

Salmon Evolution ASA

SALME NO · Seafood · Seafood · Equity update · 13 February 2023 · 21:17

BUY

HOLD

SELL

loC: Building competence locally, expanding globally

We initiate coverage on Salmon Evolution, which balances operational risk and cost through its HFS system, with a Buy rating and a NOK 12 TP. The company has harvested valuable experience from Indre Harøy, with supportive KPIs, and is currently expanding in Norway and abroad. Upcoming triggers are continued supportive biological performance, steady-state harvest late Q3/23, new licences and an updated timeline/CapEx plan for its current expansions.

Balancing operational risk and cost

Salmon Evolution is a land-based company utilizing a hybrid flow-through system (HFS), which balances operational risk and cost, and is viewed by the company as a “sweet spot”. The company is building competence in Norway at Indre Harøy, where it holds licences supporting 31.5’t. Construction commenced in May/20 and first harvest was completed in Nov/22 with supportive KPIs.

Targeting 100’t by 2032 with several remaining triggers

In South Korea, an attractive JV has been formed with Dongwon Industries while Salmon Evolution is actively evaluating selected production sites in North America. Upcoming triggers are further biological performance, steady-state phase 1 harvest late Q3/23, a positive development on additional licences, an updated CapEx plan and timeline, as well as funding to complete Indre Harøy phase 2.

Significant upside potential given full execution

The company has harvested valuable experience in Norway, and the international expansion plans represent significant potential longer-term owing to a logistical advantage. Our base case reflects 100’t in 2032 with a blended margin of NOK 29/kg in steady state. We have not factored in potential effects related to optimizing production, such as sale of post-smolts from spare tank capacity. We initiate coverage with a Buy recommendation and a NOK 12 TP, which implies a 30% discount to our DCF value of NOK 17.1 per share.

Key Figures (NOK)	Dec-21	Dec-22	Dec-23e	Dec-24e
Revenue (m)	12.3	47.7	303.6	605.1
EBITDA (m)	(35.5)	(68.5)	50.8	241.7
EBIT (m)	(37.7)	(74.7)	10.2	190.4
EPS	(0.11)	(0.14)	(0.12)	0.22
Adj. EBITDA (m)	(35.5)	(68.5)	50.8	241.7
Adj. EBITDA margin	(289.4%)	(143.6%)	16.7%	39.9%
Adj. EPS	(0.11)	(0.14)	(0.12)	0.22
Revenue growth		289.0%	536.7%	99.3%
EPS growth		22.2%	(15.7%)	
DPS	-	-	-	-
Dividend yield	0.0%	0.0%	0.0%	0.0%
Net interest bearing debt (m)	(272)	290	431	1,117
ROE		(3.1%)	(2.5%)	4.4%
ROACE		(5.2%)	0.5%	6.7%
FCFF yield	(27.5%)	(27.2%)	(20.2%)	(21.6%)
EV / Sales (x)	236.8	72.9	11.9	7.1
EV / EBITDA (x)	na	na	71.26	17.80
EV / EBIT (x)	na	na	355.4	22.6
P / E (x)	na	na	na	38.07
P / B (x)	1.90	1.86	1.70	1.63

Target

NOK 12.00

Recommendation	Buy
Target (NOK)	12.00
Price (NOK)	8.43
Upside	42.3%
Market capitalisation (NOKm)	2,915
Enterprise value (NOKm)	3,218
No of shares, fully diluted (m)	345.8

12 months share price performance:



Estimates	Dec-22	Dec-23e	Dec-24e
Revenue			
Est. change			
Dev. vs. cons.	-0.2%	-1.5%	-5.0%
EBITDA			
Est. change			
Dev. vs. cons.	-7.4%	-29.9%	-1.3%
EPS			
Est. change			
Dev. vs. cons.	-12.7%	-104.7%	22.5%

Source: Arctic Securities Research, FactSet (13 February 2023)

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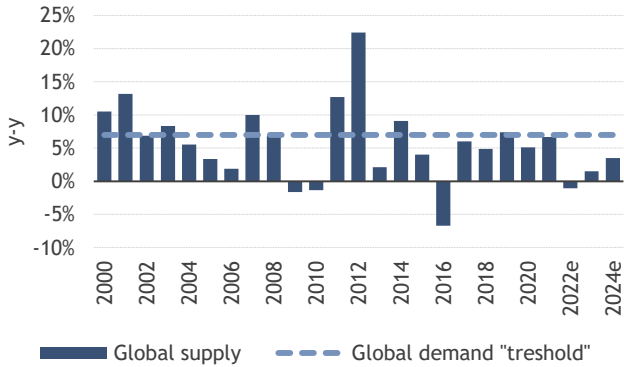
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Investment case in six charts

The Atlantic salmon market - healthy outlook

Future supply expected to be below demand growth of ~7%



Source: Arctic Securities Research, Aquabench, Kontali, Norwegian Directorate

Strategic location at Indre Harøy

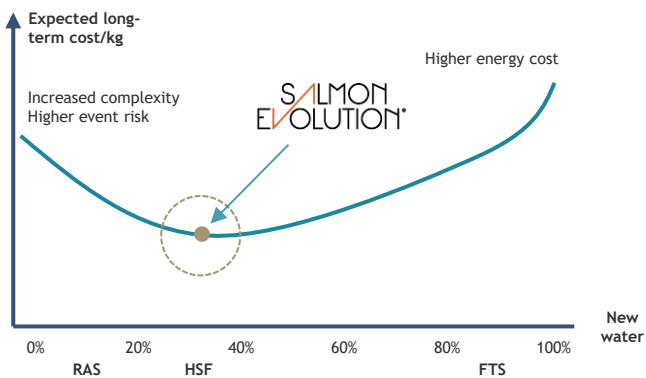
Optimal temperatures and access to existing infrastructure



Source: Arctic Securities Research, Company data, BarentsWatch

HFS sweet spot, balancing cost and risk

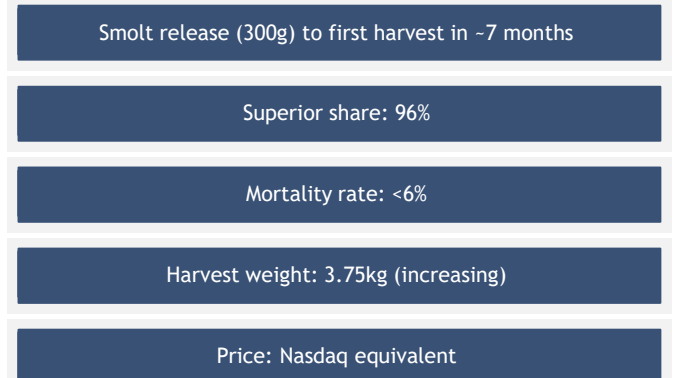
30-35% new fresh seawater



Source: Arctic Securities Research, Company data

Supportive KPIs from initial batches

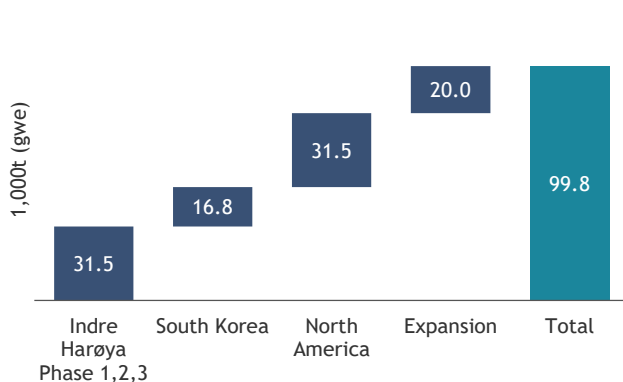
Increasing harvesting weights, realized prices, low mortality



Source: Arctic Securities Research, Company data

Clear roadmap towards 100't

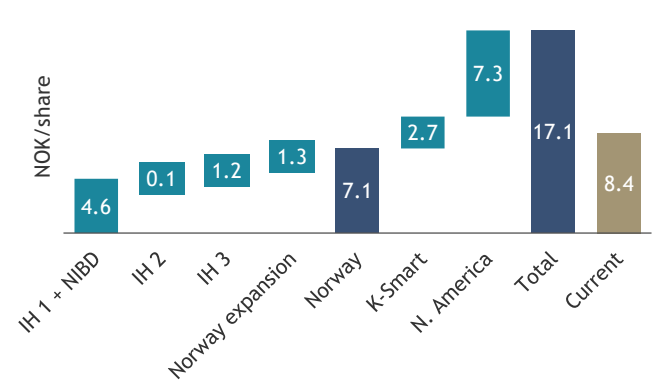
Steady state phase 1 in Q4/23, phase 2/S. Korea next triggers



Source: Arctic Securities Research, Company data

Significant valuation potential

DCF SOTP approach based on 100't growth target

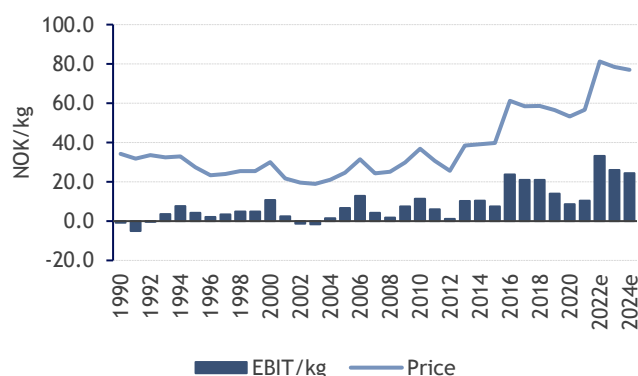


Source: Arctic Securities Research

The rationale for new concepts

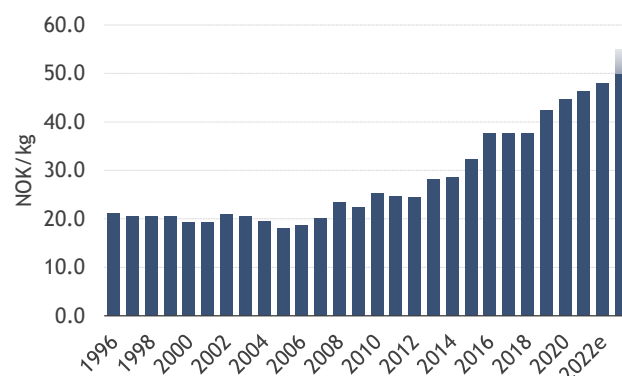
Since 2012, the Norwegian salmon farming industry has operated with high utilization of existing farming licences, and following greater biological challenges and inflation, costs in traditional salmon farming have increased significantly. The Norwegian Government has implemented a strict growth and production regime, contributing to an enforced producer discipline with a sharp increase in the salmon price as a result of supply growth well below historical levels (global CAGR supply growth was 9.8% during 2010-2015 which compares to 3.7% during 2012-2022) coupled with continued healthy demand growth.

Norwegian salmon price and EBIT/kg development



Source: Arctic Securities Research, Norwegian Directorate of Fisheries, Akvafakta

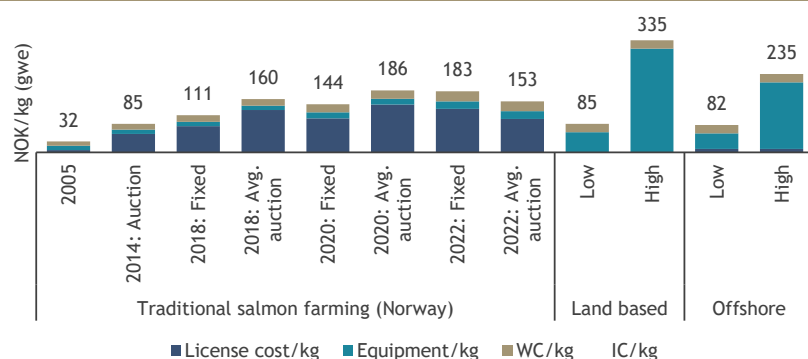
OpEx/kg development among Norwegian farmers



Source: Arctic Securities Research, Norwegian Directorate of Fisheries

The Norwegian Government's traffic light principle provides the industry with a transparent growth regime (capping capacity expansions at a maximum 6% every second year). The first round of capacity expansions took place in 2018 with a high proportion of new capacity sold through auctions. Consequently, this has led to a sharp increase in invested capital for incremental capacity (as the cost of licences has increased) and thus in the fully invested NOK/kg cost of such capacity. This has also been witnessed from M&A activity in Norway during 2019-22. In tandem with this trend, the industry is transferring more of the production cycle to land by growing the smolts bigger, or pursuing more capital-intensive methods such as e.g. offshore- and land based farming.

Salmon farming invested capital per kg



Source: Arctic Securities Research, Norwegian Directorate of Fisheries

The 2022 auction was heavily impacted by the proposed resource tax. A majority of the volumes were sold to new entrants and smaller players who can utilize the proposed 4-5't minimum deduction. None of the large farmers were willing to acquire capacity at the minimum price of NOK 100' per tonne MAB (NOK 65/kg gwe) and 25% of the volumes were unsold. Despite this, invested capital per kilo still remains at historically high levels on the back of high licence costs.

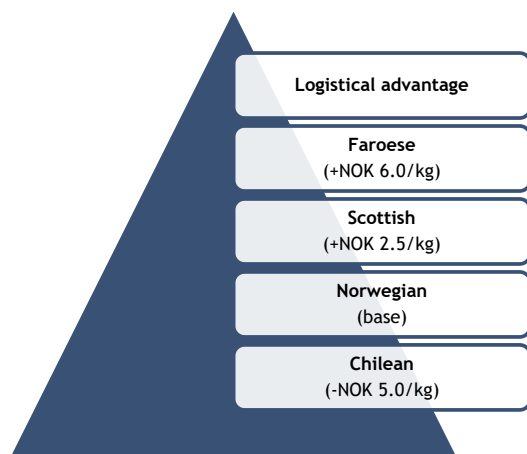
For the salmon farming industry in general, we see continued demand growth potential going forward, supported by a growing population and salmon's attributes (a versatile product, among the healthiest proteins you can eat, and one of the most resource-efficient/ climate friendly sources of protein). The key demand driver will be the continued introduction and development of fresh/refreshed products in retail stores, as was the case in Norway and Germany during 2011 to 2013, and more recently in the US. We still believe several markets have untapped potential which will continue to represent significant demand growth potential going forward, particularly in the US and China. Through the pandemic, salmon demand proved to be robust. In 2020, net demand was only down by 5-10% as retail experienced significant growth (some ~20% y-o-y) which to some extent offset negative volume effects from the HoReCa segment (~30% market share pre-Covid 19). As the world has normalized, salmon demand could be stronger for longer, supported by a new retail consumer base.

Prospects for a healthy market balance due to modest supply growth prospects and growing demand, coupled with relatively higher costs and invested capital/kg for traditional salmon farming have made the economics for new concepts (land-based and offshore) more attractive.

Potential price premiums

In addition to potentially being more competitive in terms of cost/kg and invested capital/kg relative to traditional salmon farming, new concepts in the end-consumer markets (such as the US and Asia) that are close to the consumer enable significant logistical savings. The cost of transporting fresh Norwegian salmon to the US east coast was ~NOK 15-18/kg pre Covid while the price spread has increased since 2020 due to reduced transportation capacity. Furthermore, the price hierarchy illustrated in the bottom left-hand chart illustrates that salmon of e.g. Scottish and Faroese origin trades at a premium relative to Norwegian salmon in the US market. Being sustainably and domestically farmed, with a longer-shelf life relative to imported salmon, land based and/or offshore farmed salmon is in a position to realize a price premium relative to traditionally farmed salmon.

