utility vessel
- 2500 m<sup>3</sup> capacity
- One-line flushing delousing system







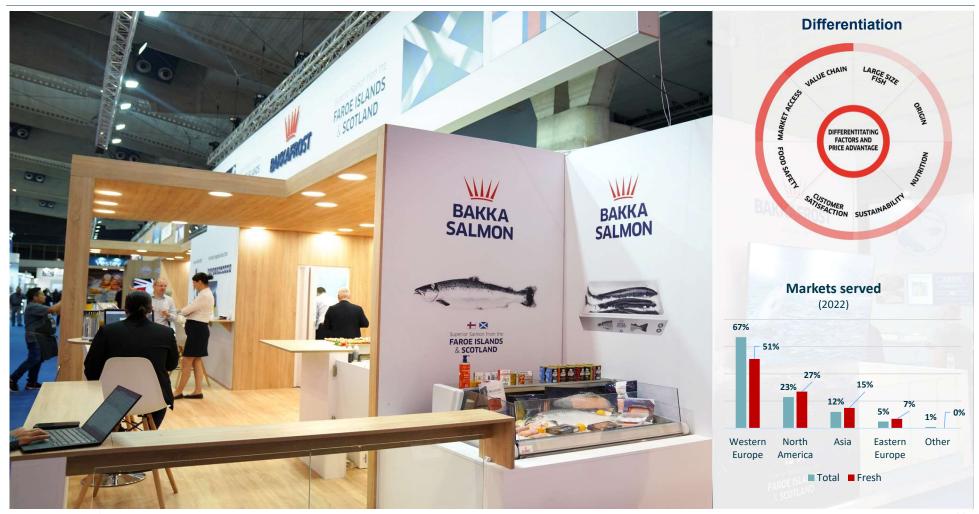


## VAP production capacity in the Faroes equates to 40,000 tonnes HOG



## VALUE CHAIN INSIGHTS - SALES & LOGISTICS ONE SALES TEAM COVERING ALL MARKETS







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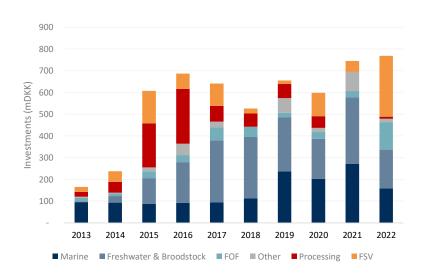
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## **INVESTMENTS IN A STATE-OF-THE-ART VALUE CHAIN IS KEY TO PERFORMANCE** 5.6BN DKK OF INVESTMENT IN THE FAROES SINCE 2013



- **Hatcheries** RAS and advanced vaccination technology delivering on the large-smolt strategy
- **Farming equipment** *Heavy-duty, "weather-resistant" & predator proof*
- Fleet of FSV's Improving fish welfare without compromising environment (freshwater and non-chemical)
  - **Feeding systems** Technologically advanced
  - **Digitalisation** Continuous monitoring fish welfare and optimizing value creation

## 5.6bn DKK invested in the Faroe Islands since 2013



Bakkafrost's high-quality assets has a positive impact on fish welfare







## **TODAY** STATE-OF-THE-ART ASSETS IN THE FAROE ISLANDS







# Bakkafrost in the past Odd Eliasen Managing Director





## IT WAS VERY DIFFERENT IN THE PAST

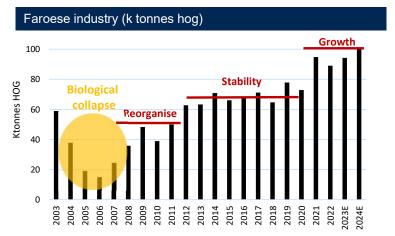




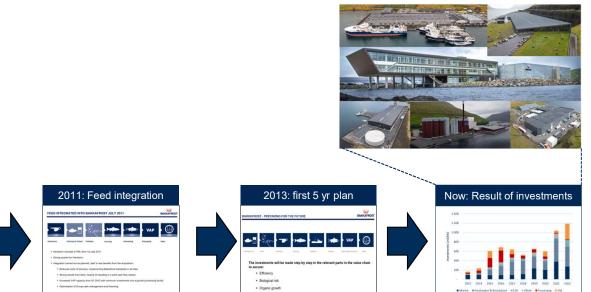
## **20-YEAR HISTORY:** *READY, STEADY – GO!* RISING FROM THE DUST, GAINING STABILITY AND THEN GROW AND OUTPERFORM

