

An underwater photograph of a large number of salmon swimming in a circular net. The fish are silvery with dark spots on their backs. The net is made of a brownish mesh. The water is clear and blue. The lighting is bright, creating a shimmering effect on the fish's scales.

ESG

Environmental
Social
Governance

PART OF OUR ANNUAL REPORT 2021

AKVA
GROUP™

Environmental, Social and Governance (ESG)

Summary

Good environmental, social and governance (ESG) principles are key to AKVA group's global activities. AKVA group must meet the expectations of many stakeholders like investors, governments, customers, employees, or suppliers. As a supplier of technology, services and complete solutions of land based and sea based aquaculture systems, AKVA group plays an important role in the industry's efforts to reduce environmental impacts. We work both to improve our customers' and our own impact on sustainability.

In 2021 AKVA group developed a roadmap for sustainability as a strategic guideline towards 2030, and we defined a new commitment statement. AKVA group allocates substantial financial resources to develop more sustainable technologies for the global aquaculture industry, targeting improved fish welfare as well as solutions to solve environmental issues, such as the challenge of fish escapes and problems with sea lice in the salmon industry. We work closely together with customers, suppliers and research institutions in different projects and initiatives going on in the aquaculture industry to improve sustainability. Innovation examples include:

- Deep farming concepts to separate salmon and lice.
- Pens in recycled material and without polystyrene.
- Energy efficient waterborne feeding technology.
- Hybrid energy solutions at feed barges.
- Land-based RAS technology based on the zero-water exchange concept.
- Recycling of nets and net products

Introduction

This part of the annual report is made in accordance with the Norwegian Accounting Act, Section 3-3c, and is a presentation of AKVA groups environmental, social and governance (ESG) impacts.

It refers to the Company's guidelines, procedures and standards related to ESG, explains how the Company works to translate these guidelines into actions and describes the Company's assessment of the results achieved from working with ESG-factors.

The Company's handling of ESG is based on AKVA group's core values and principles, applicable laws, and regulations, as well as generally accepted principles and practices for good corporate governance.

AKVA group approaches ESG as a continuous process, seeking constant improvement in awareness and processes as well as adoption to new regulations, standards, and understandings.



Our commitment

AKVA group is an important supplier to the aquaculture industry, and we work both to improve our customers and our own impact on sustainability. AKVA group's vision is to "provide technology for a sustainable biology".

AKVA group defines sustainability in line with the Brundtland Commission's 1987 UN report Our Common Future: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015, share 17 Sustainable Development Goals, which are an urgent call for action by all countries. AKVA group works in line with these goals.



In 2021 AKVA group developed a roadmap for sustainability as a strategic guideline towards 2030, and we defined a new commitment statement:

"Sustainability must influence everything we do. It must be part of AKVA group's culture and DNA, it must be part of the solutions and products we sell and buy, and a driving force behind innovation."

AKVA group recognizes that we must meet the expectations of many stakeholders, whether it's customers, investors, governments, employees, or suppliers.

Different markets

AKVA group's largest market is the salmon industry, but we also deliver products and solutions to the seabass and sea-bream market and other species. Aquaculture depends on a clean sea, healthy fish, and a sustainable impact on its surroundings. Fish diseases, fish losses, use of antibiotics, reduce of organic waste from the farms and waste and recycling in general are equally important matters in different markets and countries. Status in the aquaculture industry is in this report mainly described by examples from accessible, official statistics from Norway. Other countries are not that different, although there might be local variations.

Environmental impact

There is a potential to produce more sustainable seafood through aquaculture. The world’s population is growing, and the need for healthy food increases. New technology and solutions for sea based and land based aquaculture opens up new areas for production.

Although the potential to increase sea food production is big, all business activities must relate to and improve its environmental impact. This is a crucial premise, and an ongoing process, where knowledge, technology, and awareness drive development further.

Environmental impact of the global aquaculture industry

Environmental footprint from greenhouse gas emissions (feed, transport, etc.), waste and discharges are all general challenges that the aquaculture industry must solve in the same way as other industries. In addition, aquaculture has some specific environmental challenges related to the escapees of fish and the impact on wild fish, salmon lice, fish health and welfare.

Aquaculture is an effective production of proteins with low climate footprint compared to other food sources (Figure 1). Air freight of products to the markets, like for instance Shanghai, increases carbon footprint significantly and will potentially be reduced by development of supplementary land based aquaculture close to the consumer. In a world with increasing demand for protein in general and especially seafood, combined with decrease in the wild fisheries, responsible aquaculture production can be an important contribution to a more sustainable future, and a healthier diet for a growing population.