US salmon market: Salmon origin and price premiums



Source: Arctic Securities research, Urner Barry, Fish Pool

US logistical advantage of ~NOK15-18/kg pre C19



Source: Arctic Securities research, Urner Barry

Potential cost advantages versus traditional farming

Land-based salmon production has a long-term potential to operate with a lower cost base than traditional farmers in open net pens due to a variety of factors. Firstly, salmon farming in land-based facilities enables closer monitoring of each individual fish, which could improve feed conversion ratios (FCR). In addition, biological costs related to treatment of diseases should be eliminated as the salmon is not exposed to algae and parasites.

However, land-based salmon farming is still a relatively new concept, and the companies involved have so far experienced other types of biological issues, such as early maturation, elevated levels of H₂S and unstable water temperatures, resulting in mass mortality events. Land-based salmon farming does not put the same pressure on the maritime ecosystem, and the licences have been granted free of charge thus far, ensuring that projects could yield satisfactory returns on invested capital despite high CapEx related to the construction of the facilities.

Resource tax proposal

On 28 September, the Norwegian government proposed to introduce a resource tax on salmon and trout farming of 40% with effect from 2023. The proposal is limited to traditional commercial licences, and as such, land-based farming will not be impacted by the proposal, although it could represent risk if the industry matures. On 20 December 2022, the Norwegian Ministry of Trade, Industry and Fisheries announced a temporary halt to applications for all new land-based licences. The suspension, initially for 6 months, will run until new regulations for aquaculture on land are in place. Salmon Evolution has permits to produce 31.5't HOG on Indre Harøy, although the recent news flow could represent risk if the company needs additional licences in Norway to expand.

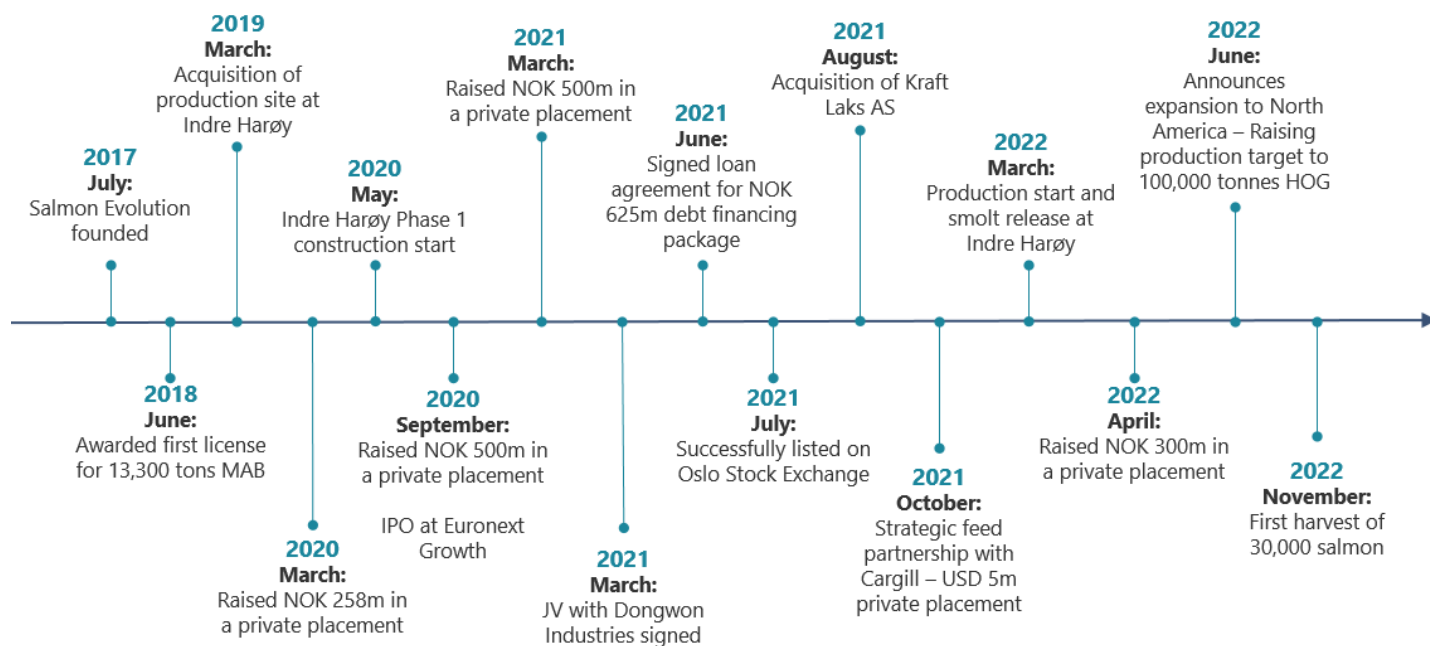
An introduction to Salmon Evolution

Brief company overview

Salmon Evolution is a Norwegian, land-based salmon farming company established in 2017 by people with long experience from the seafood industry. Headquartered in Hustadvika, a short drive from Molde, the company is aiming to use a hybrid flow-through system (HFS) in Norway, South Korea and North America in order to produce more than 100't HOG by 2032.

Following a successful NOK 500m private placement, Salmon Evolution was listed on Euronext Growth in September 2020 under the ticker SALME. In July the following year, the company transferred to the main Oslo Stock Exchange.

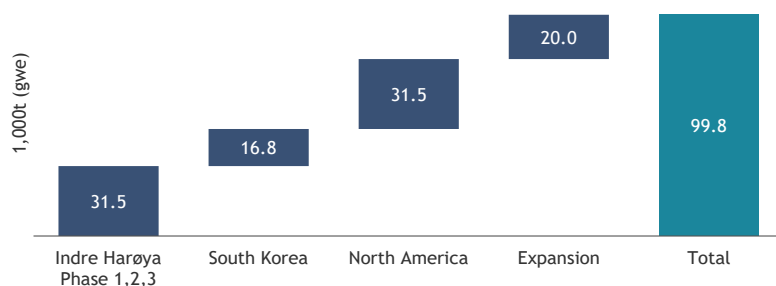
Milestone overview



Source: Arctic Securities Research, Company data

Salmon Evolution is producing its first batches of salmon at the facility at Indre Harøy in Norway, where it currently holds a license for 13.3't maximum allowed biomass (MAB), yielding 31.5't HOG. A further 20't expansion is planned in Norway or abroad, although subject to additional licences. The company signed a JV with Dongwon Industries, a leading seafood company in South Korea, in March 2021 to produce 16.8't HOG annually in Asia. A year later the company announced expansion plans to North America, raising the company's production target to 100't HOG.

Roadmap towards 100't

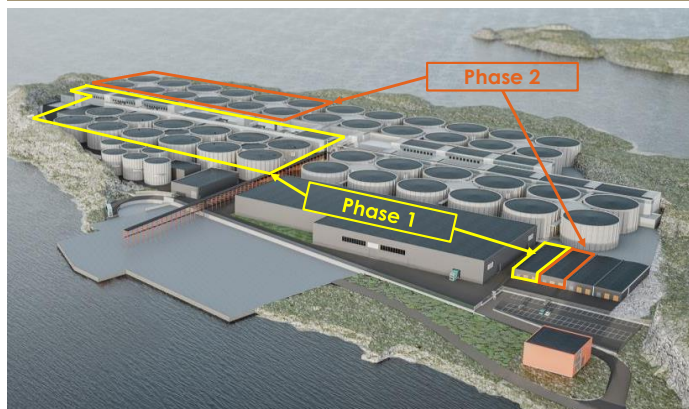


Source: Arctic Securities Research, Company data

Indre Harøy

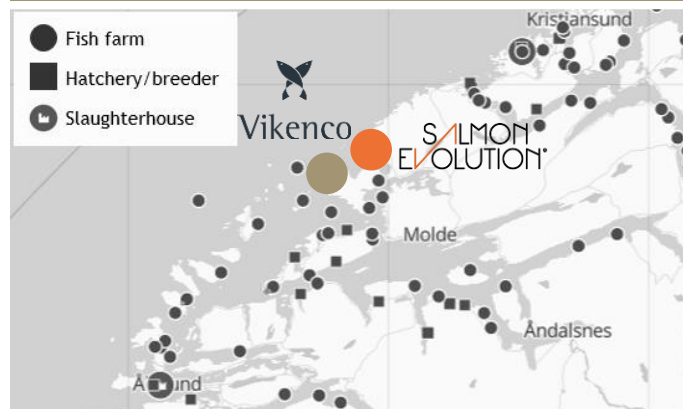
On the Norwegian island of Indre Harøya in Møre & Romsdal, the company is building its first facility with a targeted production capacity of 31.5't utilizing its permit of 13.3't MAB received in 2018. Furthermore, the company is planning to expand its operations at Indre Harøy with 20't HOG. The rationale for choosing Indre Harøy is the unlimited access to fresh sea water, renewable energy and a highly competent workforce, as well as an established infrastructure for salmon farming.

Overview of phase 1, 2 & 3



Source: Arctic Securities Research, Company data

Established infrastructure for salmon farming

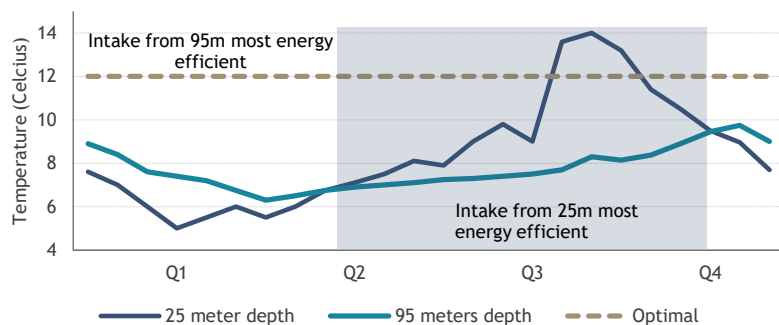


Source: Arctic Securities Research, Company data, BarentsWatch

The facility will consist of three phases. Phase 1 and 2 will both produce 7.9't HOG annually, while the final phase targets 15.7't HOG. The first two phases consist of 12 grow-out tanks, and phase 3 will have 24 tanks, resulting in 48 fish tanks with a combined cubic capacity of ~240'm³. Each grow-out tank is ~5,000m³, implying a production of 132 kg/m³ HOG, compared to Andfjord at 43 kg/m³, Gigante at 119 kg/m³ and Atlantic Sapphire at 151 kg/m³.

All fish tanks act as independent grow-out cells, reducing biological risk, and because of the low recirculating rate, no biofilters are needed. To obtain a production cycle of ~11 months the company will grow fish under 1kg at 14 degrees Celsius, and lower temperatures to 12 degrees until harvest. The targeted energy use of kWh 5.8/kg (lwe) will be met by having water inlets at both 25 and 95 metre depths, utilizing seasonal variations in water temperatures to minimize the use of energy in heating and chilling water, in combination with heat pumps and heat exchangers. The water inlet at 95m will be used during winter and spring, while during the summer and autumn it is most energy-efficient to pump water from 25m depth. Water samples from 20-30m and 90-100m in the area shows an average salinity level of 33.6 and 35.0ppt respectively, aligned with the company's budget of 34ppt.

Switching water inlets between seasons



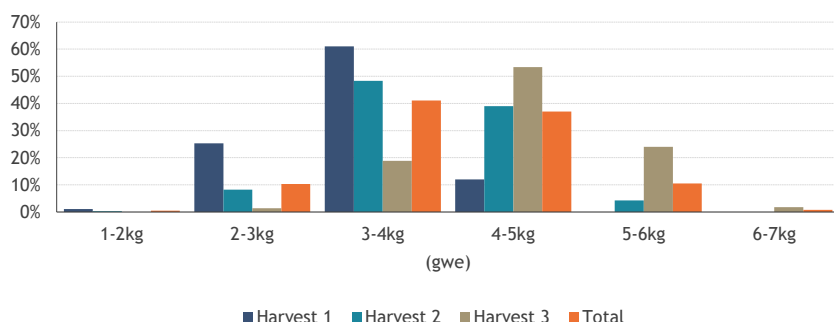
Source: Arctic Securities Research, Company data

After starting construction in May 2020, Phase 1 of the facility is expected to be completed during Q1/23 with only minor CapEx remaining. The company is targeting a steady state production of 7.9't HOG in late Q3/23, ~3.5 years after construction start.

On 26 March 2022, Salmon Evolution successfully completed the first smolt release at its facilities at Indre Harøy. ~100' smolts were released with an average weight of 300g and 7 months later, on 7 November 2022, the first 30,000 fish were harvested, confirming the hybrid flow-through technology. As of today, there have been released 4 batches of smolt, all demonstrating good biology, low mortality rates, and growth rates according to plan.

At the Q4/22 operational update, the company disclosed that the entire first batch of 340t HOG had been harvested at an average weight of ~3.75kg HOG, below the target harvest weight of 4.85kg as the fish had been ~7 months in one tank (will be transferred more frequently in steady state) and to test the system. The fish were harvested in three rounds from early November to early December, with the last harvesting round with less than 2% below 3kg HOG and 80% above 4kg, as can be seen in the graph below.

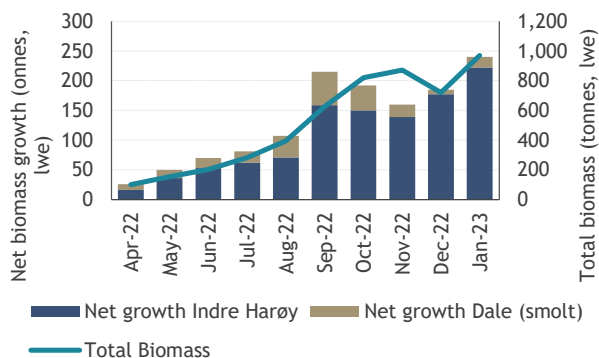
First batch harvest distribution



Source: Arctic Securities Research, Company data

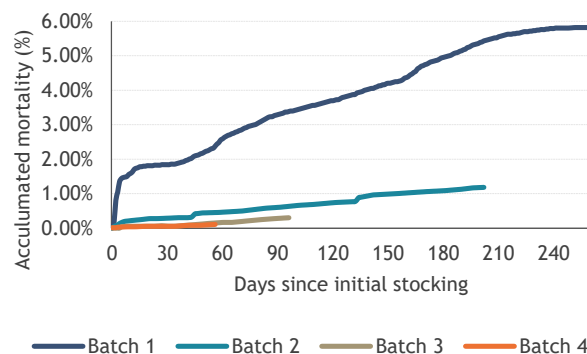
The superior share was 96%, confirming high product quality. The average realized price was NOK 75/kg (NOK 78/kg for superior +3kg), which is roughly in-line with the Nasdaq price during the period. Total mortality in batch one ended at 5.8%, or 4.0% excluding the extraordinary smolt transfer issue that the other batches haven't experienced, supporting its budget of 3-5% mortality, which compares to traditional net-pen mortality rates of ~17%.

Steady biomass growth



Source: Arctic Securities Research, Company data

Mortality rates from first batches



Source: Arctic Securities Research, Company data

The Company continues to see very low mortality levels, even as the density levels are increasing. For batch 2 the accumulated mortality stood at 1.2% per 31 January 2023, clearly outperforming the levels seen for batch 1. For batch 3 and 4, mortality levels are even lower, demonstrating the benefits of having a controlled environment with minimal manual handling of the salmon.

