CREATING VALUE IN VOLATILE MARKETS

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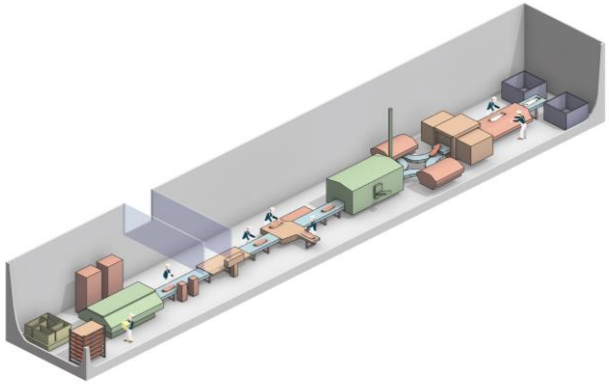
HOW HUON CREATES VALUE

GROW THE BEST QUALITY FISH

SELL FOR THE HIGHEST PRICE POSSIBLE

DO IT SUSTAINABLY

PRODUCTION AND PROCESSING EFFICIENCY



BRAND INVESTMENT

HOW DOES HUON MAINTAIN QUALITY WHILE LOWERING COSTS?

HATCHERIES AND FISH HUSBANDRY

Hatcheries

- Huon has moved from traditional flow through hatcheries to growing most fish in fully recirculating hatcheries
- This has helped increase the size of fish and shorten the growing period in a more controlled environment
- Industry selective breeding programme providing positive results for AGD resistance and improved growth rates.

Springfield Hatchery

Meadowbank Hatchery

Forest Home Hatchery

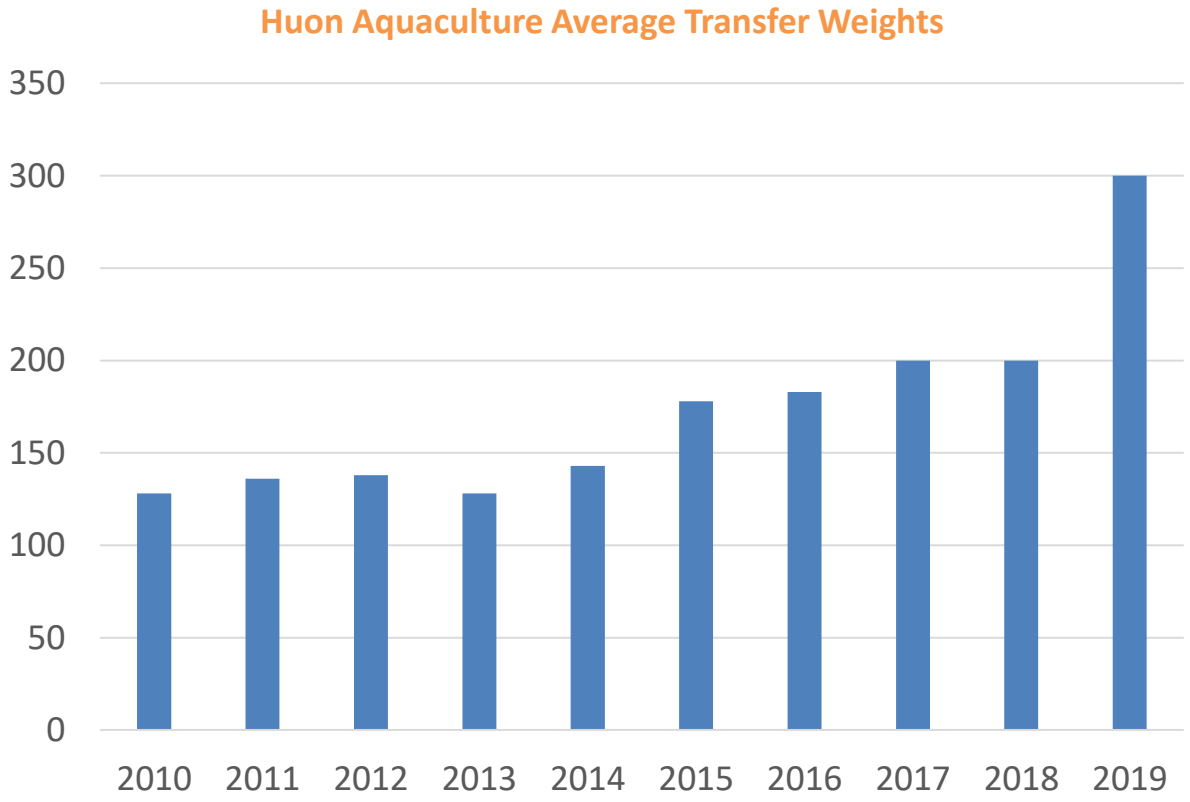
FUTURE: WHALE POINT

Hatcheries

New facility to be built to grow 500-600g smolt.