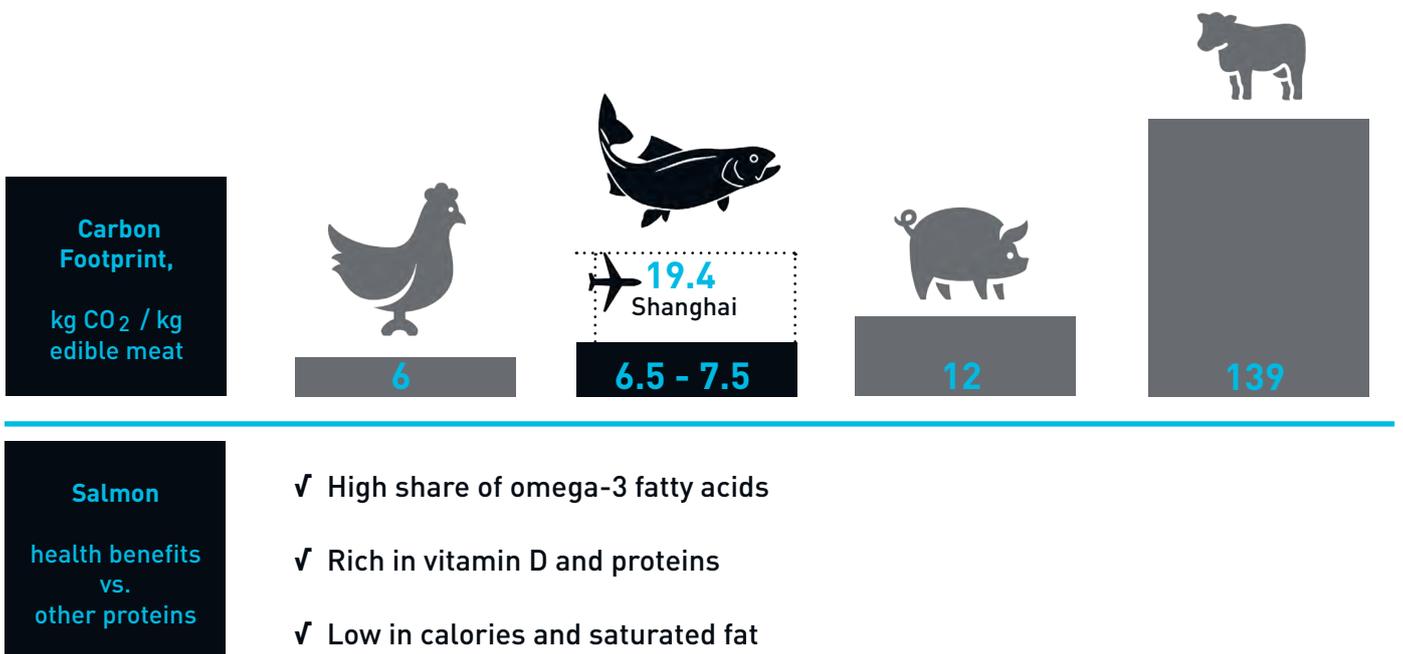


Figure 1 - Salmon versus other protein resources - , carbon footprint and health benefits. Air freight of fresh salmon to a city like Shanghai represents a major part of the carbon footprint. Source SINTEF Ocean

Our environmental impact

AKVA groups works both to improve our customers and our own direct impact on sustainability. In the following we will highlight our impact on sustainability.

Responsible plastic production and recycling systems



Status in the aquaculture industry

Many products in sea based aquaculture are based on different types of plastic components. In Norway, a survey concluded that the fish farming companies have routines and systems for handling the discarded products, but there is a lack of documentation of tons and use of discarded equipment. A material account with the factor method shows that the amount of plastic used in Norwegian aquaculture facilities can be up to 192.000 tons. Waste estimates show that waste from this generated about 15.000 – 29.000 tons of plastic per year. A system for better documentation and traceability is needed, and both SINTEF Ocean and MEPEX concluded that the degree of littering of plastics from aquaculture are low, but there is a potential of higher material recycling.

Directive on the reduction of the impact of certain plastic products on the environment (EU 2019/904) was adopted in 2019 and aquaculture is included. This means establishment of Extended Producer Responsibility for plastic based products from aquaculture. In Norway, AKVA group is working through the Norwegian Seafood Federation (“Sjømat Norge”) with the rest of the industry to establish and develop effective systems for collecting, reuse and recycling of discarded plastic products.