Indre Harøy, a complete value chain in place



Source: Arctic Securities Research, Company data

Salmon Evolution Dale = In-house smolt facility

Initially, Salmon Evolution planned to build its own smolt facility with an annual capacity of 7.5m smolt annually. The CapEx was estimated at NOK 350m and it was planned to be located at the facility. However the plan was scrapped when Salmon Evolution acquired 100% of the shares of the smolt producer Kraft Laks AS (now known as Salmon Evolution Dale AS) on 16 August 2021 for NOK 76.5m. NOK 16.6m was settled by issuing ~2.2m new shares at NOK 7.58 per share with the remainder as a cash payment, of which NOK 35m has been paid (NOK 12.5m remaining). In the 3 years prior to the acquisition date, Kraft Laks had an annual average EBITDA of NOK 10m and annual average revenues of NOK 28.5m.

The smolt facility currently produces 1.8m smolts annually, but holds a licence for production of 5m smolts. A planned expansion of the facility is subject to the final investment decision for phase 2 at Indre Harøy and will increase production capacity to 4m smolt annually, supporting an annual harvest of ~18.8't HOG based on a 3% mortality rate and a harvest weigh of 4.85 kg HOG. The estimated CapEx for the expansion is ~NOK 150m and will cover the smolt needs for the first two phases at Indre Harøy. The formerly family-owned smolt facility has produced robust smolts since 1995, according to the company, and the last/final external smolt sale was in Q2/22.

Genetics

Benchmark Genetics and Salmon Evolution entered into an agreement for collaboration on ova, genetics, as well as research and development projects for land-based aquaculture. The agreement, lasting from 2020-2027, will make Benchmark Genetics the main supplier of ova to Salmon Evolution. Benchmark Genetics is a leader in aquaculture genetics and has in recent years dedicated more resources towards RAS and land-based expertise. The company has also in the recent years announced contracts with other land-based salmon farmers such as Nordic Aqua Partners, World Heritage Salmon, AquaCon and Fredrikstad Seafood, to mention some.

Strategic partnership with Cargill

Salmon Evolution and the global feed supplier, Cargill, entered into a strategic partnership in October 2021. Under the agreement, Cargill will supply the feed for the entire production at Indre Harøy. In addition, the feed supplier has committed to allocate resources to further develop sustainable feed solutions tailored to Salmon Evolution. In connection with the agreement Cargill also invested USD 5m in Salmon Evolution through a private placement (NOK 7.71/share) in October 2021.

Green PPA with StatKraft

On 21 December 2021, Salmon Evolution entered into a 100% green physical power supply agreement with Statkraft. According to the agreement, Statkraft will supply Salmon Evolution with 100% renewable energy with most at a fixed price for 2022 and 2023. The contract is based on a fixed volume per year, and any over- and/or undersupply will be handled through the spot market. According to management, they are looking into securing contracts for 2024 and beyond at favourable conditions.

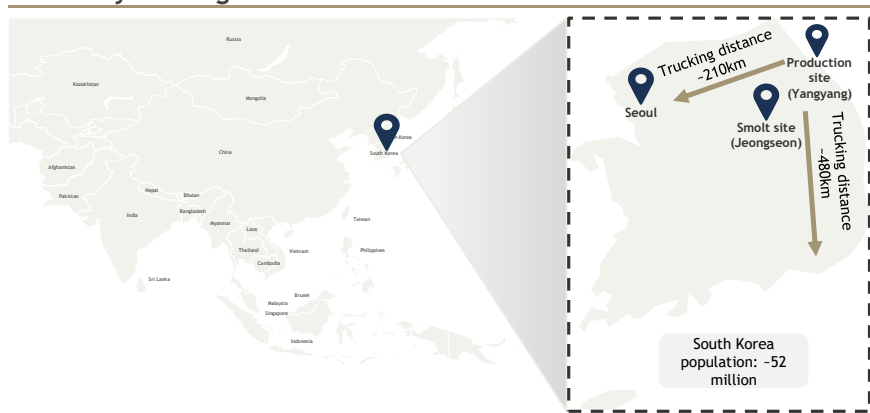
Slaughter and processing

For processing, Salmon Evolution has entered into an agreement with the local processing company, Vikenco, which was founded in 1973 and has a long history of processing different species, to various filets/trims. Vikenco is owned 51% by SalMar, with the remaining 49% owned by three co-founders of Salmon Evolution: Per Olav Mevold (17.1%), Kristoffer Reiten (14.8%) and Jonny Småge (17.1%). Today, Vikenco offers a full range of value-added products and gives Salmon Evolution the opportunity to fully focus on its farming operations.

South Korea

In late March 2021, a 51/49 JV was formalized between Dongwon Industries (51% ownership), a leading seafood company in South Korea, and Salmon Evolution to establish the company K-Smart Farming Co., Ltd. The company targets to produce 16.8't HOG annually, split into two phases of 8.4't HOG each, utilizing the experience and technology developed at Indre Harøy. The facility will be located in Yangyang, a county on the north-east coast of South Korea. The location will provide the grow-out facility with high water quality and optimal water temperatures. The rationale for producing salmon in South Korea is the logistical advantage to the Asian market, which consumed ~286't HOG over the twelve months to Q3/22, and ~59't domestically in South Korea/Taiwan, of which Norway exported ~42't HOG to South Korea and ~17't HOG to Taiwan. With the communicated freight cost of NOK 15/kg combined with a price premium of NOK 10/kg, K-Smart Farming will be in a position to realise prices NOK 25/kg above the Norwegian reference price. Nordic Aqua Partners recently reported that the transportation cost from Norway to China was ~NOK 38/kg versus the 2021 average of NOK 21/kg.

Proximity to a big market



Source: Arctic Securities Research, Company data

Dongwon Industries is a well-known player within the South Korean seafood sector, and provides K-Smart Farming with access to advantageous financing facilities, in addition to knowledge of the Asian markets. Dongwon is also the largest salmon trader in South Korea. K-Smart Farming is targeting a capital structure of 75% debt, where Salmon Evolution will contribute an estimated NOK 200m in equity on a fully funded basis for its 49% ownership. The NOK 200m represents ~6% of the company's total estimated project cost, including working capital, of NOK 3.1bn (NOK 2.7bn excluding working capital) and ~13% based on a phase 1 project cost of NOK 1.6bn including working capital (NOK 1.4bn excluding WC). The equity contribution will be split into three milestone payments, where the first tranche of NOK ~27m was paid in May 2021. Phase 2 of the project is planned to be financed through cash from operations combined with new debt. Given the economics of the operation with a favourable financial structure for Salmon Evolution, we believe the joint venture could yield a substantial return on equity.

Design work for the grow-out facility in Yangyang was intensified during Q4/22 with focus on implementing experience from Indre Harøy alongside incorporating required site-specific changes. K Smart is also working actively with the permitting processes. Contrary to Norway, land-based salmon farming is a new industry in South Korea and regulatory processes take time, but the company is continuing to experience strong support from local, regional and national stakeholders and expect clarification on several key permits over the coming months, allowing for construction start of the grow-out facility during 2023, with potential production start late 2024.

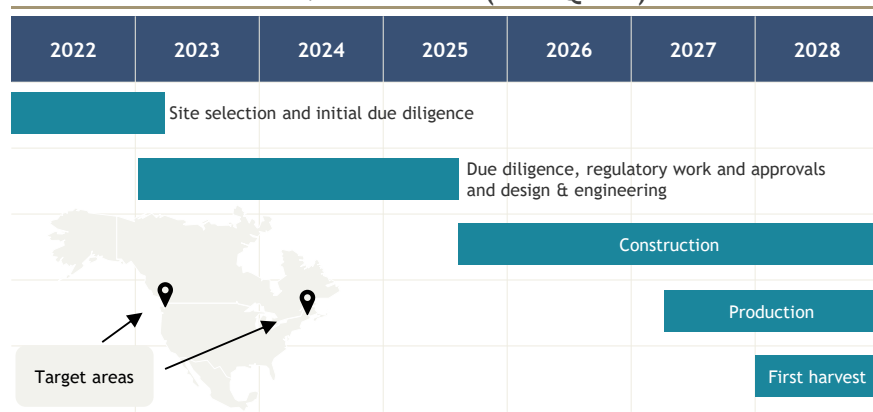
K-Smart Farming is also upgrading a flow-through smolt facility acquired in 2021, which previously produced trout up to ~1kg in freshwater, located in Jeongseon. In Q4/22, work continued to be centred around design and engineering activities in cooperation with Billund Aquaculture. Significant progress has been made on the design for the smolt facility which is now set for 90% design review during Q1/23. This review is expected to be followed by commencement of early construction works. The facility is planned to produce 4m smolt annually, supporting ~18.8't HOG (covering both phases) based on a harvest weight of 4.85kg and a mortality budget of 3%.

North America

In the beginning of June 2022, Salmon Evolution launched a North America expansion plan and increased its long-term target from 70't HOG to 100't HOG. Salmon Evolution is actively evaluating selected identified potential production sites, both on the west and east coast (and on both the US and Canadian side of the border). The company has established a dedicated team of both inhouse and external resources, and will spend the coming months on site selection.

Given that the expected pre-construction phase is estimated to take 2-3 years, the company expects construction work to commence during 2025 or 2026, with first harvest in early 2028. The plan is to use the experience from Norway and South Korea to build a full grow-out facility with capacity of 31.5't HOG annually, replicating its Norwegian facility at Indre Harøy. The company has established a wholly-owned US corporate structure, but also suggests that a potential partner might be involved. The final ownership structure is uncertain but the target is majority ownership.

Tentative timeline for North America (as of Q3/22)



Source: Arctic Securities Research, Company data

On 24 January, Undercurrent News reported ([link](#)) that Salmon Evolution is eyeing a Washington site for its US farms. According to the article, the company has held exploratory talks with a Native American tribe, and the tribe's chairman found the concept intriguing.

At its Q4/22 presentation, the company explained that the current focus is on site selection processes including fatal flaw analyses of biological, technical and regulatory aspects.

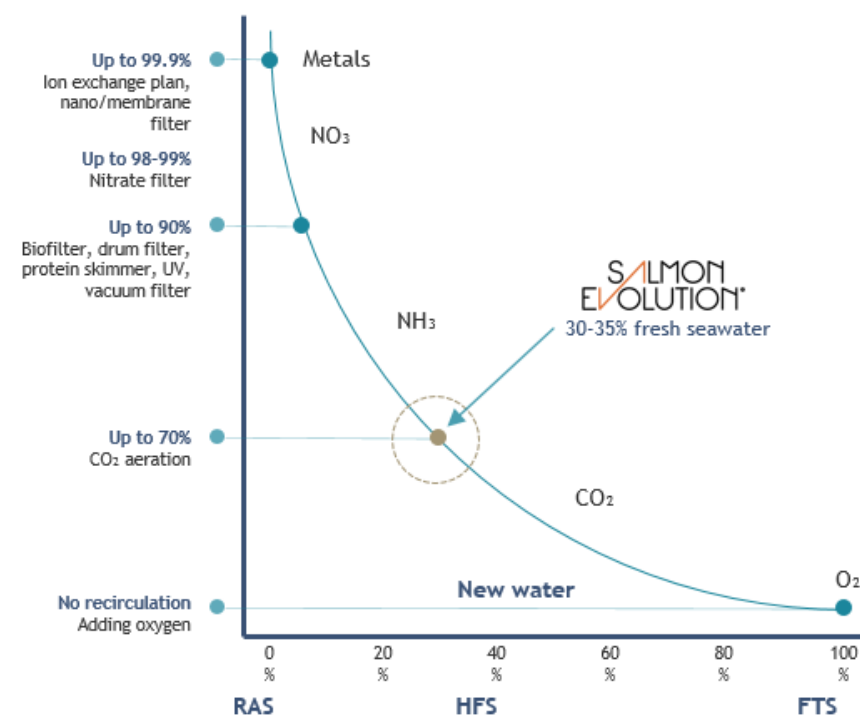
The Hybrid Flow-Through technology

The technology

Salmon Evolution has chosen to use a hybrid flow-through system (HFS) on all its planned farming facilities. The HFS technology combines the traditional recirculating aquaculture system (RAS) and flow-through system (FTS), ensuring fresh seawater while minimizing energy consumption. The level of recirculation may vary depending on location, access to fresh water and other factors. At Indre Hårøya, Salmon Evolution is recirculating 65-70% of the water and the water is completely replaced every ~4 hours externally theoretically, and 80 minutes including recirculated water.

The HFS technology is less complex than traditional RAS, and the use of a lower recirculating rate decreases risks related to “dead zones” and harmful gases. The result of this is the need for fewer components in the system, such as biofilters, which enables lower CapEx. Since the system does not require biofilters, every following/cleaning period can be shortened as the biofilters do not need to be re-activated. As higher reuse levels require more filtration and water treatment, and a low level of reuse requires more energy with regard to pumping and heating, the company considers a the recirculating rate of 65-70% as the “sweet spot”, balancing operational risk and cost.

“Sweet spot” at 30-35% fresh sea water

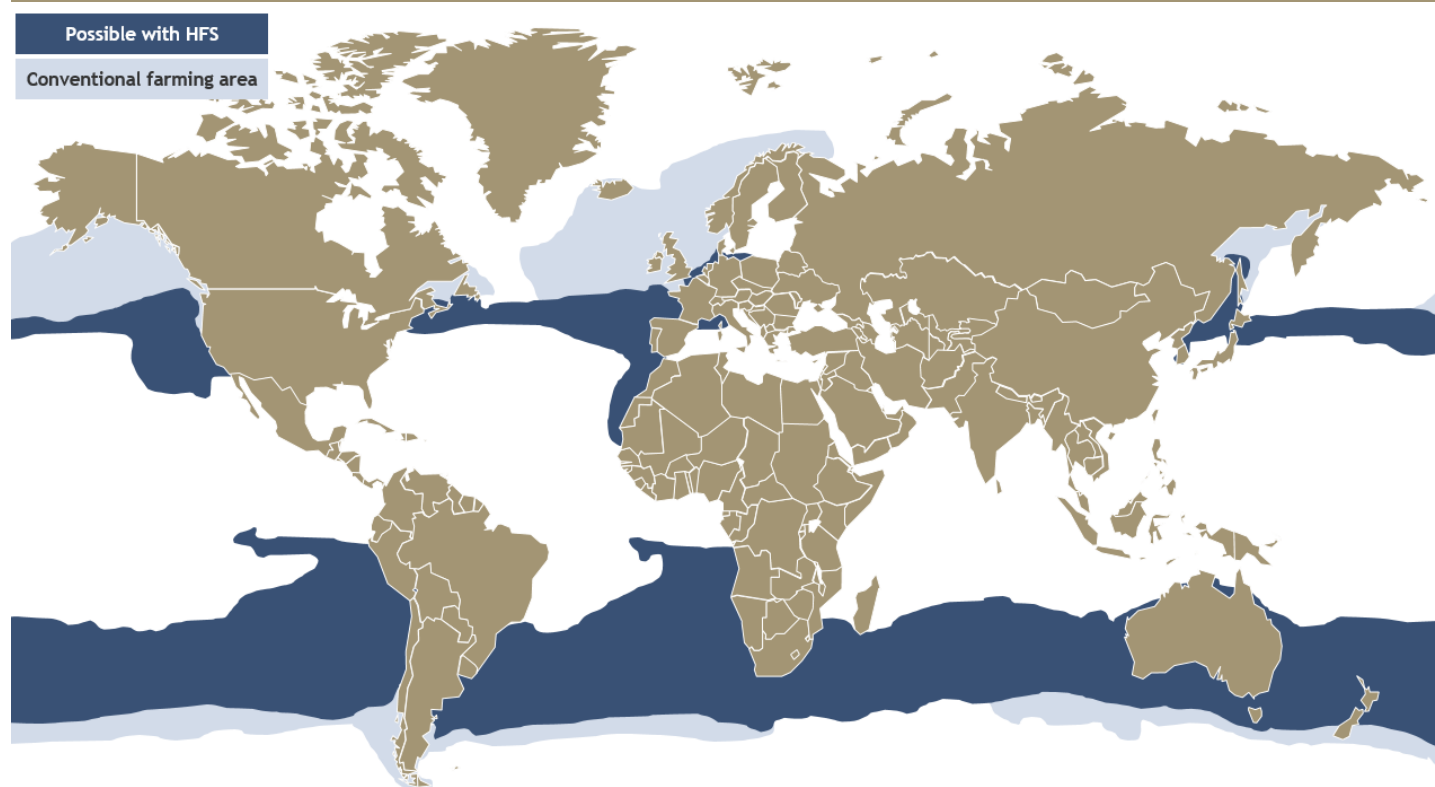


Source: Arctic Securities Research, Company data

Reusing water depends on several processes to ensure sufficient water quality, including oxygenation, salinity, alkalinity, degassing and heating/cooling, amongst others. Because RAS circulates water through a series of filters and treatment units, a more controlled and consistent environment can be achieved as the water can be continuously monitored and adjusted to maintain optimal conditions for the fish. The downside is that each step increases operational complexity, the risk of “something happening”, and cost to some extent. One could argue that companies using flowthrough systems have a competitive advantage operationally versus hybrid- and RAS-players.