- **A NEED FOR:**
  - More smolt to support offshore expansion
  - Bigger smolt to reduce lifecycle production costs
- **RECIRCULATION TECHNOLOGY:**
  - Proven best fish welfare and performance
  - Low water requirement
  - Treat and manage waste

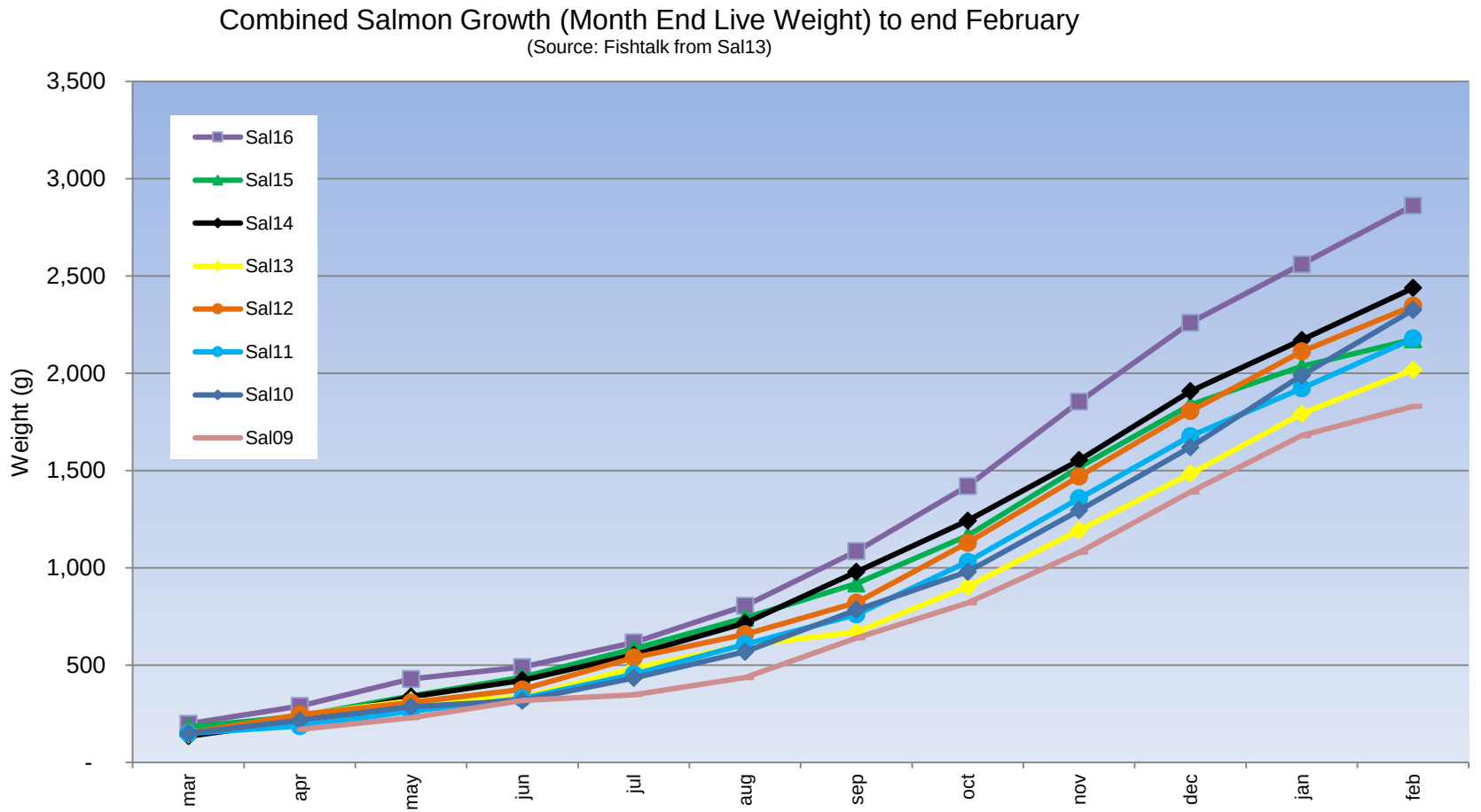
Aim is to have the fish in the sea for less than 12 months!



USING THE BEST FEED POSSIBLE

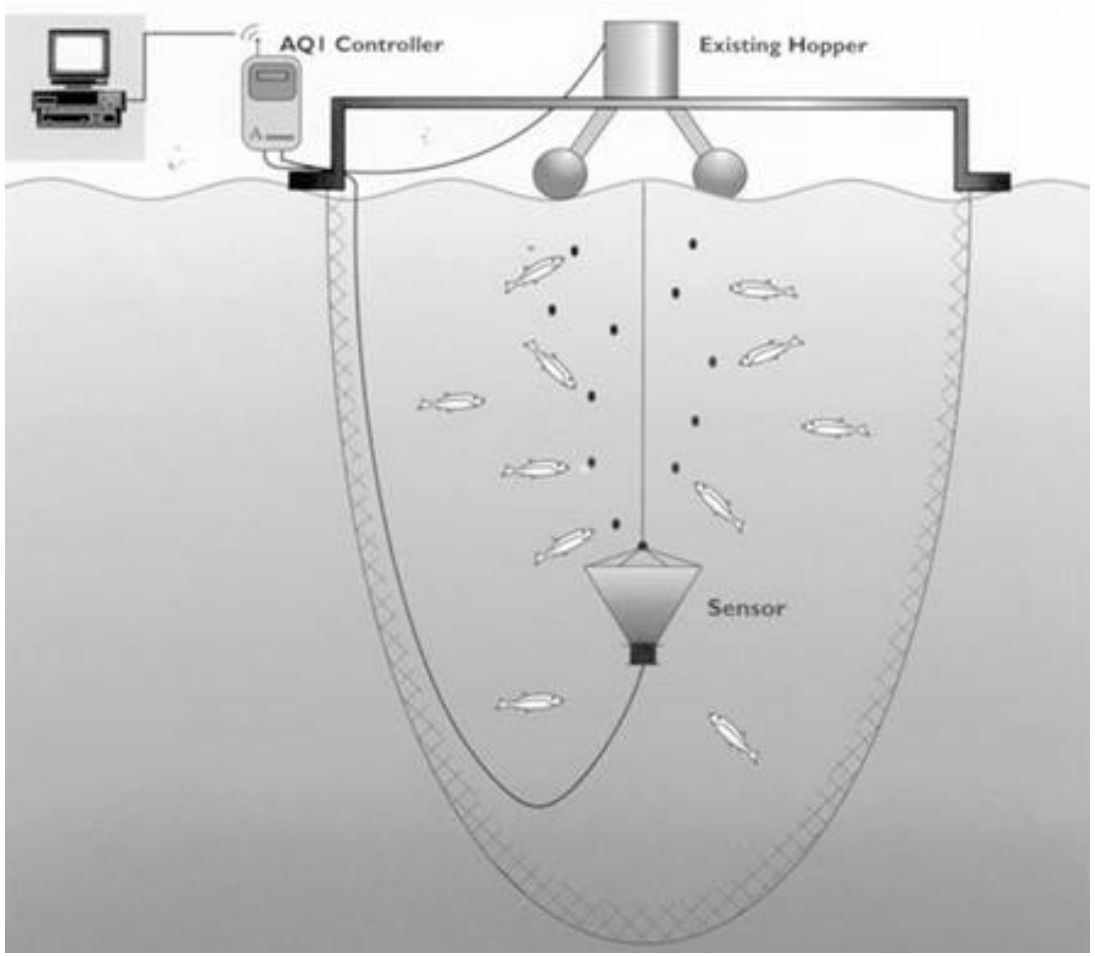
- Huon runs a feed trial facility, comparing diets from different feed companies
- This trial facility has enabled us to improve fish performance while lowering the marine content in feed
- Unfortunately one of our feed supplier's quality had dropped off
- These quality issues resulted in a substantial reduction in the performance of Huon's fish
- However since renegotiating our feed supply fish performance has improved dramatically