Another important aspect is how micro plastic from different equipment can affect life at sea as for example discharges of microplastics from feed pipes. Research projects like TrackPlast and MICRORED investigates the problem and it is too early to draw a conclusion. But we do know that waterborne feeding is gentler to the feed pipes than airborne systems.

-
1. SINTEF Open: Avfallshåndtering fra sjøbasert havbruk (unit.no)
 2. Mepex rap (miljodirektoratet.no)
 3. Reduction of Microplastic Emission through System optimisation of Feed Pellet Conveying Pipelines (MICRORED) (fhf.no)

AKVA group 's contribution in 2021

Plastic is a main component in many products from AKVA group, and the most important products are listed in Table 1. Type of plastic from AKVA group can be divided in to three main groups; High-density polyethylene (HDPE) for instance used in pens, polyethylene (PE) for instance used in tanks and nylon (Polyamide) used in nets. In addition, the fiber Dyneema made from Ultra High Molecular weight Polyethylene (UHMwPE) is also used in net constructions. In sea based aquaculture our main plastic based product groups are pens, nets and feeding pipes. In land based aquaculture tanks and tank systems, pipes and pipe parts included are the most important products from AKVA group.

Segment	Products
Sea Based	<ul style="list-style-type: none"> ■ Plastic pen including bottom ring ■ Optional equipment, such as hamster wheels, bird netting rods etc. ■ Feeding pipes ■ Pipes and pipe parts for other markets ■ Boats ■ Nylon nets
Land Based	<ul style="list-style-type: none"> ■ Dyneema nets ■ Tanks

Table 1: Products from AKVA group with plastic as a main component in 2021

In 2021 AKVA group (Helgeland Plast AS) used about 3500 tons of HDPE for production of pens and feed pipes. In net production, AKVA group (Egersund Net) used about 950 tons of nylon (Polyamide) and 36 tons of UHMwPE.

Figure 2 illustrates the recycling system for pens and the different parties involved. Recycling systems are in progress and will be established in beginning of 2022. Boats produced by AKVA group is mainly based on HDPE and they are fully recyclable. Production waste from the boat production is sorted and delivered to approved companies for recycling.

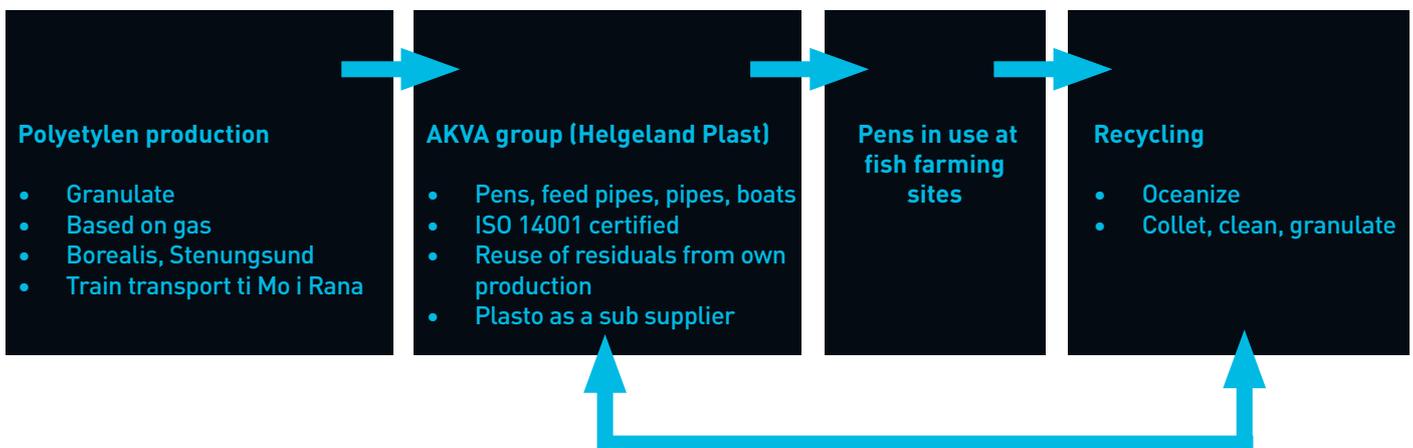


Figure 2 - Recycling system for pens

AKVA group (Egersund Net) has a well-established system through Nofir for recycling of nets and net products based on nylon. In 2021 1,256 tons of nets was regenerated to 750 tons of nylon filaments reused in new products (Figure 3). In addition, 969 tons of discarded nets was sent to energy recovery.