On the other hand, flowthrough facilities are dependent on access to seawater of high quality whereas RAS and hybrid facilities can be located closer to the end customer, limiting freight costs and ensuring a logistical advantage that should materialize in higher achieved salmon prices. The proximity to the Asian and American markets is expected to give Salmon Evolution and its competitors Proximar, Atlantic Sapphire and Nordic Aqua Partners a freight cost advantage, enabling the companies to achieve a price premium. As illustrated below, the HSF technology is not limited to the conventional farming areas.

The HSF technology extends the ocean potential

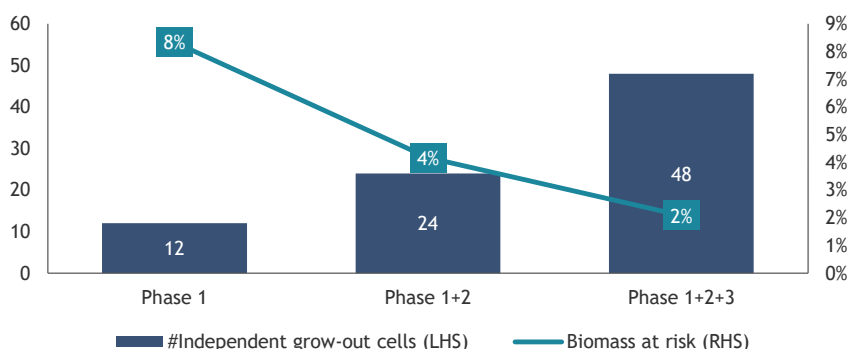


Source: Arctic Securities Research, Company data

HFS at Indre Harøy

As previously touched upon, Indre Harøy has two water inlet pipes at 25 and 95 metre depths, enabling the company to regulate water temperature using less energy. From the inlet, the water goes through a particle filter and is treated with UV to eliminate external factors, such as sea lice, viruses and other particles. As the sea water contains the targeted salinity level of 34ppt, no manipulation of this is required. For the recirculated water, degassing of CO₂ and adding O₂ is necessary to ensure optimal water quality. Since Salmon Evolution has a recirculation level under 70%, no additional biofilters are required, thus reducing OpEx and CapEx. With all 3 phases in place, the facility at Indre Harøy will have 48 fish tanks, all acting as individual biological zones, which should diversify biological risk.

Several independent cells reducing biological risk



Source: Arctic Securities Research, Company data

An overview of the system design can be found in the appendix section.

Suppliers

Artec Aqua built phase 1 at Indre Harøy and has signed heads-of-terms for phase 2. With ~20 years of experience within the industry, Artec Aqua has delivered the same HFS technology to various smolt and post-smolt facilities in Norway. The first CapEx estimate for phase 1 was NOK 1.2bn, but as of Q4/22, the outcome will be closer to ~NOK 1.6bn. In addition to inflation, the CapEx increase is said to be driven by a higher degree of complexity during ongoing system integration processes and the commissioning phase, along with sub-supplier contracts now being subject to final settlement. The construction plan for phase 1 of starting in Q2/20 with production start in Q1/22 went according to plan, proving Artec Aqua's competence and reliability. The company has proven to be a trusted provider of aquaculture systems for companies such as Nordnorsk Stamfisk, Cermaq, SalmoBreed Salten, Hofseth Aqua and AquaGen. Even though Salmon Evolution is the first to try the concept on grow-out farms, we believe the track record from Artec Aqua, combined with Salmon Evolution's promising results so far, reduces the operational risk.

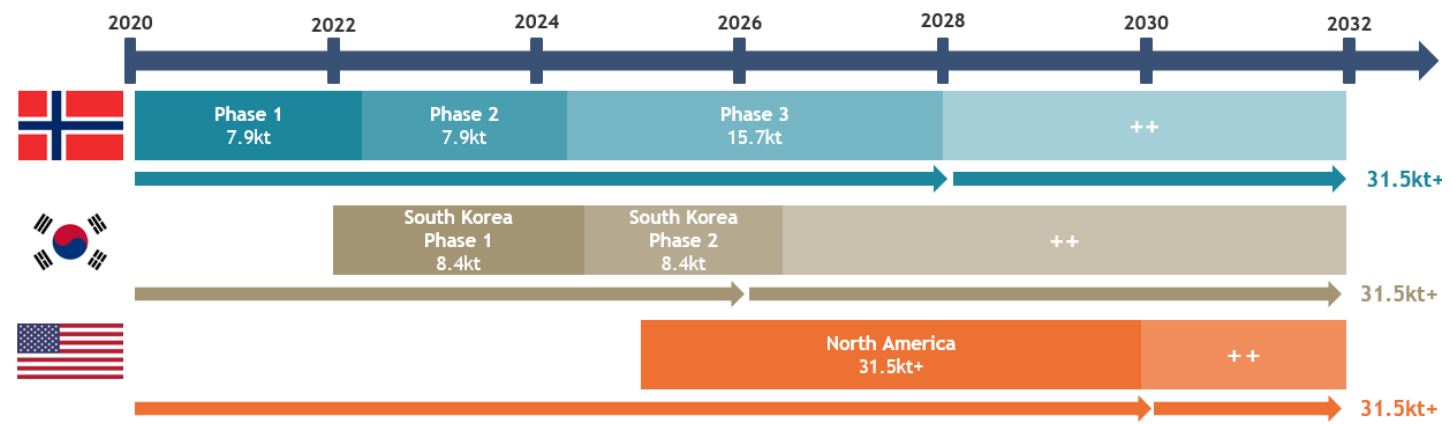
For the facility in South Korea, Billund Aquaculture is currently working on the design and engineering. Billund was chosen on the back of its international experience and presence in more than 20 countries. The company will work with Salmon Evolution's in-house engineering and technology division, consisting of 10 employees. As construction is expected to commence during 2023, we expect a tender process to be completed in the coming months.

Estimates

Production plan

Salmon Evolution targets an annual production capacity of 100't HOG and has nearly finished construction of the first phase at Indre Harøy of 7,900t HOG annual production. The company estimates to reach the targeted production plan in 2032, starting with phase 1 at Indre Harøy in steady state production late Q3/22. See construction plan below.

Construction plan to reach 100,000 tonnes HOG (guidance as of Q4/22)

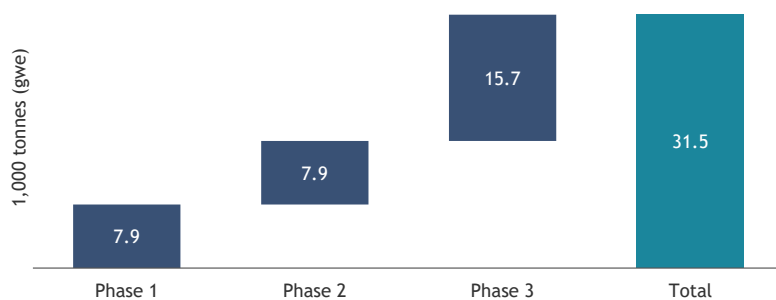


Source: Arctic Securities Research, Company data

Indre Harøy

At Indre Harøy, the targeted production is 31.5't HOG per year, based on its licence of 13.3't MAB. This implies a HOG/MAB of 2.4x, which compares to Andfjord at 1.9x, Gigante at 1.4x and the best performing traditional farmers at ~1.8x. With no need for fallowing, more optimal water temperatures throughout the year, and a thorough production plan, the figures should be supported. Beyond this, the company could potentially expand in Norway. Although an additional 20't could be seen abroad, we have assumed that Indre Harøya will see an expansion of 20't.

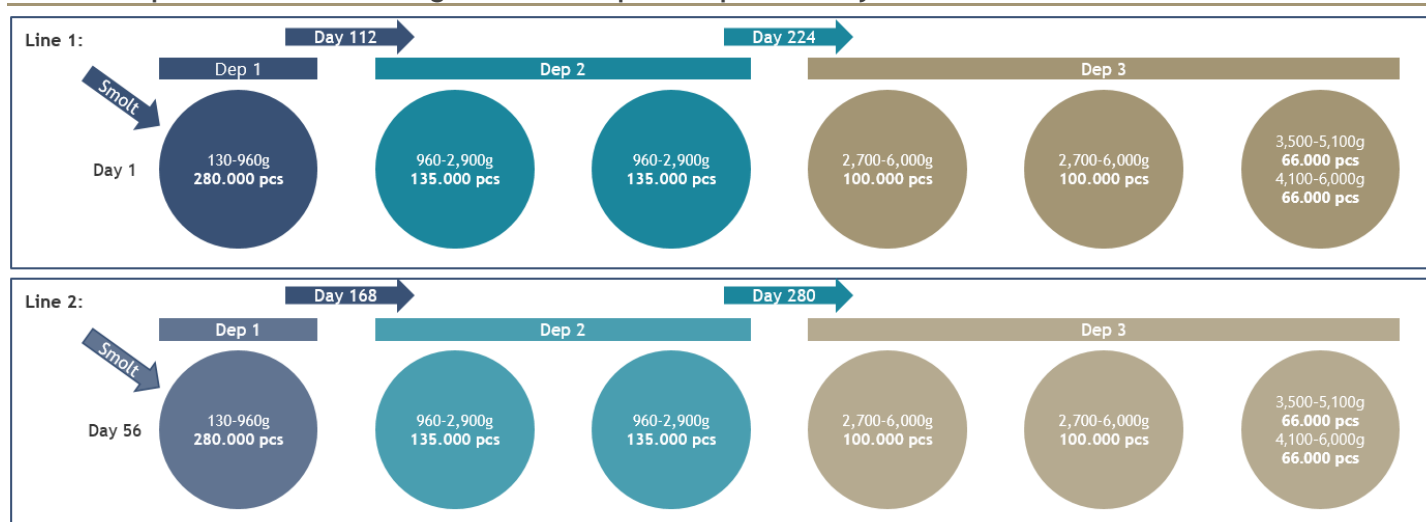
Indre Harøya: Licences for 31.5't HOG in place



Source: Arctic Securities Research, Company data

The company targets a production cycle of 336 days, or ~11 months from smolt to harvest, split into three stages (all lasting 112 days). In steady state production, 280' smolts with an average weight of 130g will be released every second month. In the first stage, only one tank is used to grow the fish up to ~1kg. The fish are then split into two new tanks where they will continue to grow for another 112 days. In the final stage, the fish are sorted by weight before being designated new tanks in order to optimize growth conditions. This stage uses three tanks and another 112 days before reaching the desired harvest weight of ~4.85kg. As illustrated below, this process repeats every 56 days, ensuring optimal productivity as well as reduced risk, as each tank serves as an independent biological zone. The tanks will be cleaned and disinfected in between movements of fish, eliminating the following period.

Production plan to minimize biological risk and optimize productivity



Source: Arctic Securities Research, Company data

South Korea

K-Smart Farming, the joint venture with Dongwon Industries, will have two identical phases each producing 8.4kt HOG per year. According to the stock exchange announcement on 26 February 2021 the initial CapEx for phase 1 was estimated to be NOK 1.4bn with construction start during 2022. There have been no new CapEx estimates since then, but construction is now expected to commence during 2023. Our estimates for South Korea include the same production ramp-up pace as Indre Harøy phase 1, with first harvest in Q4/25.

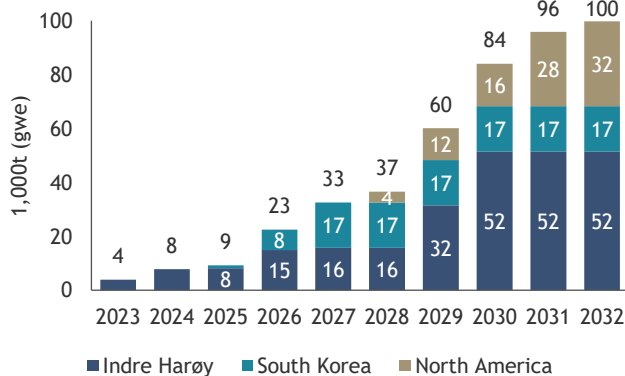
North America

The expansion into North America is said to be a replica of Indre Harøy, producing 31.5't HOG annually. We have implemented construction start during 2025, aligned with the company's target, and first harvest late 2028 (company guidance: early 2028), with steady state harvesting from all phases in 2031.

Volume assumptions

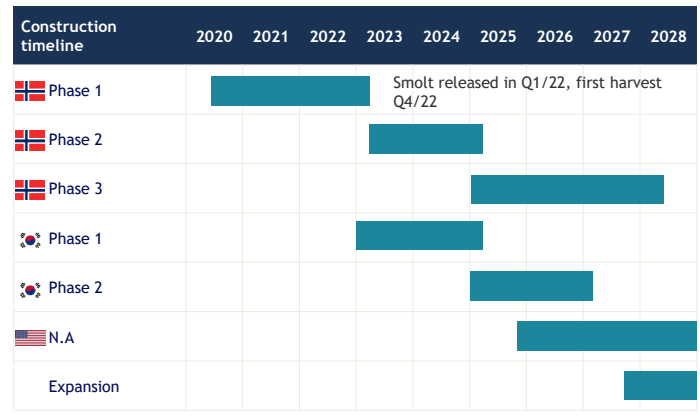
We have based our volume assumptions on the company's guidance, reaching 100't by 2032, although we deviate from the company's plan as we assume i) first harvest at Indre Harøy phase 2 in Q3/25 (company guidance: Q4/24 as of Q1/21), ii) first harvest in South Korea in Q4/25 (company guidance: Q2/25 as of Feb/21), iii) first harvest in North America in Q3/28 (company guidance: early 2028 as of Q4/22). In addition, we have assumed that the entire 20't expansion will take place in Norway, with contribution in 2030 (the 20't could be split between Norway and abroad, or be 100% abroad).