USING THE BEST FEED POSSIBLE



FEEDING TO APPETITE

- Feeding to appetite has always been at the core of our feeding strategy
- We worked with AQ systems to develop technology, utilising infrared sensors to detect pellets falling through the water column
- Principal of giving every fish every opportunity to eat (when they want it) whilst minimising wasted feed and nutrient loading on the seabed
- Individual feed hoppers requiring refilling regularly (able to feed every pen at the same time).



FEEDING TO APPETITE - NOW

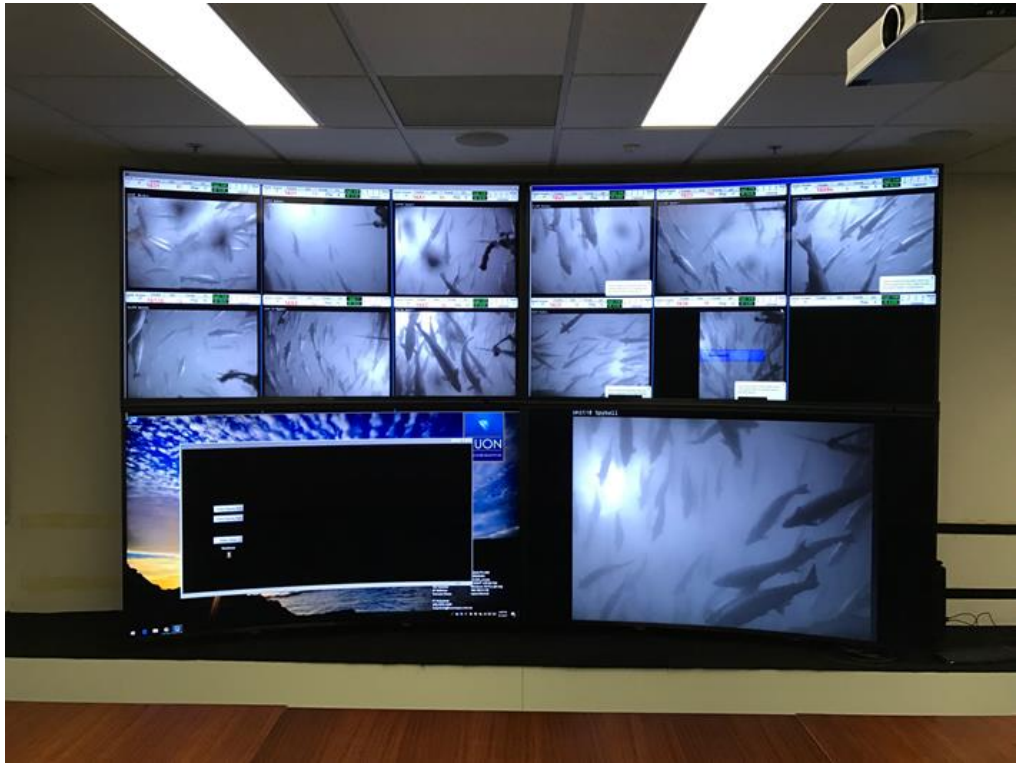
- Replicating our feeding ethos at scale
- Feeding all pens direct from the barge at the one time
- Better spread of feed through Huon designed and patented water-driven feed spinners
- Adaptive feeding system utilising video pellet recognition software