Figure 3 - Recycling system for nets and net products

There is currently no system in place making it possible for AKVA group to track and trace the products when they are discarded by the fish farmer. In 2021 AKVA group started a work with screening different tracking and documentation systems and working together with other parties in the value chain to establish systems for documentation and traceability. In a new project AKVA group wants to explore the possibility for using recycled plastic from discarded pens in new pens. We also removed polystyrene from the pens and produced walkways based on recycled material (see page 16 for more details).

AKVA group participated in RnD projects like TrackPlast and MICRORED bringing new knowledge forward about microplastic from feeding pipes and for establishing methods for measuring microplastic emissions.

Handling of copper-based fouling from nets at the service stations

AKVA group (Egersund Net) has in total 7 service stations along the Norwegian coastline to receive, handle and carry out washing of nets, under a strict bio waste and sludge management. This also includes methods for recycling and dismantling of discarded equipment.

In 2021 we delivered 535 tons of waste to Germany for regeneration of copper, and this resulted in 44 tons of pure copper going into new products. 655 tons of organic waste were delivered to incineration / energy recovery giving approx. 1.000.000kWh equivalent 50 households' power consumption a year. Copper-containing waste and net bags with copper residues are considered hazardous waste and are handled via our certified recipients. Discharge water from the service stations is rinsed and treated according to strict regulations.

In 2021, AKVA group's Egersund Net initiated a project to increase copper recycling and reduce the transport needs of waste by investing in a new process of efficient low temperature drying of waste. The results are promising and investments in more systems will be considered along the coast in 2022.

GreenHouse Gas emission (GHG)



AKVA group's contribution to reduce GHG is concentrated along areas we can substantially influence; construction of products with high energy efficiency like hybrid solutions in barges, reduction of raw material consumption in own productions, reduction of transport and travelling in general and design of products with a long service life easily recycled.

We have laid out a plan to prepare a GHG-report on a group level, starting with 2022 numbers. AKVA group is also involved in defining Product Category Rules (PCR) initiated by The Norwegian EPD Foundation and the Norwegian Seafood Federation for climate gas reporting on different technological products in aquaculture.

Some examples from activities in 2021:

- We established a project to reduce the weight of waste from three of our seven net repairing stations by 40% by 2022. One service station has already implemented this in 2021. Results are less CO2 emission from freight, and the cost of waste management itself is greatly reduced.
- When possible, AKVA group preferably uses local suppliers. In Norway our brackets and walkways are produced by Plasto AS in Åndalsnes. This means that the products have the lowest possible CO2 footprint related to transport between manufacturer and customer.
- Further development of hybrid solutions in feed barges (see page 14 for details).

Escape prevention



Status in the aquaculture industry

Fish escape from both land based and sea based aquaculture production. The reasons are multifaceted; Escapees during operations like for instance lice treatment and general handling of nets, escapees due to technical faults, wear and tear from weights, collisions with boats etc. Escaped salmon can possibly swim up a river to spawn and influence wild salmon genetically.

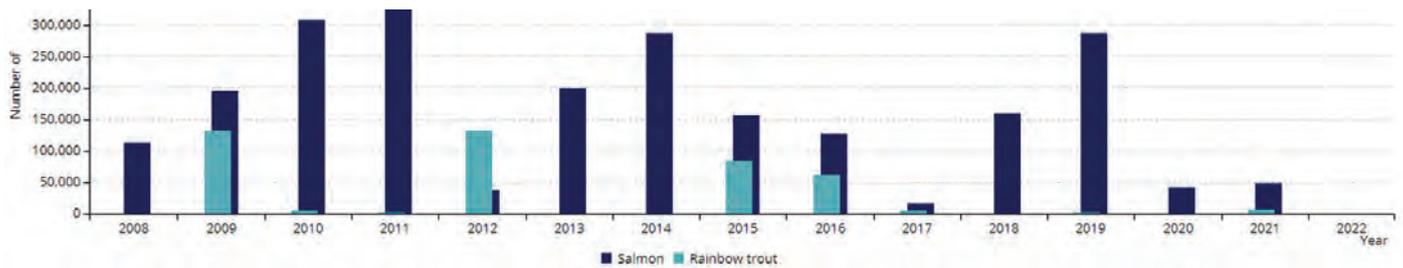


Figure 4 Confirmed number of escaped farmed fish in Norway 2008-2021. Source: www.barntswatch.no.