Arctic base case



Source: Arctic Securities Research, Company data

Tentative construction timeline as of Q4/22



Source: Arctic Securities Research, Company data

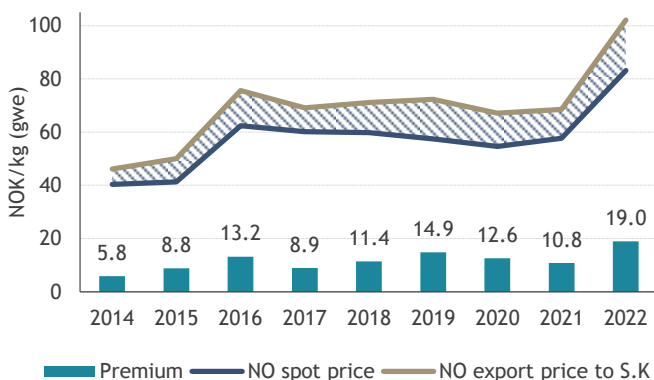
Price assumptions

We have implemented our salmon price assumptions for 2023-24 of NOK 78.5-77/kg, while our long-term base case is NOK 75/kg. This is based on the fact that the cost of farming has increased, combined with prospects of a healthy market balance on the back of capped supply growth, steady demand growth and price inflation. The company targets an additional ASC and size premium of NOK 5/kg for its salmon produced at Indre Harøy; however, we have not factored this in.

The cost of transporting fresh Norwegian salmon to South Korea was ~NOK 15/kg pre Covid-19 while the price spread has increased since 2020 due to reduced transportation capacity and the invasion of Ukraine (flights need to go south of the Siberian corridor). Nordic Aqua Partners recently said that the transportation cost from Norway to China was ~NOK 38/kg versus the 2021 average of NOK 21/kg.

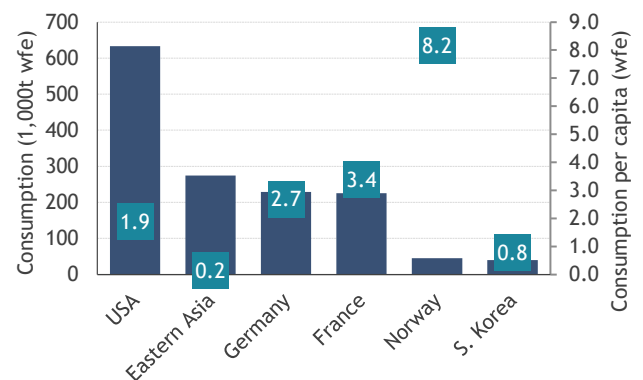
For K-Smart Farming we have implemented a price premium of NOK 25/kg explained by the average premium for Norwegian salmon in South Korea, combined with a logistical advantage of being close to end consumers in the Asian markets. For the operations in North America we expect a price premium of NOK 20/kg, backed by logistical advantages and access to a growing consumer market.

Avg. premium of ~NOK 12/kg (2014-2022) in S. Korea



Source: Arctic Securities Research, Norwegian Seafood Council

Consumption of Atlantic salmon



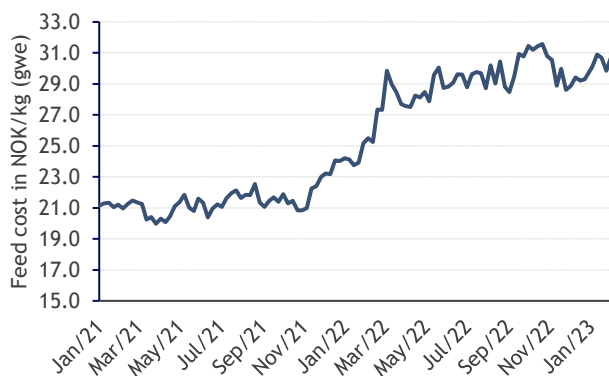
Source: Arctic Securities Research, Kontali, MOWI

Cost

According to the investor presentation dated 1 September 2020, the company targeted an EBIT cost of NOK 40.8/kg for phase 1 at Indre Harøy. For phase 2 and 3 the EBIT/kg costs target were NOK 38.6 and NOK 36.1 respectively, lower than phase 1 on the back of scale effects.

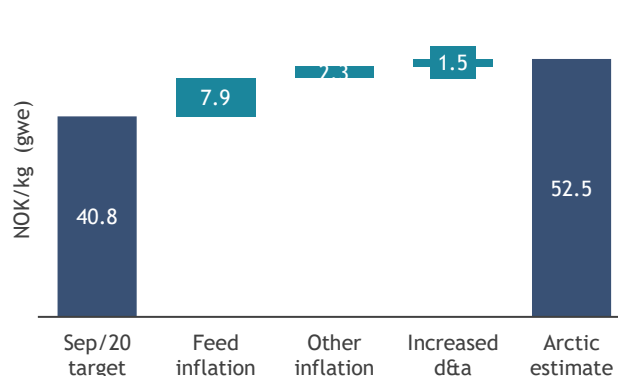
Since the company's cost targets were released the price of feed raw materials has increased significantly and we currently estimate the feed price in NOK to be around ~NOK 19/kg, compared to ~NOK 13/kg in Q3/20. With a FCR target of ~1.1, we believe the company is in a relatively better position to handle higher feed prices compared to traditional farmers at 1.27 in 2021.

Average feed cost for traditional farmers



Source: Arctic Securities Research, Kontali, FactSet

Indre Harøy phase 1: Initial target vs Arctic estimate



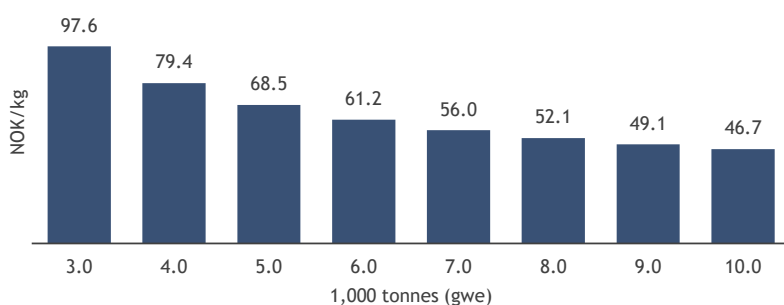
Source: Arctic Securities Research, Company data

As mentioned, feed prices have increased from ~NOK 13/kg to ~NOK 19/kg. With a FCR of 1.1 and a conversion rate from LWE to HOG of 0.84, we estimate that feed cost/kg HOG has increased from NOK 17 to NOK 25. In addition to higher feed costs, we have factored in ~15% inflation on other input factors and raised D&A per kilo produced on the back of higher CapEx estimates for phase 1. On the back of this we estimate a steady state EBIT cost of NOK 52.5/kg for Indre Harøy, -in-line with the company's target of being close to traditional farmers.

At its Q4/22 presentation, the company revealed the EBITDA cost/kg for its initial batches (including harvest cost but excluding G&A allocated to farming and growth OpEx related to its expansions). Batch 1 cost was NOK 79/kg, while the batch 2 status as of Dec/22 was NOK 56, supporting profitable farming operations in Q2/23.

As can be seen from the chart below, OpEx increases towards ~NOK 100/kg for volumes up to 3't, and steadily decreases to our steady state estimate when volumes hit ~8't. The sensitivity assumes that the only variable cost is feed, which in the real world is too simplistic.

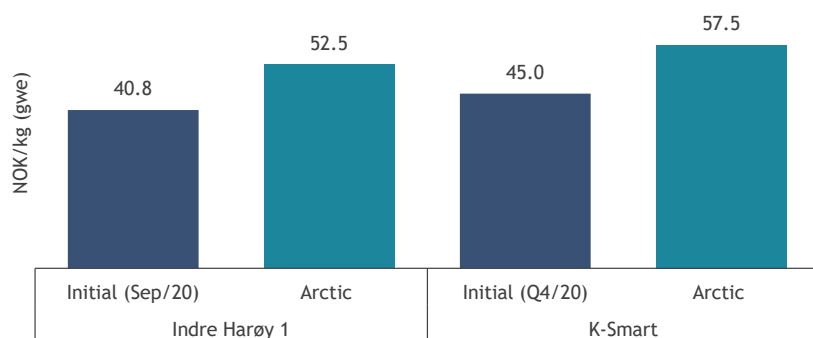
Indra Harøya phase 1: EBIT cost/kg based on different volumes



Source: Arctic Securities Research

At its Q4/20 presentation, the company provided cost guidance for K-Smart Farming, targeting NOK 44-46/kg for both phase 1 and 2. In South Korea, energy prices have traded >NOK 2/KWh, significantly above the historical average (2002-2021) of ~NOK 0.6/KWh and above NO3 prices in Norway. Despite historically high energy prices at the moment, it is possible to enter into long-term contracts on attractive terms, according to the company. We have factored in a ~NOK 5/kg higher cost for K-Smart Farming on the back of costlier feed as this needs to be imported, but from an EBIT/kg perspective the margin is higher due to the logistical advantage.

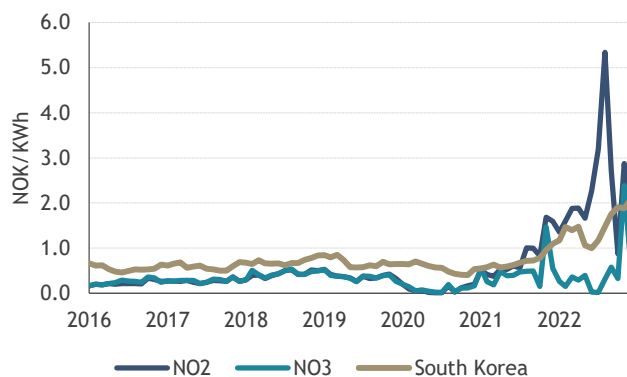
Cost estimates higher than initial guiding



Source: Arctic Securities Research, Company data

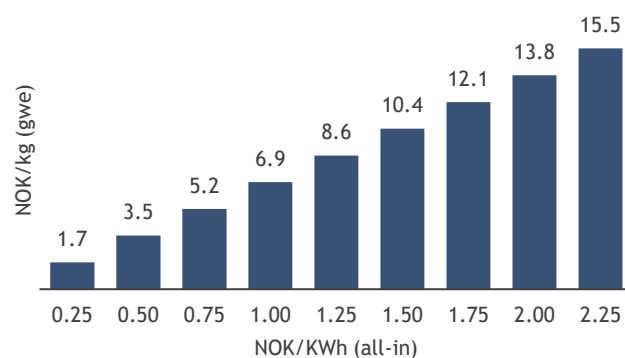
The company targets an energy consumption of KWh 5.8/kg (lwe), below the average traditional RAS facility of ~8 KWh. In Norway, the company should be in a comfortable situation given i) the mentioned fixed price agreement with Statkraft, and ii) being located in NO3 (Molde) with more stable and lower energy prices vs the southern part of Norway.

Norway: large regional energy price differences



Source: Arctic Securities Research, Nord Pool

Electricity cost sensitivity based on KWh 5.8/kg (lwe)

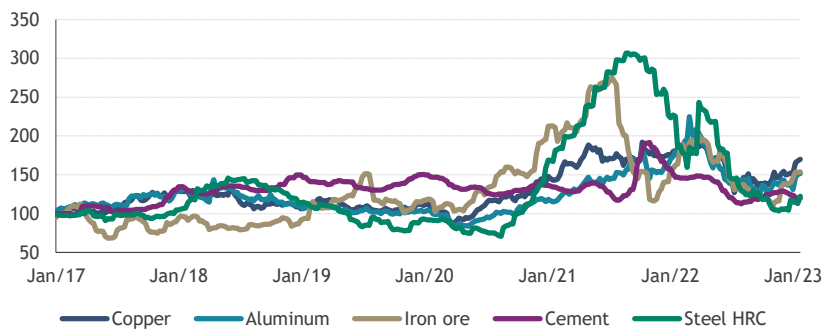


Source: Arctic Securities Research, Company data

CapEx

Indre Harøy. According to the admission document published on 17 September 2020, the company estimated a CapEx of NOK 1.2bn for phase 1, with production start in Q1/22 and first harvest in Q3/22. The results came in at -NOK 1.6 bn in CapEx, first smolt release in March 2022 and first harvest in November 2022. The revised CapEx was not surprising given the price increase in commodities such as iron, aluminium and cement during 2021/2022.

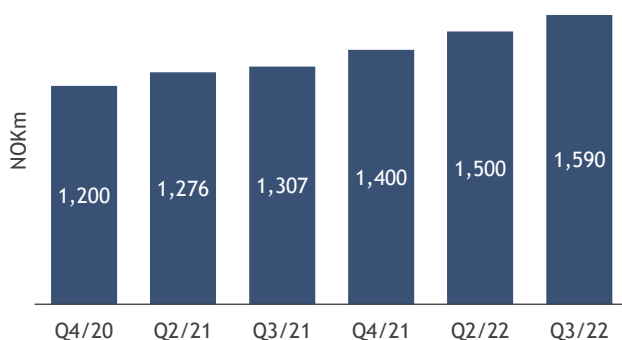
Commodity prices down from peak levels (rebased to Jan 2017)



Source: Arctic Securities Research, FactSet

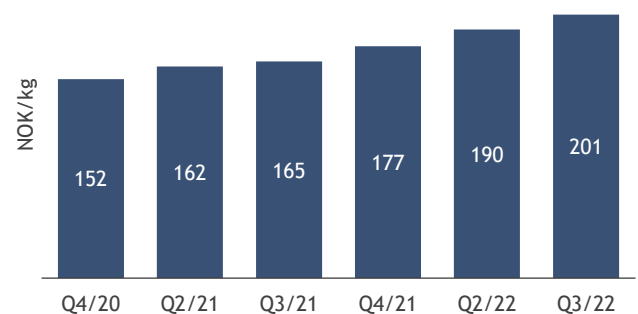
The admission document stated that CapEx for phase 2 will be in line with the first phase at NOK 1.2bn (NOK 152/kg) and Phase 3 was estimated at NOK 2.1bn (NOK 134/kg). The latest (as of Q1/22) CapEx estimate for phase 2 was NOK 1.3-1.4bn, while at the same time the estimate for phase 1 was NOK 1.4bn. In Q2/22 and Q3/22, Salmon Evolution highlighted that it sees inflation pressure on the raw material intensive part of the project, although it had cooled down somewhat. In Q4/22, the company said that it was seeing clear signs of normalization in the construction market, evidenced by an increasing level of availability amongst various types of suppliers relevant for phase 2. On the back of this, our base case reflects a CapEx of -NOK 1.6bn for both phase 1 and 2, and -NOK 2.5bn for phase 3 at Indre Harøy.

Indre Harøy phase 1: CapEx development (NOKm)



Source: Arctic Securities Research, Company data

Indre Harøy phase 1: CapEx development (NOK/kg)

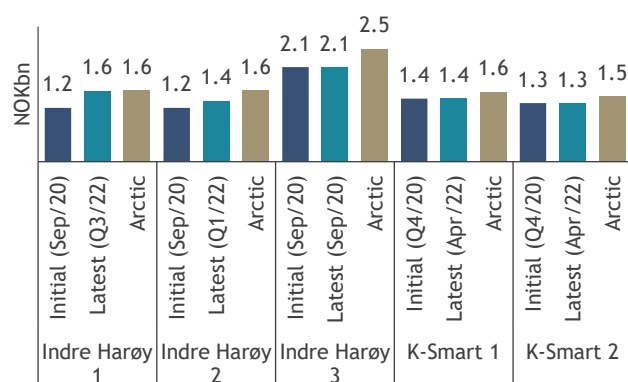


Source: Arctic Securities Research, Company data

K-Smart Farming. The initial CapEx estimates for K-Smart Farming were presented to the market in March 2021 and the figures were reiterated in April 2022. Salmon Evolution targets a CapEx of NOK 1.4bn and NOK 1.3bn investment for phase 1 and 2 respectively. Taking inflation into account, our CapEx estimates are -NOK 1.6bn for phase 1 and -NOK 1.5bn for phase 2, reflecting a CapEx/kg of NOK 185 and NOK 173.