2010: value chain focus





- The Faroese salmon industry re-organised after biological meltdown
  - Industry consolidation to three operators
  - Regulatory and operational framework changed
- Successful rebuild of industry to sustainable level of 60-70kt (HOG)
- Another step-up through large smolt and abundant treatment capacity

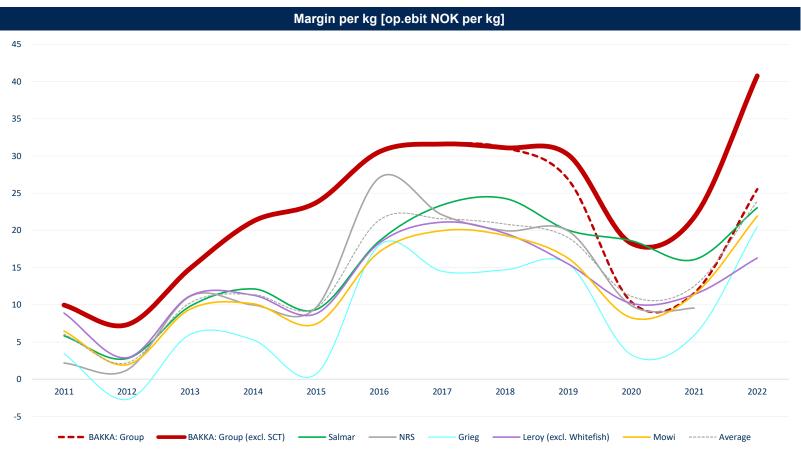


2004-2008 consolidation





## IN PAST DECADE, BAKKAFROST DELIVERED BETTER MARGINS THAN LISTED PEERS



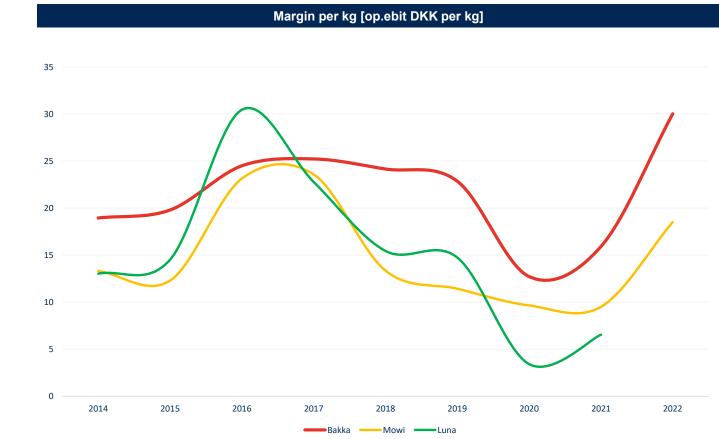
Source: Financial reports



## BAKKAFROST ALSO PERFORMS BETTER THAN PEERS IN THE FAROE ISLANDS

Record high margin dkk 17.31 per kg average 2014 - 2022

- Bakka dkk 21,58 /kg
- Luna dkk 15,12 /kg
- Mowi dkk 14,98 /kg



**HEALTHY LIVING** 

Source: Annual reports



## A RECENT CASE-STORY: SUÐUROY TURNAROUND AS PROOF-OF-CONCEPT

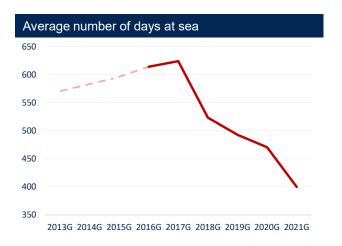
- In the past, Suðuroy was one of the weak performing area in the Faroe Islands
- Many thought it was not viable to farm salmon in Suðuroy
- In 2016, Bakkafrost took over all farming sites in Suðuroy
- Since then, Bakkafrost has changed everything
  - Farming equipment
  - Vessels
  - Feed
  - Large high-quality smolt
  - Implemented Bakkafrost best practices
- ... except the environmental foundation dictated by nature