The most important measure to prevent escape is the requirements set for the design of safe fish farms and operations in NS 9415: 2021 and the NYTEK regulations. In land based aquaculture NS 9416:2013 shall prevent escapes. In Norway, these standards have been the most important tools to reduce escapees (Figure 4). In other salmon-producing countries, NS 9415:2021 is a voluntary standard, but it is often referred to when AKVA group sell pens to the rest of the world. Predators like seals, otters, dog fish sharks and others are a problem in many aquaculture areas. They make holes in the nets and the fish escapes. Predators affects fish farming in many other ways too; they consume the fish and the fish feed, they may transmit parasites and other infections, scare the fish, cause physical injury etc.

AKVA group 's contribution in 2021

The most important contribution is to design and construct safe and solid products according to NS9415: 2021 and NS 9416:2013. Only accredited inspection bodies can issue capability certificates according to NS9415:2021 and in 2021 AKVA group was qualified as a accredited inspection body. In 2020/2021 the NS 9415:2009 version was revised and AKVA group participated in this extensive work together with fish farming companies and other suppliers. The new standard is released and significantly improved from last version.

To address the problems with predators AKVA group offer EcoNets as a safe and solid predator net.

-
6. NS 9415:2021. Floating aquaculture farms — Site survey, design, execution and use
 7. NS 9416:2013. Landbased aquaculture farms for fish — Requirements for risk analyses, design, execution, operation, user handbook and product data sheet
 8. Technical requirements for fish farming installations (FOR-2011-08-16-849)

Fish health



Status in the aquaculture industry

Fish health, fish welfare and fish mortality are premises for an optimal performance and production in fish farming. Control of diseases caused by either virus, bacteria or parasites is a key element and preventive health care is very important. In Norway (Figure 5) and many other salmon producing countries the aquaculture industry has succeeded in reducing the use of antibiotics to a minimum, but still needs pharmaceuticals to combat salmon lice.

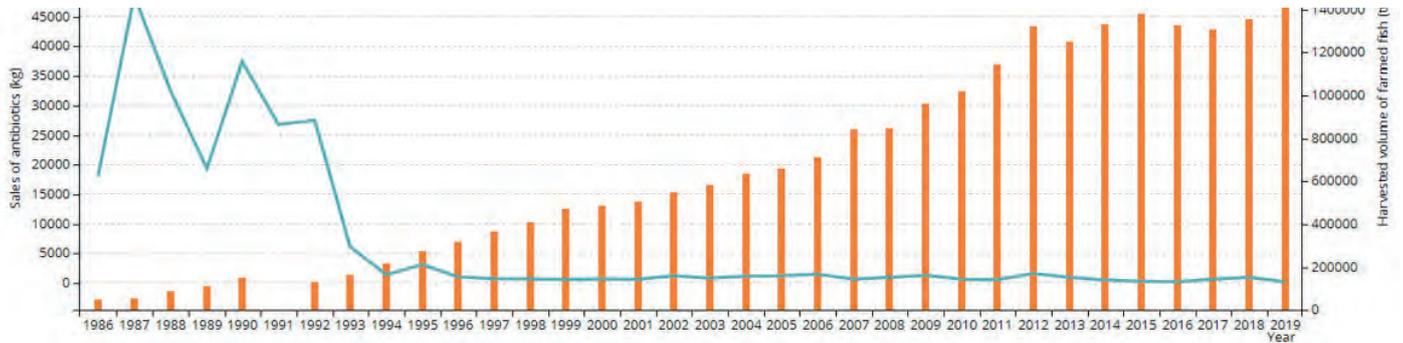


Figure 5 Sales of antibiotics and harvested volume of farmed fish in Norway 1986-2019. Source: www.barntswatch.no.

Salmon lice is a parasite that lives naturally in the sea. In aquaculture production it is essential to control the parasite to ensure no negative impact on wild salmonids and negative impact on the farmed salmon itself and increased cost for the fish farmer. Due to genetic resistance and negative environmental impact of medicine residuals, mechanical treatment has partly substituted medical treatment. Mechanical treatments can influence fish welfare and production negatively, and the fish farmers look for more preventive actions. In 2021 mechanical treatments declined slightly in the Norwegian fish farming industry.