FEEDING TO APPETITE

FEEDING: FUTURE

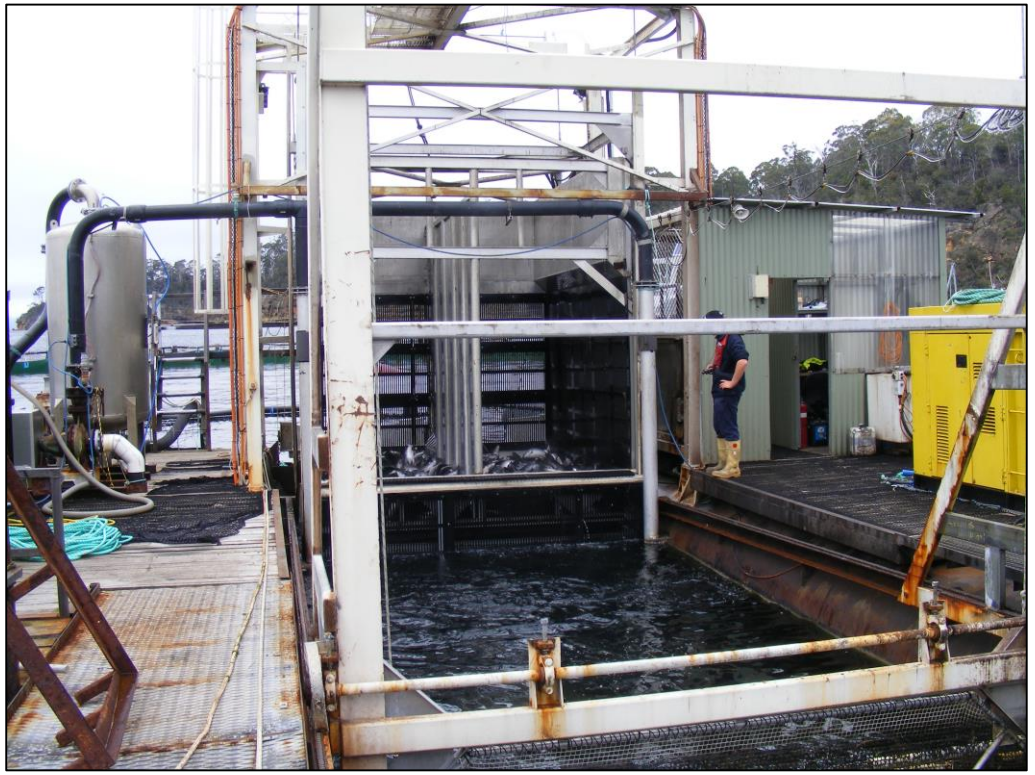
- Future of feeding lies in centralising Huon's operations when it comes to feed monitoring
- This is due to the move to more offshore sites. Safety of employees is paramount, this centralised system will reduce the need for Huon staff to work on the pens in rough weather
- Cameras mounted to a winch system will be able to monitor pens from all view points
- This allows for net inspections, mort collection, environmental monitoring, data collection and surveillance of the sites
- All feeding can be done remotely
- Bathing, net cleaning, filling feed barges and other site maintenance can then be undertaken on calm days

Hobart Control Room



BATHING

- Started with small raceways to transfer fish between pens
- Twin Vacuum Pump – biggest in the word. Each tank fits in a 40 foot container
- Constant towing of fresh water liners was required for this method



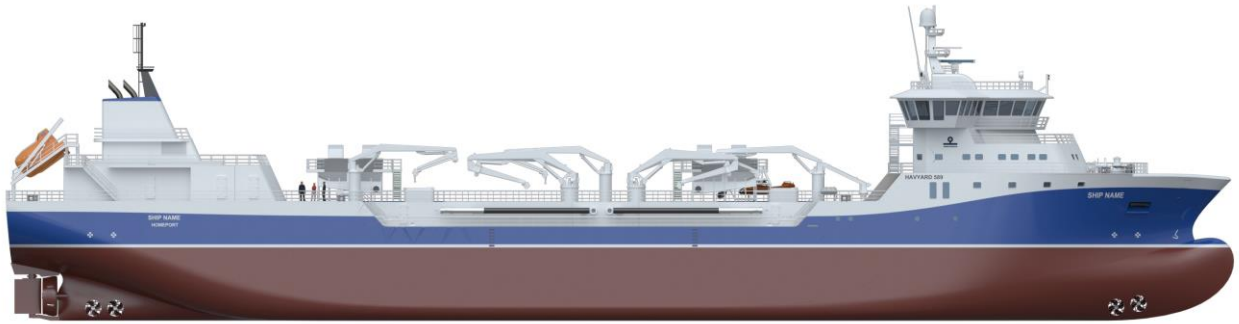
BATHING: NOW

RONJA HUON

- 75.8m in length
- Three tanks with total gross volume of 3,150m3. Treatment or net volume of 3,000m3
- RSW system capable of chilling water at > 1.5°C/hr
- Oxygenation and CO2 stripping systems
- Vessel is capable of holding up to 300t of live fish in closed system Continuous monitoring and logging of oxygen concentration, CO2 concentration, temperature, pH, salinity, conductivity, and ORP using integrated sensors.
- Onboard oxygen production
- Automated cleaning and disinfection systems to maintain system hygiene
- Capability to transfer smolt and harvest fish, and to conduct freshwater and hydrogen peroxide treatments
- Can pump approximately 300 tonnes an hour

BATHING: FUTURE

- New 117m well-boat
- 4 fish tanks totalling 7,500m3
- Additional ballast and biomass water will mean a total capacity of 12,000m3
- On board reverse osmosis plant which can replace 10% of the water per hour
- Better CO2 stripping will allow the vessel to do the entire site before disinfecting and refilling occurs
- Capacity to bathe an entire 240m in one go
- Faster disinfection process to keep the vessel working more often