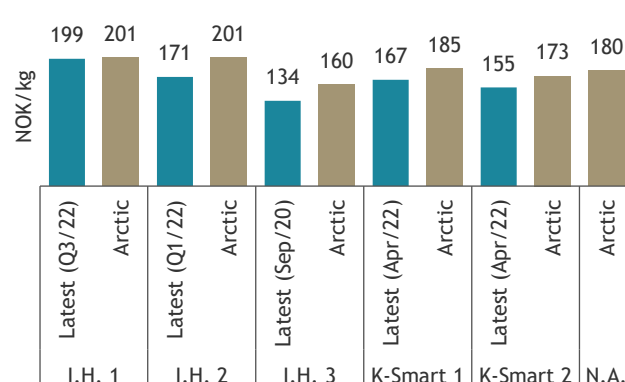
N. America. The plan in North America is to build a full scale 31.5't HOG "Indre Harøy" facility, but as no CapEx estimates have been disclosed we assume an equal investment of NOK 5.6bn (NOK 177/kg) for the whole facility.

Higher CapEx estimates due to inflation



Source: Arctic Securities Research, Company data

Latest guidance vs Arctic (in NOK/kg)



Source: Arctic Securities Research, Company data

As we have implemented higher CapEx estimates, we have higher D&A assumptions vs the company guidance. Salmon Evolution originally targeted a D&A for phase 1 of NOK 4.9/kg, based on the NOK 1.2bn CapEx estimate. Assuming an asset lifetime of ~31 years and implementing a CapEx of NOK 1.6bn we arrive at a D&A cost of NOK 6.5/kg.

Funding

Salmon Evolution has raised both debt and equity since its inception. Indre Harøy Phase 1 is fully funded and the debt package consists of the following credit facilities:

- NOK 525m senior secured credit facility with Nordea and Sparebanken Vest (the “Construction Facility”). NOK 525m in long-term debt which will refinance the Construction Facility once Indre Harøy phase 1 is completed:
 - NOK 385m senior secured term loan facility with Nordea and Sparebanken Vest (the “Term Loan Facility”)
 - NOK 140m long-term loan facility with Innovation Norway (the “IN Facility”)
- NOK 100m senior secured overdraft facility with Nordea to finance working capital (the “Overdraft Facility”)

As of Q4/22, the company had NOK 582m in GIBD, cash of NOK 279m and available liquidity of NOK 400m.

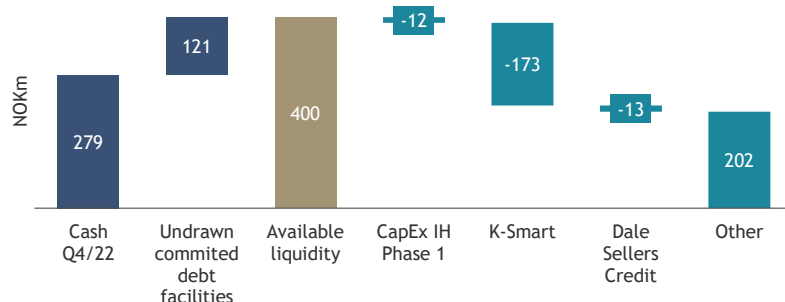
No investment decision has been made for Indre Harøy Phase 2 yet, but the NOK 300m private placement completed in April will partly (NOK 250m) be used to finance the second phase at Indre Harøy. If an investment decision is made, financing of phase 2 will include at least NOK 600-700m in debt (disclosed April 2022).

The company is currently in advanced discussions with banks for a new debt financing package including phase 2. The new debt package is expected to include:

- Re-financing of phase 1 at a higher loan-to-value
- Significantly higher leverage for phase 2 compared to phase 1
- Lower cost and an overall improved flexibility

Sources and uses as of Q4/22

**) Includes part financing of IH 2, Dale expansion and N.A project development costs*



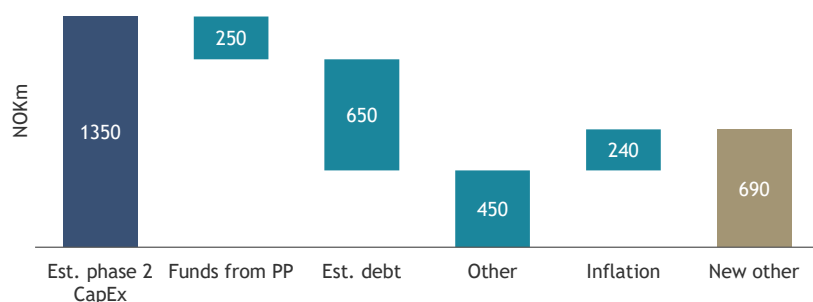
Source: Arctic Securities Research, Company data

As mentioned earlier, the capital structure of K-Smart Farming will consist of 25% equity and 75% debt and Salmon Evolution is estimated to contribute a total of NOK 200m in equity on a fully funded basis, split into three milestone payments. The first tranche of -NOK 27m was paid in Q1/22. Dongwon Industries is to facilitate the debt financing for the first phase at competitive levels. Phase 2 is said to be financed through operating cash flow from the first phase and new debt.

The smolt facility Dale, formerly Kraft Laks AS, was at the acquisition date in a net cash position, and in December 2022, Salmon Evolution announced that it had signed a NOK 52m debt financing package in relation to Dale. As a part of the Phase 2 build out at Indre Harøy, Salmon Evolution plans to expand its smolt facility, and if realized (dependent on phase 2), further debt financing is expected for the smolt facility.

Salmon Evolution will need further financing in order to initiate construction of phase 2. From the NOK 300m private placement in April 2022, the company raised -NOK 250m to fund phase 2, targeted NOK 600-700m debt, while NOK 350-575m will come from operations, new equity and other. Our CapEx estimate of -NOK 1.6bn for phase 2 implies that -NOK 690m is unfunded and we have assumed that the company will need to raise NOK 500m in new equity during 2023 to fully fund phase 2, resulting in -61m new shares being printed. The company's aggressive growth plan also implies a capital need for the remaining phases and our base case reflects additional funding from new debt. From the IPO presentation in September 2020, the company estimated to be fully funded with debt and operational cash flow for phase 3 while NOK 700m in equity was targeted for phase 2.

Phase 2 funding plan from April 2022 and Arctic estimate



Source: Arctic Securities Research, Company data

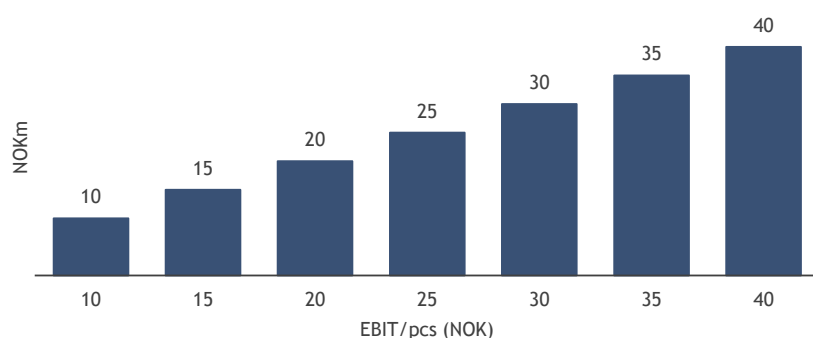
Optionality related to optimization and potential sale of post-smolts

The current focus is on achieving steady-state production (7.9't) at Indre Harøy while the company sees several opportunities to unlock its long-term potential through optimizing production, feed, genetics and AI. On optimizing production, Salmon Evolution sees that it has potential spare capacity on its first 2 tanks, which could enable the company to increase planned smolt releases per year (currently at 6 and could move towards 7) and/or utilizing spare tank capacity for post-smolt.

At its Q4/22 presentation, the CEO said that the spare tank capacity could support sales of ~1m post-smolts at 700g. The variable cost linked to this would be i) purchase of smolts (-NOK 18/pcs), ii) feed cost (NOK 15/pcs) and oxygen (NOK 2/pcs), totaling -NOK 35/pcs. Assuming a sales price of NOK 60-70/pcs, the EBIT contribution could be NOK 25-35m per Indre Harøy phase of 7.9't.

We have not factored in the above into our estimates, but believe it could provide upside potential and optionality longer-term, on both Indre Harøy phase 1 and additional phases.

Potential EBIT scenarios (per 7.9't facility, selling 1m post-smolts)



Source: Arctic Securities Research

The table on the following page summarizes our key estimates and assumptions.

Estimates summary

Key estimates

Salmon Evolution (NOKm)		New estimates				Changes-abs			Changes-%		
	2021	2022e	2023e	2024e		2022e	2023e	2024e	2022e	2023e	2024e
Sales	12	48	304	605	-	-	-	-	-	-	-
EBITDA	-35	-68	56	242	-	-	-	-	-	-	-
D&A and impairment	-2	-6	-41	-51	-	-	-	-	-	-	-
EBIT pre FV adj.	-38	-75	15	190	-	-	-	-	-	-	-
Reported EBIT	-38	-75	15	190	-	-	-	-	-	-	-
ACs	-1	-1	-23	-38	-	-	-	-	-	-	-
Reported EBIT incl. ACs	-38	-76	-8	152	-	-	-	-	-	-	-
Net financial expense	5	31	-31	-59	-	-	-	-	-	-	-
PTP	-33	-44	-39	94	-	-	-	-	-	-	-
Tax	-	-	-0	-5	-	-	-	-	-	-	-
Net profit	-33	-44	-39	89	-	-	-	-	-	-	-
EPS (NOK)	-0.1	-0.1	-0.1	0.2	-	-	-	-	-	-	-
EBIT (NOKm)											
Indre Harøy	-	-21	39	190	-	-	-	-	-	-	-
North America	-	-	-	-	-	-	-	-	-	-	-
Total	-	-21	39	190	-	-	-	-	-	-	-
Harvest tonnes (gwe)											
Indre Harøy	-	340	3,995	7,900	-	-	-	-	-	-	-
North America	-	-	-	-	-	-	-	-	-	-	-
Total consolidated	-	340	3,995	7,900	-	-	-	-	-	-	-
K-Smart (49%)	-	-	-	-	-	-	-	-	-	-	-
Total farming (incl. AC's)	-	340	3,995	7,900	-	-	-	-	-	-	-
EBIT/kg (NOK gwe)											
Indre Harøy	-	-63	10	24	-	-	-	-	-	-	-
North America	-	-	-	-	-	-	-	-	-	-	-
Total consolidated	-	-63	10	24	-	-	-	-	-	-	-
K-Smart (49%)	-	-	-	-	-	-	-	-	-	-	-
Total farming (incl. AC's)	-	-63	10	24	-	-	-	-	-	-	-
Spot price assumptions	81	79	77	75	-	-	-	-	-	-	-

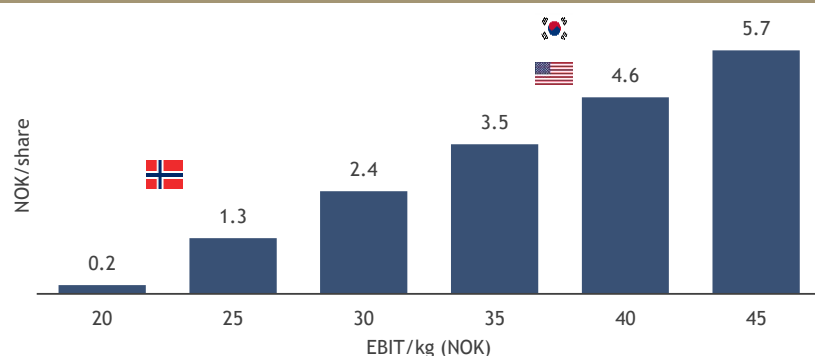
Source: Arctic Securities Research, Company data

Valuation

Norway vs abroad

Salmon Evolution has since inception harvested valuable competence and experience from Indre Harøy. Although the company's Norwegian farming assets will contribute earnings and valuation potential, the international expansion plans represent significant valuation potential longer-term. The chart below illustrates this and the reason is the higher EBIT/kg margin in the end-consumer market versus fob Norway.

NPV* scenarios of a 10't HFS project

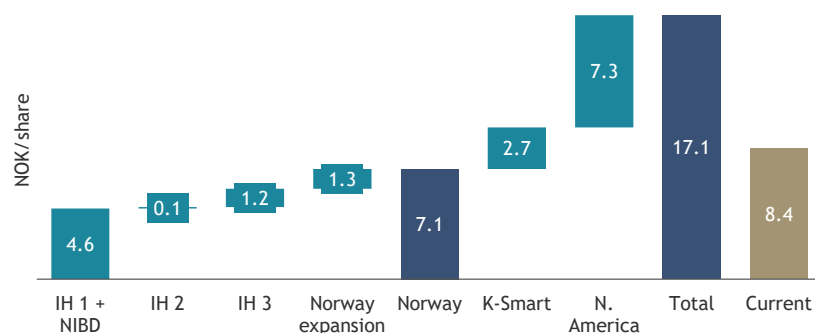


Source: Arctic Securities Research, *) based on a 10% WACC, exit EV/EBIT of 12x, 3 years from construction start to first harvest, CapEx/kg of NOK 200, current share count of 345.8m

Buy recommendation with a NOK 12 target price

We initiate coverage on Salmon Evolution with a Buy recommendation and a target price of NOK 12 per share, representing a 30% discount to our DCF model. As the company targets significant volume growth prospects, we find a DCF approach to valuation as the most appropriate. We have based our base case valuation scenario on a WACC of 10% and a terminal growth rate of 2%, and we have illustrated sensitivities with respect to various WACC levels. Our base case is furthermore based on a blended EBIT/kg margin in the terminal period (starting 2032) of NOK 29/kg (derived from NOK 22/kg in Norway, NOK 40/kg in S. Korea and NOK 35/kg in N. America) and the terminal EV/EBIT multiple is ~12x. We have also illustrated sensitivities with regards to various EBIT/kg margins in the terminal period.