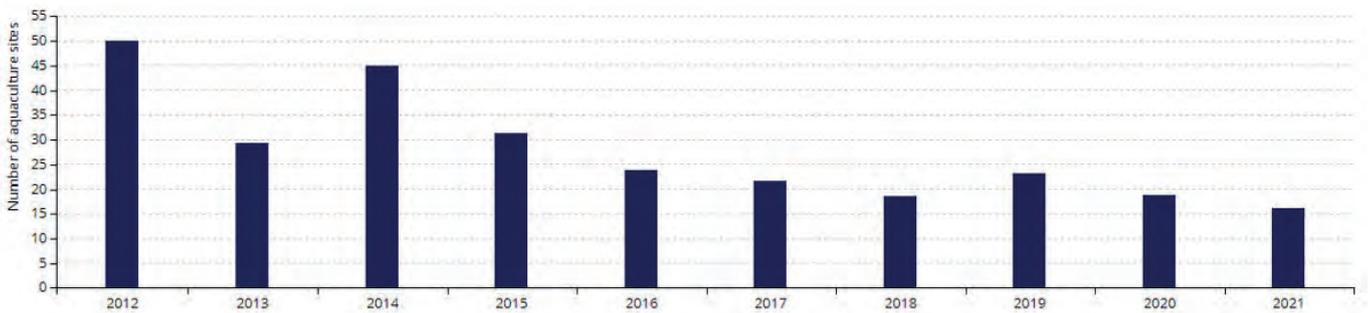


Figure 6 Aquaculture sites in Norway above threshold (In general; 0,5 adult female lice per fish per site) in average per week

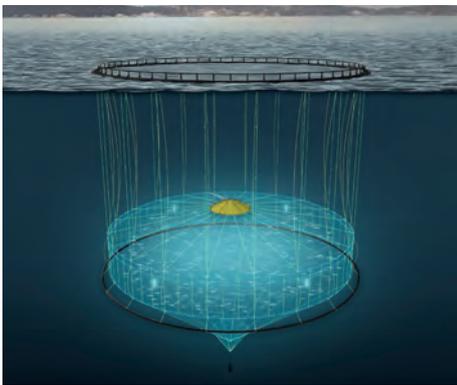
AKVA group 's contribution in 2021

Digital tools for measuring, data processing, reporting and better decision-making are important elements in the new digital structure, and in 2021 AKVA group has invested heavily in the digital part of the organization.

We believe in preventive measures to control the lice situation at the sites. In recent years, and in 2021 particularly, AKVA group has developed different solutions for deep farming like Atlantis Subsea Farming, Nautilus and Tubenet™ (Figure 7). The principle is the same for all solutions; avoiding the Salmon (host) and salmon lice (parasite) to meet. The Institute of Marine Research (IMR) have proven that salmon lice thrive best in the upper water layers (10-15 meters) , and in the deep farming concepts the fish is held in the deep. The results from 2021 is very promising and is described more in details in page 136.

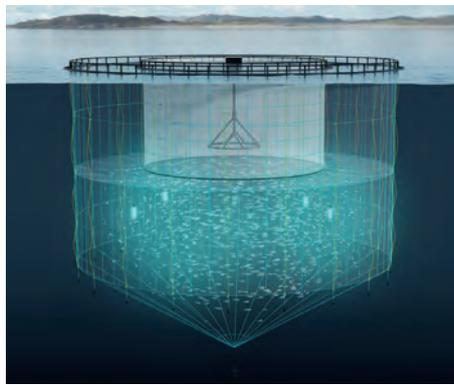
Subsea farming

Nautilus



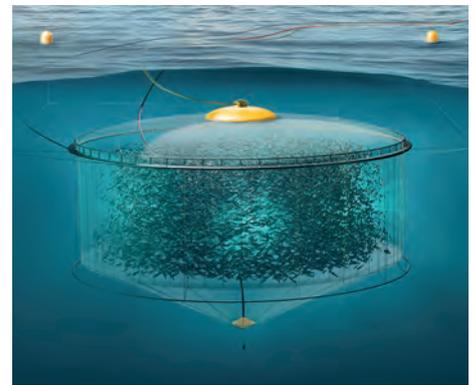
1. Access to air in the deep ordinary sites

Tubenet™



2. Access to air through a smaller surface

Atlantis



3. Access to air in the deep exposed sites

Figure 7 Deep farming concepts

In 2021 AKVA group started to develop a total fish handling system for land based aquaculture of large fish, really taking fish welfare and fish behavior into account. Working closely together with our customers is very important to understand the biology behind and the need of the fish.