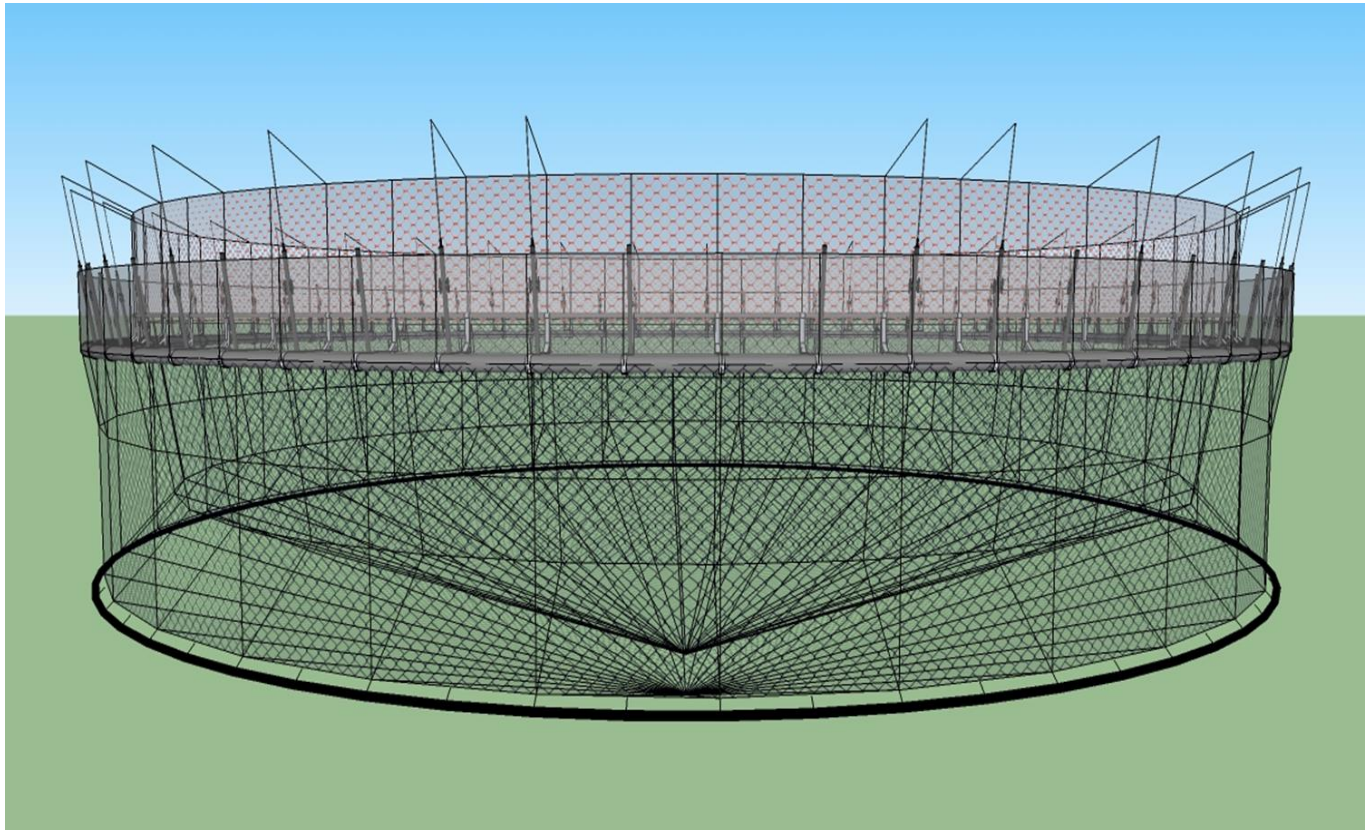


NEW WELL-BOAT: RONJA STORM

KEEPING PREDATORS AWAY: PREVIOUSLY

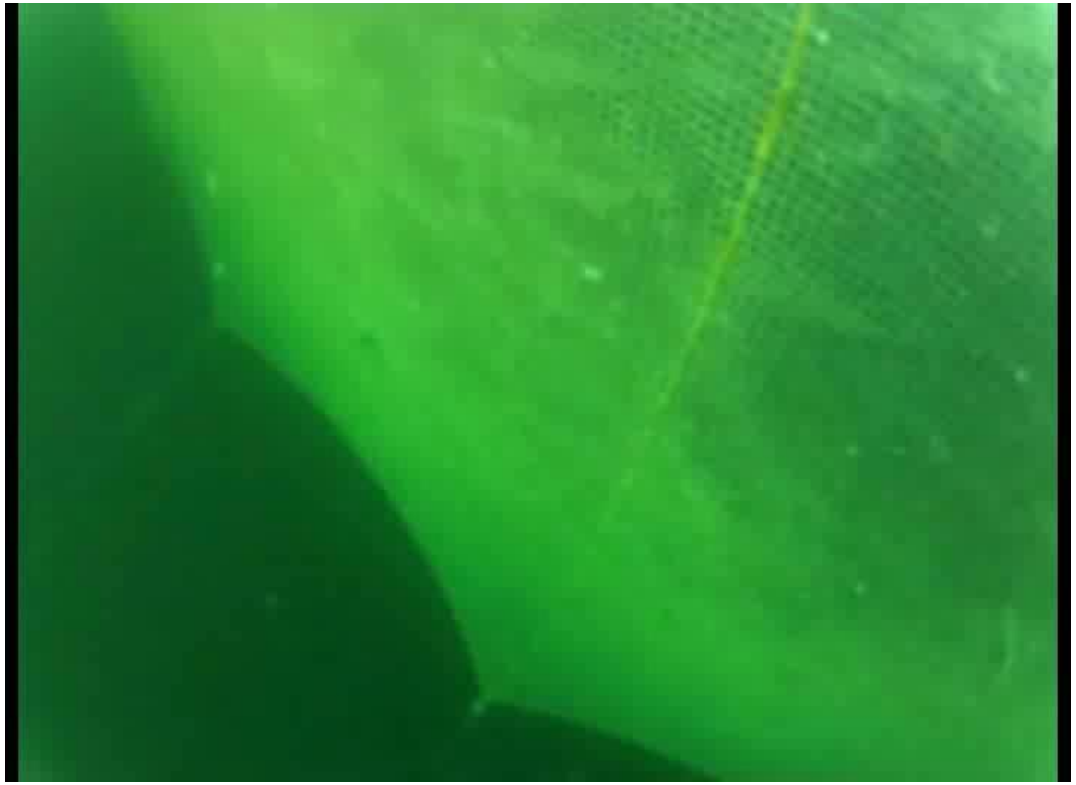
PENS AND PREDATOR CONTROL: NOW

- Wildlife safety
- Employee safety
- Stock security
- Reduced environmental impact
- Reduced marine debris



FORTRESS PENS

UNDERWATER FORTRESS PEN VIEW



NET CLEANING

INSHORE SMOLT SITE

OFFSHORE GROW OUT SITE

Maximum wave height: 13 metres!

COMMUNICATING SUSTAINABILITY – THE DASHBOARD

Market

- First company in the world (that we know of) to do interactive, real time, sustainability reporting!
- Allows us to track areas of interest by location and understand peak traffic times when sustainability is under the microscope
- Google Analytics allows us to understand what people are interested in

FARMING SUSTAINABLY

Chart and excerpts taken from Report of MHDOWG (Released Aug 2014)

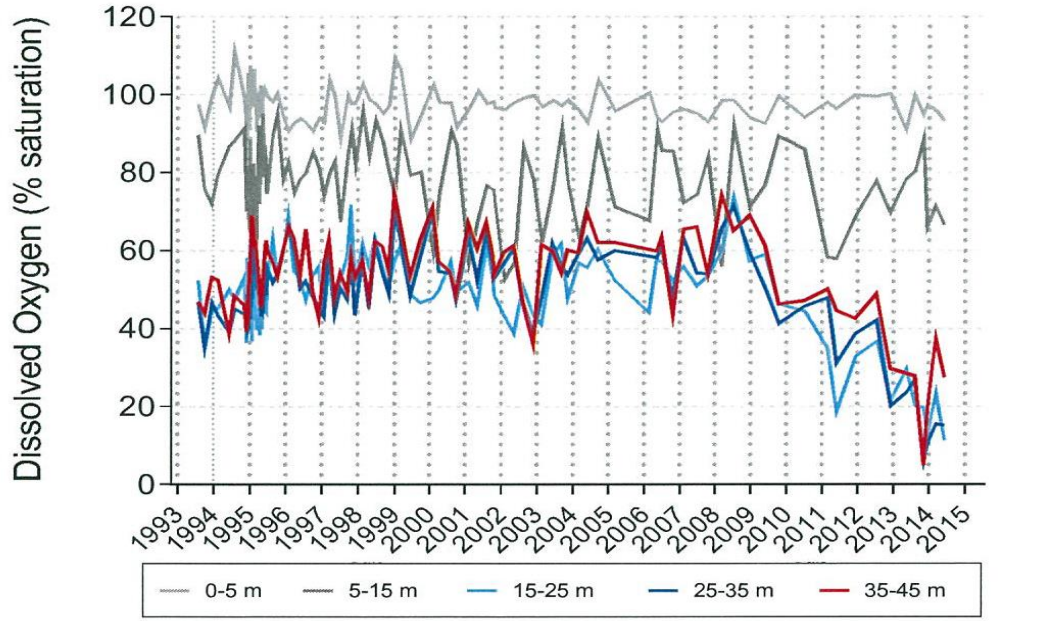


Figure 1.2: Long-term trend in dissolved oxygen within a number of depth ranges at EPA site 12.

- "There is a clear downward trend in the DO levels of the deep-water (> 15m) of MH over the period 2009-present" *(ie. Aug 2014)*
- "DO levels less than 2 mg/L are now very common below 20m and occasionally come to within 12m of the surface"
- In Sep 2014 both Huon (and Petuna at the time) strongly asserted to the Tasmanian Government (including DPIPWE) that the existing biomass limit set by the Commonwealth of 52.5% (15,643 tonnes) should be maintained until further information was available to demonstrate increased biomass was sustainable.
- The recent IMAS study done in September 2016 discovered that the fauna under some lease areas had dropped nearly to zero levels, and also oxygen level sin the deeper waters had dropped to zero or nearly zero.
- This was at a biomass at that time of around 10,000 tonnes yet the government set the biomass at 14,000 tonnes

SALMON PRODUCTION TREND IN FAROE ISLANDS

- Tasmania must not make the same mistakes made in other salmon producing countries that have led to fish health issues.
- The following graphs shows how new legislation and regulation turned the Faroe Islands into "one of the most predictable fish production environments in the world".
- Before action was taken, the mortality rate was between 20-25 per cent.

