


ATLANTIC  
SAPPHIRE

**- Yes to healthier Oceans**

ATLANTIC  SAPPHIRE

# Executive summary

- Atlantic Sapphire est. 2010 is the first mover and leading company in RAS land based salmon farming world wide.
- 92,5 % shareholder in Langsand Laks in Denmark with capacity of 700 tons/year with plans for expansion to 2000 tons /year.
- 4 years of investigation on how to create large scale land based salmon farm in the USA.
  - Site identified and under contract.
  - Overview of main assumptions and CAPEX based on farm up to 30,000 metric tons.
  - In the process of getting permits.
- Experienced founding partners from both Norwegian salmon side and Danish RAS side.
- Atlantic Sapphire brand well known in America.

# The history

Johan Andreassen and Bjørn-Vegard Løvik founded Villa Organic in 1995 at the ages of 17 and 18.



Andreassen and Løvik are pioneers in fisheries, sales and R&D of cleaner fish (wrasse). Cleaner fish is an environmental friendly solution of treating parasites in salmon farming.



In 1999, Villa Organic started cod farming and in 2000 salmon farming.



Through acquisitions and organic growth, Villa Organic become vertically integrated in 2005. Main customer Whole Foods Markets



Andreassen held the CEO role and Løvik the COO role until 2009. At that point Villa was the 7<sup>th</sup> largest salmon farmer in Norway



They sold their shares in Villa Organic in 2010.

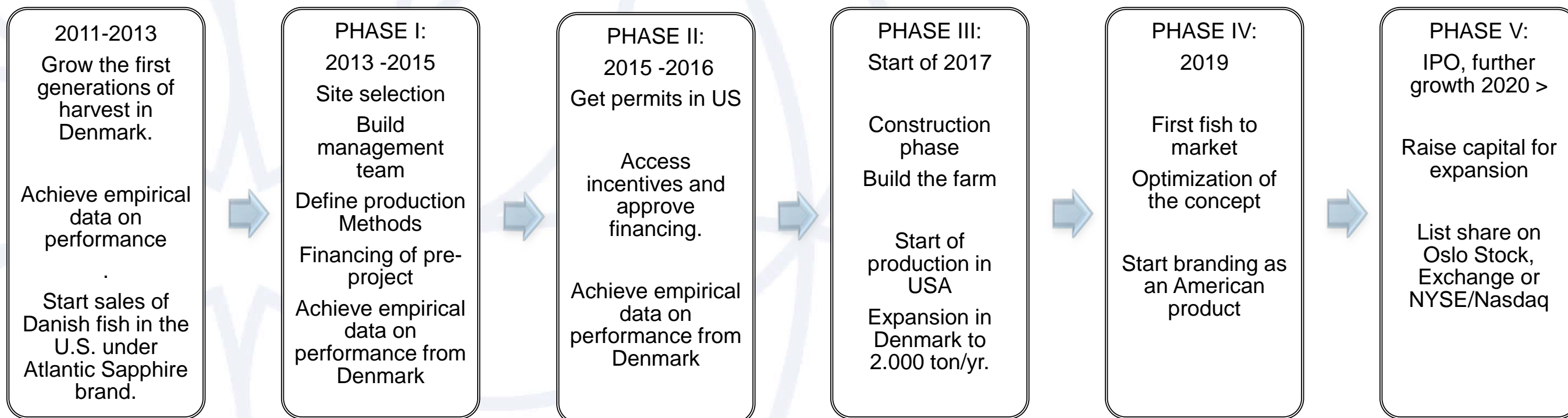


Atlantic Sapphire established in 2010 on the idea that salmon in the future should be built closer to the end markets like other proteins



Langsand Laks established in 2001 in Denmark as a commercial pilot to prove the viability of the RAS technology

# Timeline





# Danish farm – Langsand Laks



# Langsand summary

## Key statements

- 700 tons/yr capacity
- Harvested 442 tons in 2016 to date. Last harvest average weight 4,4 kg.
- Controlled shutdown in 2<sup>nd</sup> half of 2014 due to furunkulosis issues
- \$14m spent between CAPEX and OPEX so far
- From egg to fresh packed salmon “under one roof”

# Langsand concerns and solutions

## Concern

Bacteria and viral diseases

High CO2 in tanks

Production cost

Early maturation

High harvest costs

Water quality/clarity

Off flavor

## Solution

“Bacteria and virus proof” filtrations of intake water and PCR screenings

Increase degassing and flow

Increase production and better purchasing

New pipeline to North Sea, Ozone, LED lights, grading

Stun, bleed, gutting and packing on site

Ozone and skimmer system

Managing water quality – harvesting directly out of tanks



# Atlantic Sapphire - Langsand Expansion

- Expansion to 2000 ton per year.
- Increase production
- Reduce production cost
- Test concepts – innovation center
- Grow bigger fish
- Improve production flow
- More regular harvest





# Atlantic Sapphire USA

# Atlantic Sapphire USA summary

## Key statements

- Planning stage 1 for a 5,000 tons/year facility
- Build out planned in phases for more production.
- Stable water supply – saline groundwater
- Located in Miami-Dade County, FL
- Product of the U.S.A.
- Strong market presence through our sales office Platina Seafood in Miami with a client portfolio of 300+ customers nation wide. Platina Seafood has very strong relationships with foodservice and seafood distributors, restaurants and supermarket chains throughout the US, Canada and the Caribbean
- From egg to fresh fillets “under one roof”
- Build out phase from 2017.

# Thank you

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