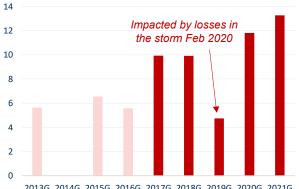


## SUÐUROY = PROOF OF CONCEPT

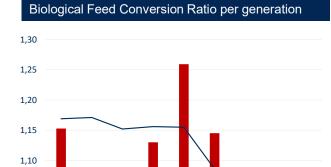
NOW ONE OF THE BEST



## Produced tonnes per day



2013G 2014G 2015G 2016G 2017G 2018G 2019G 2020G 2021G



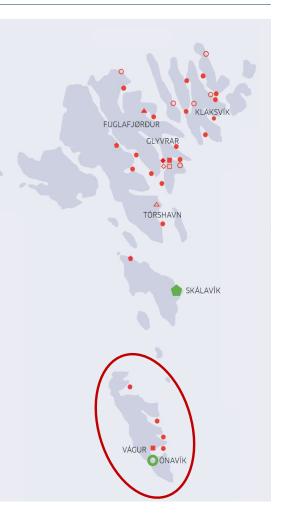
2013G 2014G 2015G 2016G 2017G 2018G 2019G 2020G 2021G

------ Biological FCR Bakkafrost

Biological FCR Suðuroy

1,05

1,00



**HEALTHY LIVING** 

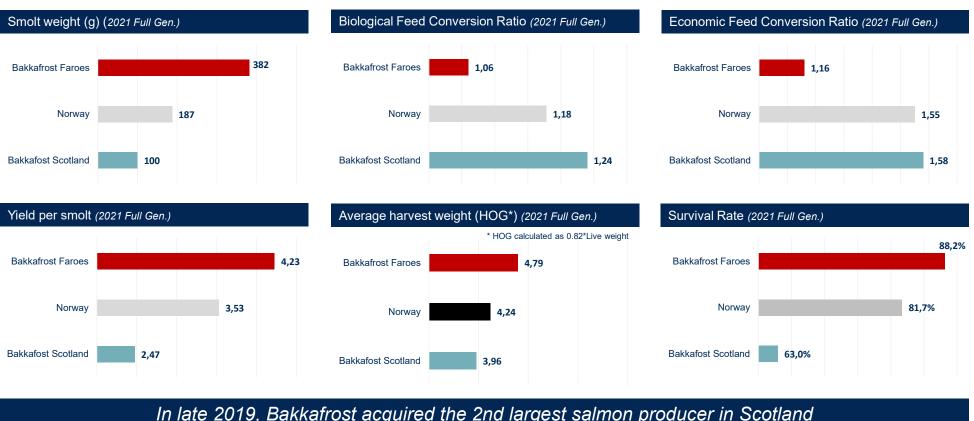
### Growth (TGC per generation)

3,6 3,4 3,2 3,0 2,8 2,6 2,4 2,2 2,0 2013G 2014G 2015G 2016G 2017G 2018G 2019G 2020G 2021G Tasty, Healthy & Sustainable Salmon



## PERFORMANCE

BEST PRACTICES & WELL-INVESTED VALUE CHAIN DRIVES PERFORMANCE



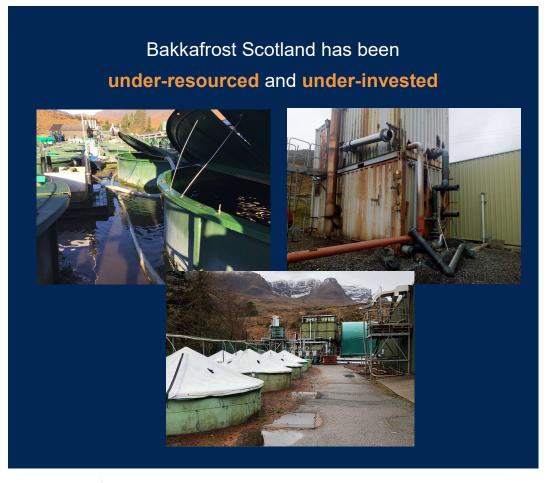
In late 2019, Bakkafrost acquired the 2nd largest salmon producer in Scotland ...a company with potential for significant improvement