BIOLOGICAL CONTROL – CRITERIA 1
A GOOD REGULATORY FARMING ENVIRONMENT

BAKKAFROST

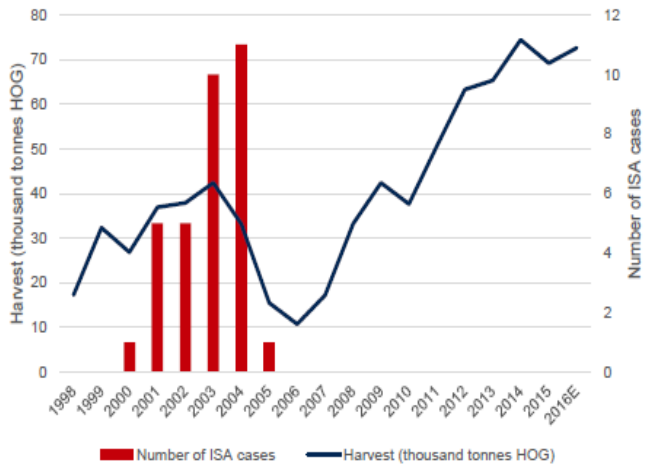
During the period 2001-2004 the Faroe Islands were severely struck by ISA outbreaks

New legislation and regulation was introduced in 2003 known as "The Faroese Veterinary Model":

- One generation based farming model
- Fallowing periods between each generation
- Immunisation and vaccination programs
- Restricting movement of equipment and fish
- Density limits introduced
- Brood stock facilities allowed on land only
- Fish for harvest not allowed in open waiting cages at harvest station
- Minimum distances between farms and hatcheries
- Rules to fight and control sea-lice introduced

The Model has resulted in one of the most predictable fish production environments in the world with good KPI for salmon farming, such as FCR, Mortality and Growth rate

Biological meltdown paved way for robust regulatory regime



The mortality rate with the Faroese Veterinary Model has been between 5 and 10% compared to 20 to 25% before – despite the annual production has never been higher than now