9. Oppedal et al. Snorkel technology to reduce sea lice infestations: efficacy depends on salinity at the farm site, but snorkels have minimal effects on salmon production and welfare. *Aquaculture Environment Interactions* Vol. 11: 445-457, 2019.

Waste and circular economy



Status in the aquaculture industry

Waste from the aquaculture industry and how this is handled in a circular economy way of thinking is a vast area. For AKVA group it is sensible to focus on the thematic areas we might affect:

- Emissions of organic compounds from land based and sea based facilities
- Handling of copper-based fouling from nets
- Macro- and microplastic

For sea based aquaculture, the effect from emissions of organic compounds (feces from the fish and uneaten fodder) and nutrient salts are monitored. The impact is usually the greatest under the facilities and decreases as you get farther away from the plant itself. Sea currents, depth and sink rate of fish fodder influence how much the emissions spread in an area. To monitor this, conducting environmental surveys of the impact on the seabed from the plants in the sea is a legal obligation in Norway and other salmon producing countries. The latest development of semi closed aquaculture systems at sea have opened the opportunities to collect emissions for further treatment and utilization. The sludge is rich on Phosphorus, Nitrogen and Carbon and is potentially a source for fertilizers and energy recovery.

In land based systems the setup of the plant is essential to how much emissions of organic compounds the plant produce. Today sludge from land based facilities is collected, treated (remove water etc.) and delivered to energy recovery like for instance biogas and as input in fertilizers. The challenge is transport costs and establishment of an effective and circular value chain for the sludge itself.

Biofouling on aquaculture nets is a challenge for the aquaculture industry. Biofouling (blue mussels, hydroids, algae's etc.) adds weight to nets and equipment and it changes hydrodynamic properties of fish cage systems. Approaches to battle biofouling include prevention in form of anti-fouling coatings, and removal by underwater or land-based net cleaning, net drying or changing or biological controls. Copper based coating has been used for many years to prevent biofouling and copper must be handled and used properly to minimize release of copper to the environment. The industry, AKVA group included, works to replace copper-based fouling, but this is not an easy task. So far, the substitutes are not that effective, and they can create adverse effects. Waste of copper-based fouling at the net service station is taken care of and pure copper is regenerated. Organic waste with traces of copper is going to energy recovery.

At sea it is very important to treat the nets right (Washing regime etc.) to minimize flakes of copper coating to be released from the nets and sink to the bottom. MOM B surveys control the copper content under the site regularly.

AKVA group's contribution in 2021

In land based plants, AKVA group's main contribution is to reduce the emissions with optimizing the Zero Water exchange solution. An optimized water treatment system, feeding- and tank (inlet, outlet, etc.) system the emissions is reduced. In the plants producing fish for slaughter close to the customer this is of very important because the amount of sludge might potentially be of several thousand tons a year. AKVA group has established a close cooperation with sub suppliers to handle the sludge from land based plants.

In the sea based area AKVA group started in 2021 to develop sludge collecting systems at sea, and this project will continue in 2022.

Improving our customers environmental impact through innovation

AKVA group allocates substantial financial resources to develop more sustainable technologies for the global aquaculture industry, targeting improved fish welfare as well as solutions to solve environmental issues, such as the challenge of fish escapes and problems with sea lice in the salmon industry. We work closely together with customers, suppliers and research institutions in different projects and initiatives going on in the aquaculture industry.

Sea based technology innovation

Deep farming concepts

For several years AKVA group has been developing deep farming technology. The principle is to separate salmon and lice by lowering the biomass below the upper meters in the sea where the salmon lice are located. Deep farming can also open new areas for aquaculture. In 2021, AKVA group succeeded in developing three different concepts to a new level: Tubenet™, Atlantis and Nautilus (Figure 7). The scientific results from the Atlantis Subsea Farming (Atlantis) project showed that the salmon lice challenges can be significantly reduced.

With the results from 2021, we can now conclude that deep farming might be an answer to several of the industry's sustainability challenges and that the results are promising in terms of maintaining good fish welfare, reduction of the lice problem and offering the fish a good production environment.

The Atlantis project completed the third generation of fish production in submersible cages according to the original project plan in 2021. Atlantis submitted a final report from the project in the late autumn, as well as an application to convert the development permit granted in 2018. Atlantis is awaiting feedback on the applicant from the Directorate of Fisheries. In 2021 AKVA group made several improvements to the Tubenet™ and had a success in the market with the concept.