DCF based SOTP



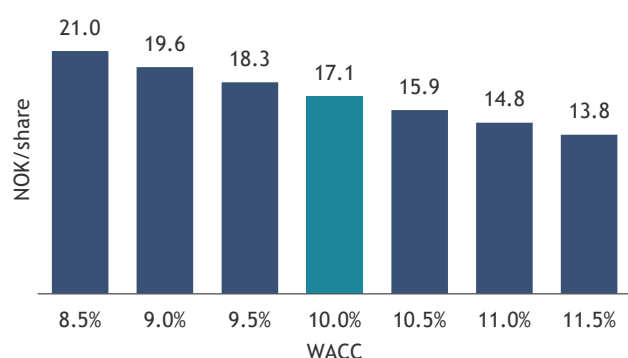
Source: Arctic Securities Research

Base case DCF assumptions for Indre Harøya and output

DCF (NOKm)	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	CV
Harvest volumes	3,995	7,900	8,240	14,905	15,800	15,800	31,500	51,500	51,500	51,500	52,530
y-y		3,905	340	6,665	895	0	15,700	20,000	0	0	1,030
EBIT/kg	12	24	22	22	22	22	22	22	22	22	22
EBIT	47	190	182	329	349	349	696	1,138	1,138	1,138	1161
-Tax	-10	-42	-40	-72	-77	-77	-153	-250	-250	-250	-255
NOPAT	37	149	142	257	272	272	543	888	888	888	905
+Depreciation	51	51	77	103	103	103	183	297	297	297	297
-ΔWC	-100	-98	-9	-167	-22	0	-393	-500	0	0	-26
Growth CapEx	-497	-636	-477	-835	-835	-2,589	-1,755	0	0	0	0
Maintenance CapEx	-4	-8	-8	-15	-16	-16	-32	-52	-52	-52	-53
-Total CapEx	-501	-644	-485	-850	-851	-2,605	-1,786	-52	-52	-52	-53
FCF	-513	-542	-275	-657	-498	-2,230	-1,452	633	1,133	1,133	1,124
Discount factor	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
PV	-466	-448	-206	-449	-309	-1,259	-745	295	480	437	433
NPV FCF '23-32	-2,670								WACC		10.0%
NPV CV	5,371								EV/EBIT CV multiple		12.0x
EV	2,701										
-NIBD (Q4/22 adj.)	-197										
Equity value	2,898										
Fair value/sh (NOK)	7.1										

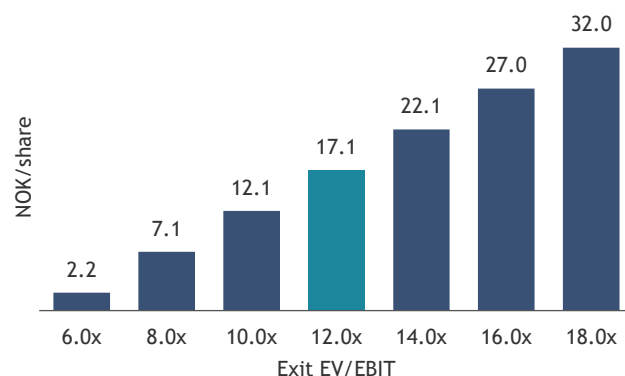
Source: Arctic Securities Research

Equity value sensitivities based on WACC



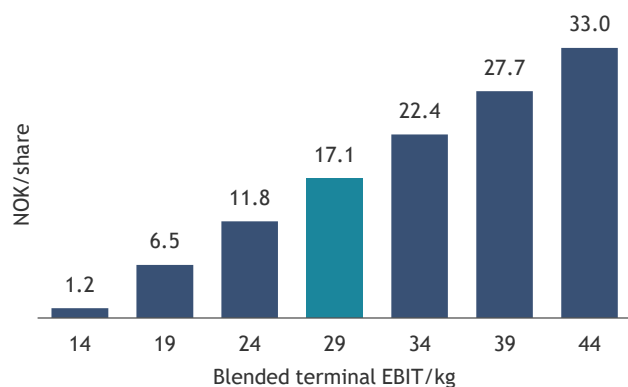
Source: Arctic Securities Research

Equity value sensitivities based on EV/EBIT



Source: Arctic Securities Research

Equity value sensitivities based on terminal EBIT/kg



Source: Arctic Securities Research

Equity value per share sensitivities based on terminal EBIT and EV/EBIT

EBIT/kg (NOK)	EV/EBIT						
	6.0x	8.0x	10.0x	12.0x	14.0x	16.0x	18.0x
14	-5.8	-3.4	-1.1	1.2	3.5	5.8	8.2
19	-3.1	0.1	3.3	6.5	9.7	12.9	16.1
24	-0.5	3.6	7.7	11.8	15.9	20.0	24.0
29	2.2	7.1	12.1	17.1	22.1	27.0	32.0
34	4.8	10.7	16.5	22.4	28.2	34.1	39.9
39	7.5	14.2	20.9	27.7	34.4	41.1	47.9
44	10.1	17.7	25.3	33.0	40.6	48.2	55.8

Source: Arctic Securities Research

Upcoming triggers

An overview of the key trigger list can be seen below:

Indre Harøy

- The company has delivered supportive KPIs so far from its first batch and continued supportive biological performance is needed
- Profitable farming operations in Q2/23
- Steady state phase 1 harvest from late Q3/23
- New CapEx estimates for phase 2 & 3, and further funding is needed to grow volumes, which is needed to reach our base case
- Additional licences needed to realize expansion plan beyond 31.5't

K-Smart Farming (49% JV)

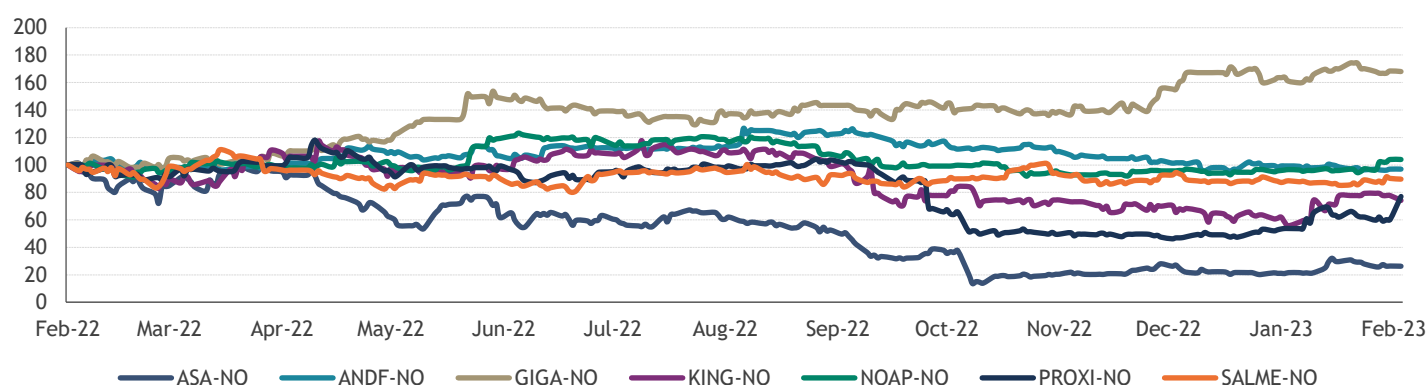
- Positive development on licences
- Updated timeline: construction start (during 2023 as of Q4/22), first harvest (~medio 2025 as of Q3/22)
- Updated CapEx and cost targets

North America

- Site location, positive development on licences and funding
- Updated timeline: construction start (2025 or 2026 as of Q4/22), first harvest (early 2028 as of Q4/22)

Salmon Evolution has been relatively stable versus most of its land-based peers lately. It is worth highlighting that share trading liquidity for the land-based players is relatively modest vs the conventional farmers, and SALME has a daily average volume (last three months) of NOK 4.6m, ASA NOK 4.3m, ANDF NOK 0.7m while the remaining companies are below NOK 0.4m.

Land-based peers share price performance, LTM (rebased to 100)



Source: Arctic Securities Research, FactSet

Key risk factors

As salmon farming is a capital-intensive industry, the business plan involves high operational risk and we have highlighted what we perceive to be some of the key risk factors below.

Supply risk

The salmon price is, and has been, volatile and deviations from our assumptions could cause substantial deviations from our base case. Land-based farming can together with traditional farming methods and new technologies represent additional supply growth, hence representing a risk to the future market balance.

Project risk

Salmon Evolution is still in an early stage with a limited volume track record. We see project risk related to targeted harvest volumes, CapEx, working capital and OpEx.

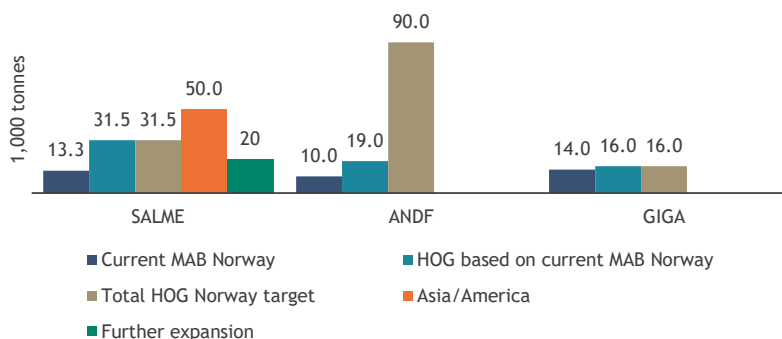
Biological risk

Although there has been a strong trend of transferring a higher proportion of the production cycle to land-based RAS facilities in order to grow the smolts larger before transfer to sea, no companies have yet demonstrated the ability to complete full-grow out cycles of salmon at land-based facilities on a large scale. In any salmon farm the risk of “something happening” in terms of diseases, natural conditions, equipment issues and other factors will be there. Our base case does not factor in any extraordinary events which could significantly alter our base case scenario.

Political risk

On 28 September, the Norwegian government proposed to introduce a resource tax on salmon and trout farming of 40% with effect from 2023. The proposal is limited to traditional commercial licences, and as such, land-based farming will not be impacted by the proposal, although it could represent risk if the industry matures. On 20 December 2022, the Norwegian Ministry of Trade, Industry and Fisheries announced a temporary halt to applications for all new land-based licences. The suspension, initially for 6 months, will run until new regulations for aquaculture on land are in place. Salmon Evolution has permits to produce 31.5't HOG on Indre Harøy, although the recent news flow could represent risk if the company needs additional licences in Norway to reach 100't.

Salmon Evolution with ~50't HOG planned outside of Norway



Source: Arctic Securities Research, Company data

Energy prices

On the back of a tight market balance partly due to the invasion of Ukraine, combined with fluctuating temperatures, we have seen energy prices in Europe exceeding record levels and becoming more volatile. The company has a PPA for its power consumption at Indre Harøy for 2023, and lack of long-term contracts from 2024 beyond could represent a risk to our base case.

Financial/funding risk

In order for Salmon Evolution to realize its ramp-up plan it will need to have access to capital markets, both from an equity and debt perspective. Failure to obtain the necessary capital when needed could result in project delays. In our view, Salmon Evolution will likely have to show successful biological performance from its first phase before being able to obtain additional debt financing. As of Q4/22, the company had NOK 278.8m in cash and total available liquidity of NOK 400m.

Value chain risk

Salmon Evolution focuses on the growth cycle for salmon and is therefore not a vertically integrated company. As a result, Salmon Evolution is dependent on feed from external sources as well as partners with capabilities for harvesting and processing the salmon for sale to the end market.

Largest shareholders

Salmon Evolution's four co-founders are Ingjarl Skarvøy (COO), Kristoffer Reiten, Jonny Småge and Per Olav Mevold, all with a long track-record from the salmon industry in various positions along the value chain. Both Mr Reiten and Mr Mevold owns and hold positions in the pelagic processing company Vikomar. Mr Småge serves as vice president at the processing facility Vikenco, while Mr Skarvøy is currently serving as Salmon Evolution's Chief Operating officer. They are all still invested and can be found among the largest shareholders in Salmon Evolution.

Top shareholders as of February 2023

#	Investor	No. Shares	Ownership
1	RONJA CAPITAL II AS	27,393,242	7.9%
2	THE BANK OF NEW YORK MELLON SA/NV	22,310,787	6.5%
3	FARVATN PRIVATE EQUITY AS	17,649,433	5.1%
4	HONGKONG AND SHANGHAI BANKING CORP	16,044,572	4.6%
5	ROFISK AS	14,537,897	4.2%
6	STETTE INVEST AS	11,569,338	3.4%
7	KJØLÅS STANSEKNIVER AS	11,207,738	3.2%
8	MEVOLD INVEST AS	8,141,141	2.4%
9	LYNGHEIM INVEST AS	7,994,252	2.3%
10	JAKOB HATTELAND HOLDING AS	7,810,734	2.3%
11	EWOS AS	7,441,374	2.2%
12	BORTEBAKKEN AS	7,440,522	2.2%
13	J.P. MORGAN SE	7,198,784	2.1%
14	VERDIPAPIRFONDET DNB NORGE	5,717,376	1.7%
15	NORDNET LIVSFORSIKRING AS	5,603,406	1.6%
Top shareholders		178,060,596	51.5%
Total		345,754,822	100%

Source: Arctic Securities Research, Infront

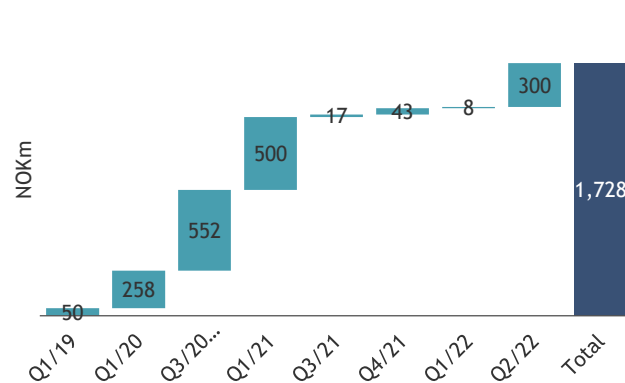
Salmon Evolution was admitted for trade on the Euronext growth on 18 September 2020, following a private placement of NOK 500m. Under a year later on 19 July 2021, the company had its first trading day on the Oslo Stock Exchange and has raised a total of NOK 1,728m in total. The company IPO'ed at NOK 5/share and the latest private placement was carried out in April at NOK 9/share.

Share price developments



Source: Arctic Securities Research, FactSet

Equity raises to date



Source: Arctic Securities Research, Company data

Management and Board of Directors

Management team

Salmon Evolution has been successful in putting together a dedicated and competent management team with long experience in business development and the aquaculture industry.

Trond Håkon Schaug-Pettersen - CEO (Chief Executive Officer)

Mr. Schaug-Pettersen joined Salmon Evolution in January 2021 as the CFO. Since the departure of former CEO Håkon André Berg, Trond Håkon took over the position as an interim CEO in addition to his CFO position. In January 2023, he was appointed CEO. He has experience with corporate finance from the investment bank Swedbank and as a Senior Vice President from the seafood company Hofseth Internation, prior to joining Salmon Evolution. Mr. Schaug-Pettersen own 400' shares and holds 2.4m options in Salmon Evolution.

Trond Vadset Veibust - CFO (Chief Financial Officer)

Mr. Veibust joined Salmon Evolution in January 2023 as the CFO. Veibust has experience from Ernst & Young, as well as working for Ekornes AS with various strategic positions for the past 8 years, most recently as senior vice president for the company's global operations. He holds a MSc in Audit and Accounting from the Norwegian School of Economics.

Ingjarl Skarvøy - COO (Chief Operating Officer)

Mr. Skarvøy is one of the founders of Salmon Evolution. He has more than 30 years' experience from the aquaculture industry with various positions in companies like Mowi, Raumagruppen and SalMar. He served as the company's first CEO and has since 2019 been utilizing his experience as the company's COO. Mr. Skarvøy owns 1.8m shares and holds 750' options in Salmon Evolution.

Kamilla Mordal Holo - CPO (Chief Project Officer)

Ms. Holo joined the company in 2019 as a project manager, before being promoted to CPO in May 2020. She has over 16 years of experience from the construction industry with roles as project manager at the Norwegian Public Road Administration (Statens vegvesen) and as project and construction manager at engineering and consultancy company 3S Project. Ms. Holo own 160' shares and holds 750' options in Salmon Evolution.

Odd Frode Roaldsnes - CCO (Chief Commercial Officer)

Mr. Roaldsnes joined Salmon Evolution in 2021. Prior to Salmon Evolution, Odd Frode worked in the seafood company Ocean Supreme as a Sales Director with focus on the Asian markets. He will in addition to working on commercial strategies in Norway, be the company's head of Asia and focus on the JV with Dongwon Industries in South Korea. Mr. Roaldsnes holds 750' options in Salmon Evolution.

Henriette Nordstrand - Technical Director

Ms. Nordstrand joined Salmon Evolution in 2022 as a Technical Director. Prior to joining the company she worked as a Hatchery Plant Manager in Hofseth Aqua AS. In addition to work experience from the industry she holds a MSs in Aquamedicine from the University of Bergen, and has also studied RAS at the Norwegian University of Science and Technology (NTNU).

Board Members

Tore A. Tønseth - Chairman of the Board

Mr. Tønseth is the investment vice president at Ronja Capital, Salmon Evolution's largest shareholder. He has experience as an equity analyst covering the seafood sector, and as product manager and system developer from various start-ups.