Source: Bakkafrost, Kontali

HARVESTING

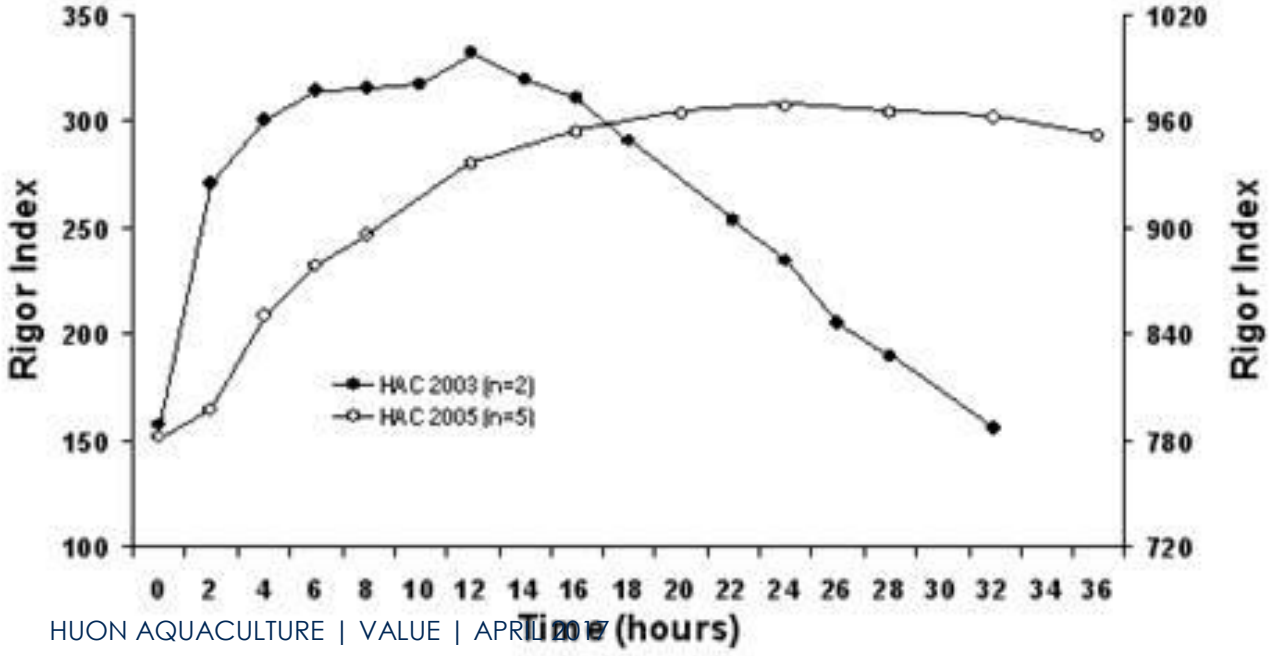
Harvesting

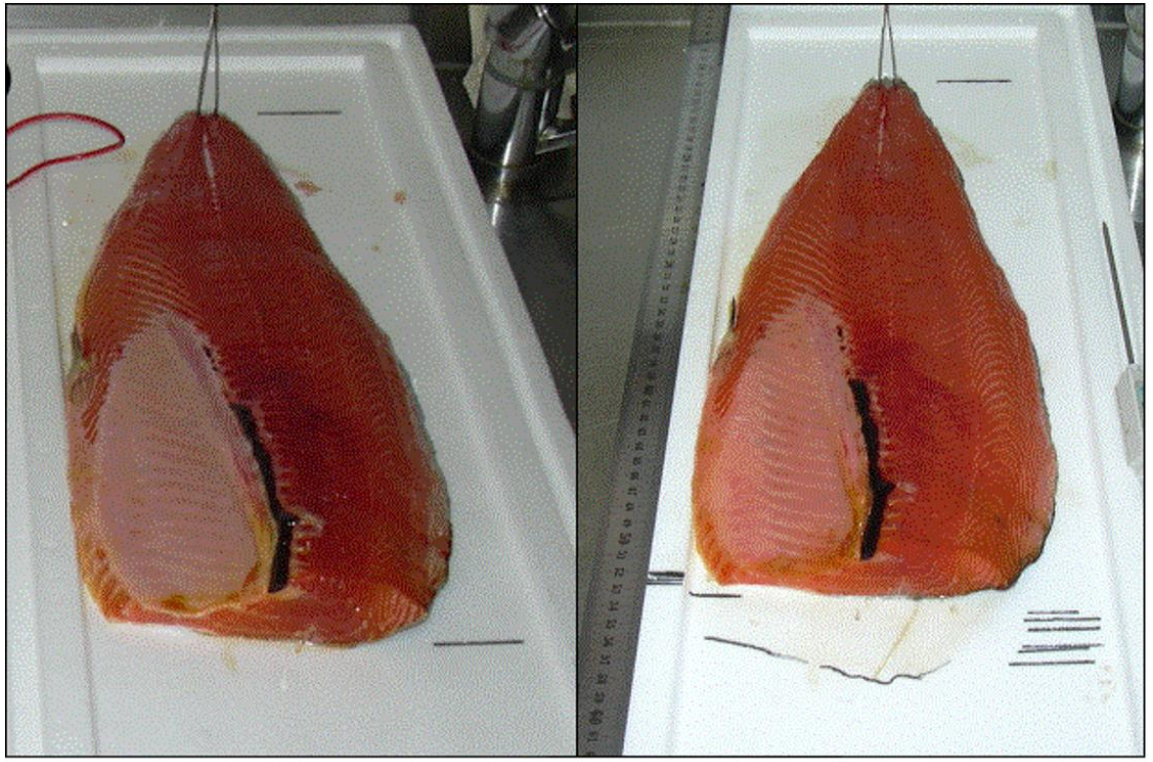
- Developed stun and bleed harvest system in collaboration with supplier.
- Now exported and utilised as the gold standard around the world for harvesting
- RSPCA UK awarded for welfare and humane harvesting
- Conducted many experiments to assess handling on rigor
- Trialled various pumps (vacuum, airlift and centrifugal) and different harvest systems – all aimed to delay rigor onset
- Improved fish quality (gaping, texture and blood spotting) by undertaking most of the processing (gutting and filleting) pre-rigor

HARVESTING

Harvesting

- Strong focus on time into and out of rigor for:
  - Flesh texture
  - Minimising gaping
  - Shelf life benefits





T= 0 hrs

T= 24 hrs hrs

PROCESSING AND VALUE ADDING

Processing

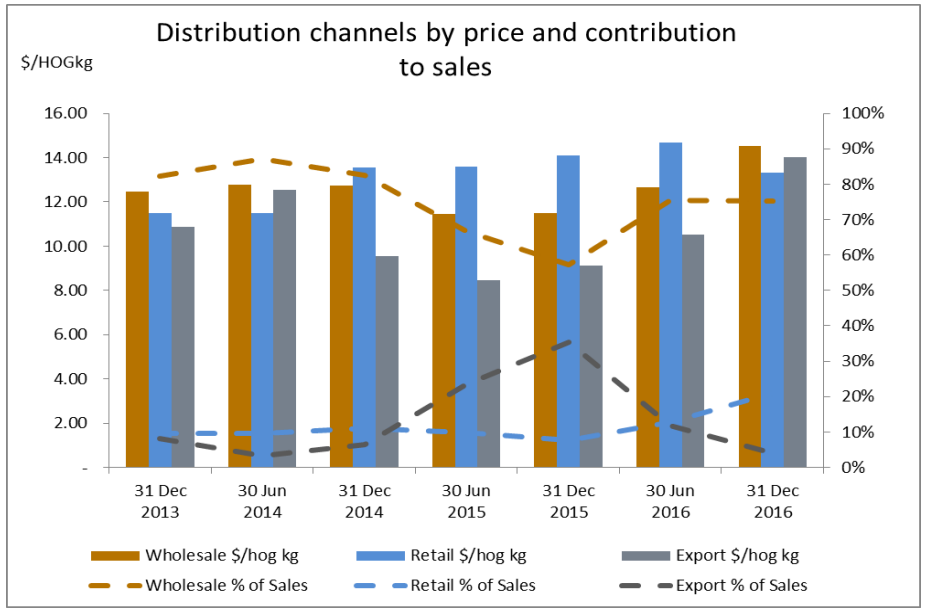
Value added processing

- All fresh product processed pre-rigor
- Fresh and value added processing under the one roof
- Pre-rigor hot smoked product – the freshest available to the market
- BRC AA Rating – one of only two seafood facilities worldwide to currently hold the rating
- New flavour experimentation for value added range extensions

SALES CHANNELS

CHANNEL MIX BY REVENUE

Six months ending	31 Dec 2016	30 Jun 2016	31 Dec 2015	30 Jun 2015	31 Dec 2014
Wholesale	75%	75%	57%	67%	82%
Retail	21%	13%	8%	10%	11%
Export	4%	12%	35%	23%	7%



- Growth in chilled package salmon a key area of focus
- Huon currently supplies a large proportion of the Australian market with MAP product
- Diverse range of own brand and private label production
- Gourmet entertaining has also been a focus with new flavour varieties and sales channels (online)

SUMMARY

Innovation = Efficiency = Value

Being in Tasmania gives us unique opportunities.

Climate, relatively disease free, no sea lice!

But it also presents us with unique challenges.

AGD, seals and warm summers to name a few.

Huon will continue to lead the way in innovation, which will ultimately lead to greater efficiency and value.

Husbandry, bathing, lighting, harvesting, processing, transport, communications.

The future lies in offshore/higher energy farming.

Huon already farms offshore and will continue to do so to give the fish the best conditions to grow in and to minimise the environmental impact.

THANK YOU
QUESTIONS?

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