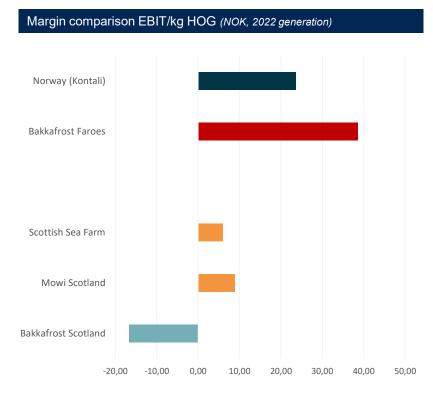
Tasty, Healthy & Sustainable Salmon **HEALTHY LIVING** 



## SCOTTISH INDUSTRY AND BAKKAFROST SCOTLAND GENERALLY LAGGING BEHIND A POOR PERFORMANCE IS A GOOD STARTING POINT FOR A TURNAROUND







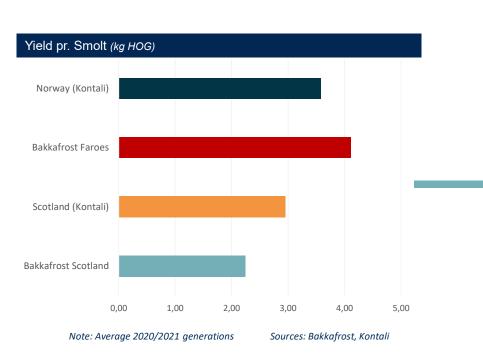
Sources: Bakkafrost, Kontali, Company reports



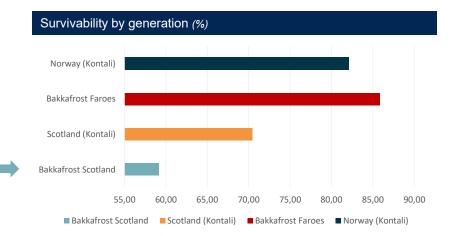
## **YIELD PER SMOLT**

HIGH SURVIVABILITY AND HARVEST WEIGHT ARE FUNDAMENTAL

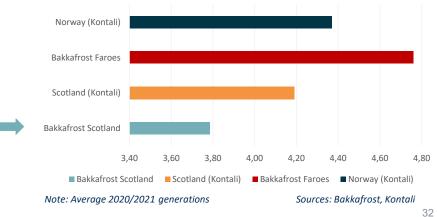
The main cause for low yield per smolt is low survivability and low average harvest weight







Average harvest weight by generation (kg HOG)







## THE UPSIDE IN SCOTLAND IS SIGNIFICANT

## **Requires:**

12,00

11,00

10,00

9,00

8,00

7,00

6,00

5,00

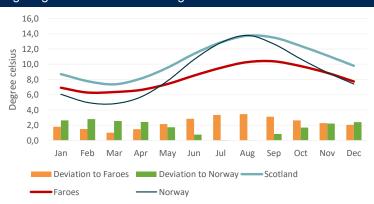
Tasty, Healthy & Sustainable Salmon

2 kg

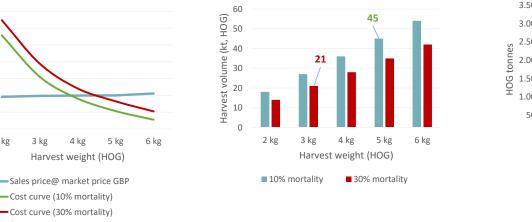
Price / cost GBP per kg (HOG)

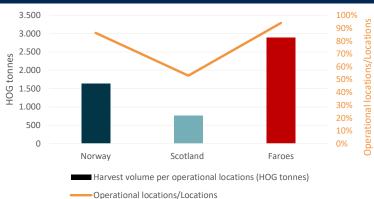
- Good control of biological threats
- · State of the art farming and surveillance equipment
- Sufficient treatment and transportation vessels
- · Reduced seawater exposure with large smolt

Higher growth in Scotland during the winter with warmer seawater



#### Scotland: Highly consolidated industry, but low capacity utilisation





Sources: Bakkafrost, Kontali

Illustrative: Effect of mortality and average harvest weight on cost and harvest volume

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