Peder Stette - Board member

Mr. Stette has worked in the seafood industry for the last 25 years, and played an important role in developing Peter Stette AS before the company merged with Optimar in 2014. After retiring from his roles as CTO and CCO in Optimar he is now CEO of Stette Holding, a family investment company. Stette Holding is through Stette Invest AS one of Salmon Evolution's largest shareholders.

Anne Breiby - Board member

Ms. Breiby has a strong track record within the seafood industry with various positions including Director of Fisheries in Nordland county, Organisation Secretary for the Norwegian Fish Farmers Association, political adviser in the Ministry of Fisheries and State Secretary (junior minister) in the Ministry of Trade and Industry.

Ingvild Vartdal - Board member

Ms. Vartdal has a law degree and is currently a lawyer and partner at Adviso Advokatfirma AS. She specializes in corporate and international tax, and has worked in industries such as fishing, shipping, and finance. Vartdal has previously worked at Advokatfirmaet Schjødt AS, KPMG Law, and as a legal consultant at Bærum tax office.

Janne-Grethe Strand Aasnæs - Board member

Ms. Aasnæs is the CEO and majority owner of Strand Havfiske AS, a fishing company based in Ålesund that primarily focuses on whitefish and pelagic operations. Before her current role, Aasnæs worked in the financial industry as a financial analyst and portfolio manager. She holds an MBA and is a Certified Financial Analyst (CFA).

Glen Bradley - Board member

Mr. Bradley is chair of Rofisk AS, one of Salmon Evolution's biggest shareholders. Bradley has over 20 years of experience in the salmon and well-boat industry from companies like Mowi and Rostein, and has been a board member of Salmon Evolution since 2019.

Eunhong Min - Board member

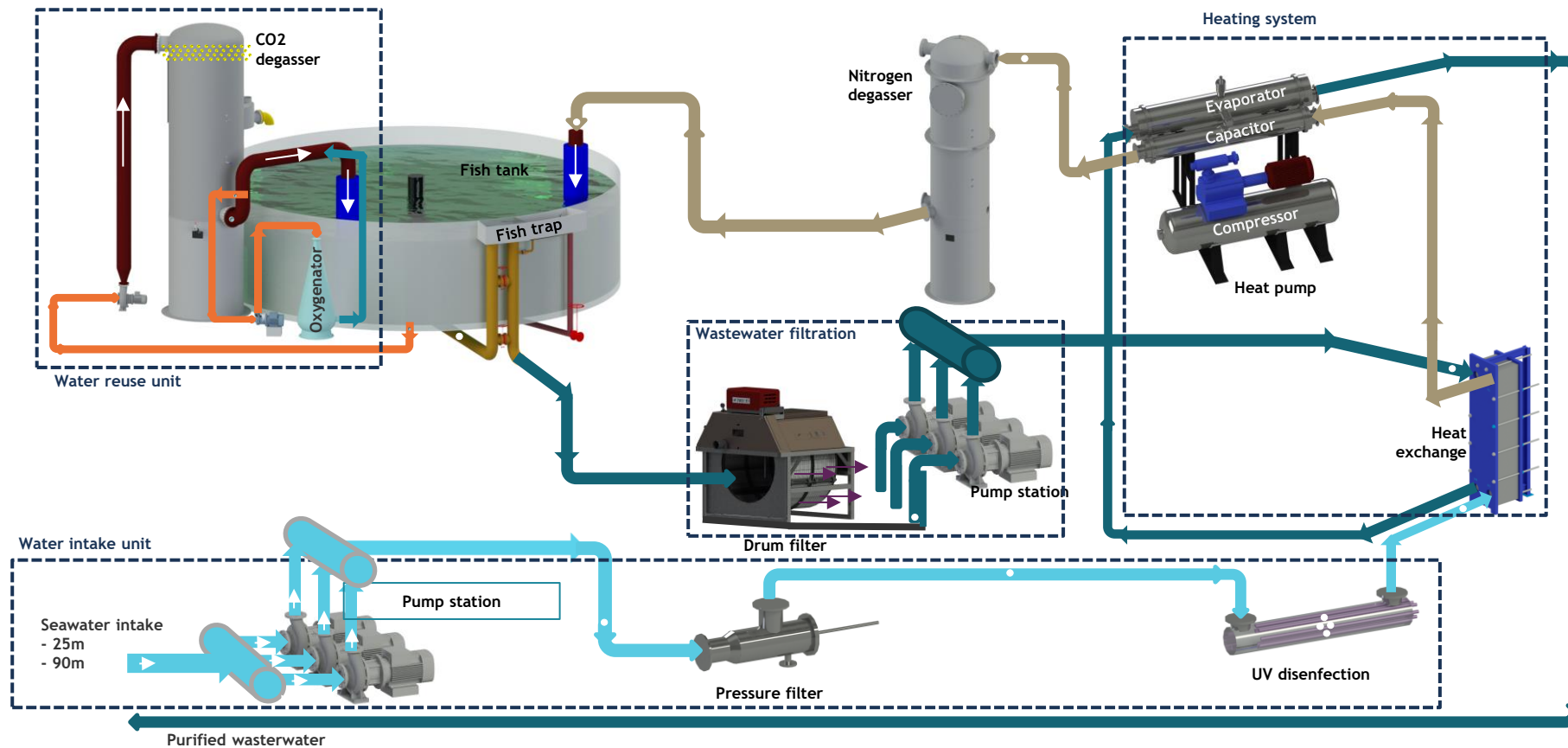
Mr. Min is the CEO of Dongwon Industries, one of the largest shareholders in Salmon Evolution and partner for the JV in South Korea. He spent 27 years with Protector & Gamble and has broad international business experience.

Håkon André Berg - Board member

Mr. Berg is the former CEO and CFO of Salmon Evolution, and has 15 years' industrial and financial experience. Prior to joining Salmon Evolution he worked for Broodstock Capital Partners and Midvestor Management, among others.

Appendix

Overview of Indre Harøy system design



Source: Arctic Securities Research, Company data

Profit & loss statement

Profit and loss (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Revenue	12.26	47.68	303.60	605.14
Cost of sales	(0.91)	(9.22)	(136.26)	(218.08)
Other (gain on sale etc.)	(46.82)	(106.95)	(116.59)	(145.39)
Operating expenses	(47.72)	(116.16)	(252.85)	(363.46)
EBITDA	(35.47)	(68.48)	50.75	241.68
Depreciation	(2.23)	(6.19)	(40.58)	(51.29)
EBIT	(37.70)	(74.67)	10.18	190.38
Interest expense	(7.48)	(11.06)	(34.91)	(61.91)
Interest income	12.52	42.21	3.41	3.24
Net interest	5.04	31.15	(31.50)	(58.66)
Share of JV and ass. companies	(0.63)	(0.95)	(22.96)	(38.15)
Pre-tax profit	(33.29)	(44.47)	(44.28)	93.57
Income tax	-	-	(0.00)	(3.50)
Net income	(33.29)	(44.47)	(44.28)	90.07
Attributable to				
Equity holders of the parent	(33.29)	(44.47)	(44.28)	90.07
Per share data (NOK)	Dec-21	Dec-22	Dec-23e	Dec-24e
Revenue per share	0.04	0.15	0.81	1.49
Adj. EPS	(0.11)	(0.14)	(0.12)	0.22
Adjusted data (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Adj. revenue	12.26	47.68	303.60	605.14
Adj. EBITDA	(35.47)	(68.48)	50.75	241.68
Adj. EBIT	(37.70)	(74.67)	10.18	190.38
Adj. net profit	(33.29)	(44.47)	(44.28)	90.07
Margins	Dec-21	Dec-22	Dec-23e	Dec-24e
Gross margin	92.6%	80.7%	55.1%	64.0%
EBITDA margin	(289.4%)	(143.6%)	16.7%	39.9%
Adj. EBITDA margin	(289.4%)	(143.6%)	16.7%	39.9%
EBIT margin	(307.6%)	(156.6%)	3.4%	31.5%
Adj. EBIT margin	(307.6%)	(156.6%)	3.4%	31.5%
Net profit margin	(271.6%)	(93.3%)	(14.6%)	14.9%
Adj. net profit margin	(271.6%)	(93.3%)	(14.6%)	14.9%
Year-over-year growth	Dec-21	Dec-22	Dec-23e	Dec-24e
Revenue growth		289.0%	536.7%	99.3%
EBITDA growth		93.1%		376.2%
EBIT growth		98.1%		1770.7%
Net profit growth		33.6%	(0.4%)	

Source: Arctic Securities Research and Company

Balance sheet

Balance sheet (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Property, plant and equipment	987	1,744	2,204	2,797
Right-of-use assets	2	13	13	13
Intangible assets	63	65	65	65
Share of JV, ass. comp. and other inv.	26	27	70	156
Other non-current financial assets	-	1	1	1
Total non-current assets	1,078	1,850	2,353	3,032
Inventories	15	61	152	250
Receivables	107	116	68	70
Cash and cash equivalents	506	279	137	51
Total current assets	628	455	357	371
Total assets	1,705	2,305	2,711	3,403
Equity attributable to the parent	1,291	1,564	2,020	2,110
Total equity	1,291	1,564	2,020	2,110
Long-term interest-bearing debt	220	513	513	1,113
Non-current lease liabilities	1	10	10	10
Other non-current financial liabilities	7	0	0	(0)
Other non-current liabilities	-	9	9	9
Total non-current liabilities	228	531	531	1,131
Short-term interest-bearing debt	13	55	55	55
Current lease liabilities	1	4	4	4
Payables	162	135	85	87
Other current financial liabilities	5	6	6	6
Other current liabilities	6	10	10	10
Total current liabilities	187	210	160	162
Total equity and liabilities	1,705	2,305	2,711	3,403
Balance data (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Gross debt	233	569	569	1,169
Net interest bearing debt	(272)	290	431	1,117
Net interest bearing debt and lease liabilities	(270)	303	445	1,131
Working capital	(46)	32	125	223
Capital employed	1,019	1,854	2,451	3,227

Source: Arctic Securities Research and Company

Cash flow

Cash flow statement (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Net profit	(33.3)	(32.7)	(44.3)	90.1
D,A&I	1.5	6.2	40.6	51.3
Change in working capital	(76.9)	(28.3)	(93.9)	(97.2)
Other	-	(14.5)	-	-
Cash flow from operations	(108.7)	(69.4)	(97.6)	44.2
Capital expenditures	(767.9)	(774.4)	(501.0)	(643.9)
Other	4.7	(31.6)	(43.1)	(86.3)
Cash flow from investing activities	(763.2)	(806.0)	(544.1)	(730.2)
New debt	234.1	356.3	-	600.0
Repayment of debt	(40.4)	(13.3)	-	-
Change in debt	193.7	342.9	-	600.0
Equity issue	536.0	294.5	500.0	-
Other	(0.1)	11.1	-	-
Cash flow from financing activities	729.6	648.6	500.0	600.0
Net cash flow	(142.3)	(226.8)	(141.7)	(86.0)

Cash flow data (NOKm)	Dec-21	Dec-22	Dec-23e	Dec-24e
Free cash flow to firm	(872.0)	(864.2)	(641.7)	(686.0)
Free cash flow to equity	(678.3)	(521.3)	(641.7)	(86.0)

Source: Arctic Securities Research and Company

Key ratios & Valuation

Market data	Dec-21	Dec-22	Dec-23e	Dec-24e
Avg. shares outstanding (m)	291.3	318.5	376.2	406.7
Avg. diluted shares outstanding (m)	298.9	326.2	383.0	412.6
Enterprise value	2,645	3,218	3,359	4,045
Credit metrics	Dec-21	Dec-22	Dec-23e	Dec-24e
NIBD / EBITDA (x)	7.67	(4.23)	8.50	4.62
IBD / EBITDA (x)	(6.58)	(8.30)	11.20	4.84
IBD / (EBITDA - capex) (x)	(0.29)	(0.67)	(1.26)	(2.91)
IBD / Total assets	13.7%	24.7%	21.0%	34.3%
Operating cash flow / IBD	(46.6%)	(12.2%)	(17.2%)	3.8%
Free cash flow / IBD	(373.6%)	(152.0%)	(112.9%)	(58.7%)
EBITDA / Interest (x)	(4.74)	(6.19)	1.45	3.90
EBITDA / (Interest+Amortisation) (x)	(4.74)	(6.19)	1.45	3.90
Equity / total assets	75.7%	67.8%	74.5%	62.0%
Profitability	Dec-21	Dec-22	Dec-23e	Dec-24e
FCFF yield	(27.5%)	(27.2%)	(20.2%)	(21.6%)
FCFE yield	(21.4%)	(16.4%)	(20.2%)	(2.7%)
ROE		(3.1%)	(2.5%)	4.4%
ROACE		(5.2%)	0.5%	6.7%
Valuation	Dec-21	Dec-22	Dec-23e	Dec-24e
EV / Sales (x)	236.8	72.9	11.9	7.1
EV / adj. Sales (x)	236.8	72.9	11.9	7.1
EV / EBITDA (x)	na	na	71.26	17.80
EV / adj. EBITDA (x)	na	na	71.26	17.80
EV / EBIT (x)	na	na	355.4	22.6
EV / adj. EBIT (x)	na	na	355.4	22.6
P / E (x)	na	na	na	38.07
P / adj. E (x)	na	na	na	38.07
P / B (x)	1.90	1.86	1.70	1.63
Earnings yield	(1.4%)	(1.7%)	(1.4%)	2.6%

Source: Arctic Securities Research, Company and Bloomberg

Disclaimer

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Company(ies)

Salmon Evolution ASA

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Company(ies)	General investment banking services 1)	Placement of shares or bonds 2)	IPO 3)	Market maker 4)	Compensation 5)	No investment banking services 6)	No compensation 7)
Salmon Evolution ASA	-	-	-	-	-	X	X

1) Arctic has provided general investment banking services to the Company in the previous twelve months.

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Salmon Evolution ASA	-	-	-	-

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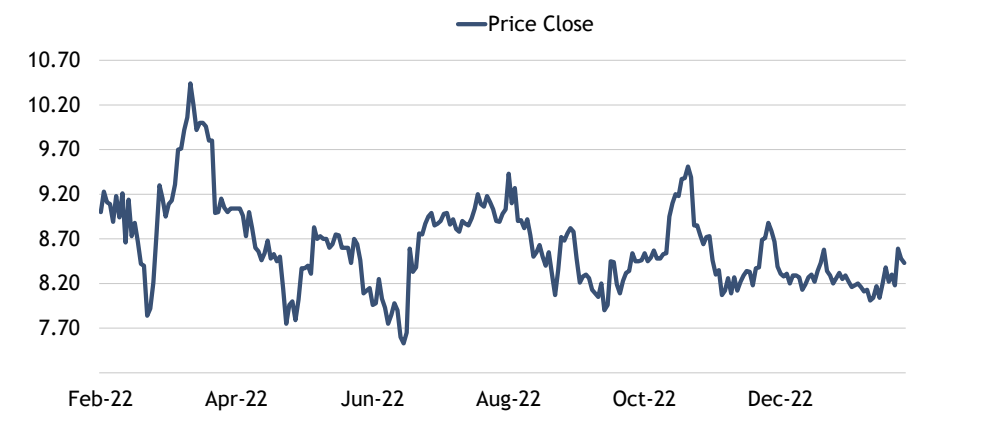
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Salmon Evolution ASA

The part of this report concerning Salmon Evolution ASA has been prepared by Axel Jacobsen (Equity Analyst) and Axel Peter Glede Collett (Equity Backup).

Equity recommendations:



Source: Bloomberg, Arctic Securities Research

Date	Recommendation	Target (NOK)	Price (NOK)
N/A			

Source: Bloomberg, Arctic Securities Research

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