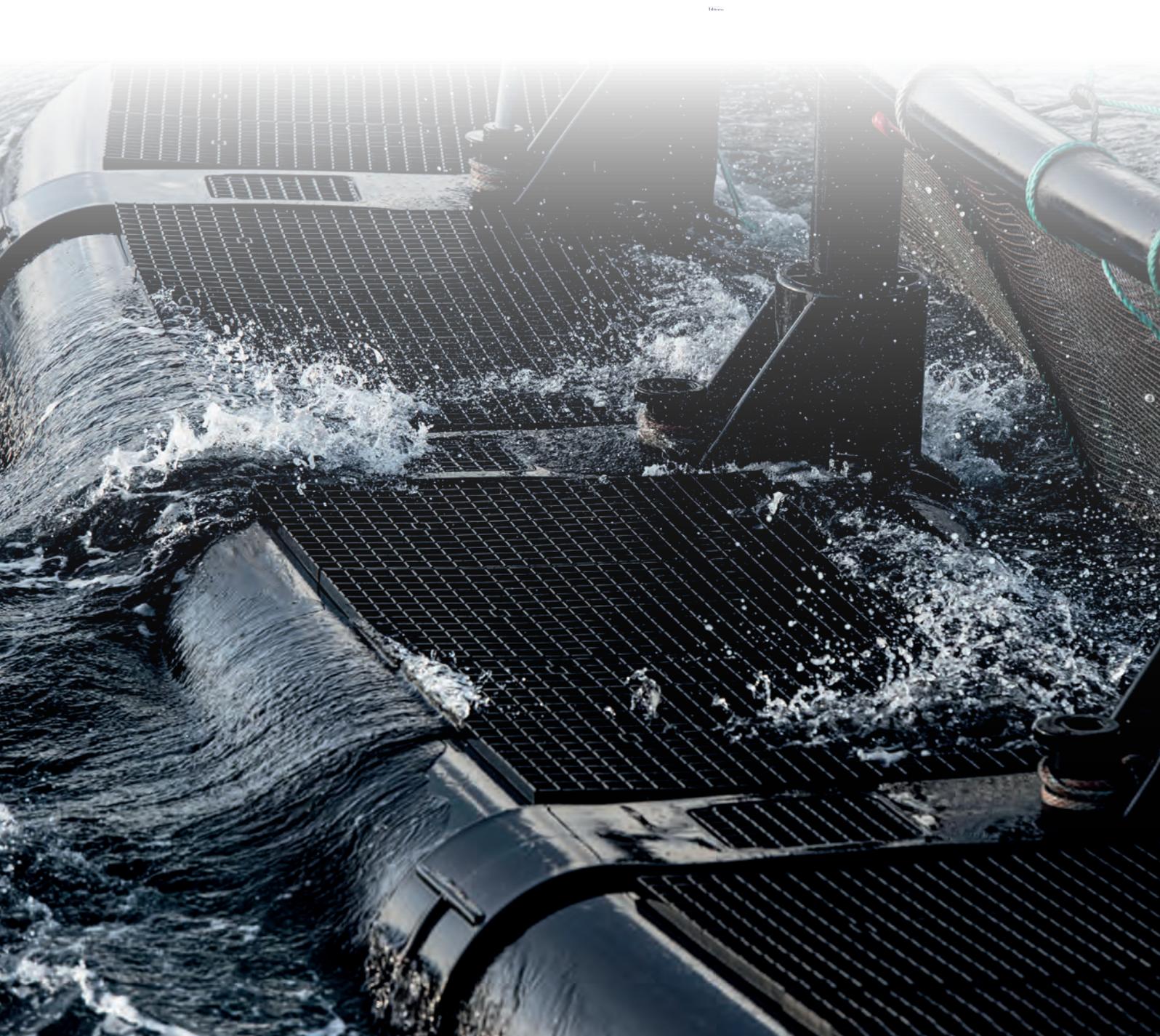
Nautilus is a spin-off of Atlantis, a solution that is easily adapted to ordinary sites. It is developed on the same principles as Atlantis and Tubenet™. Nautilus was introduced to the market late in 2021.

Pens in recycled material and without polystyrene

In 2021 AKVA group removed polystyrene in the fabrication of all plastic cage PE piping. AKVA group are working extensively to reduce plastic waste, cuts, spill and drift-off during the assembly processes and introduced new polystyrene-free pens to the market.

In 2021, AKVA group and Plasto developed walkways based on recycled material from discarded cages. Based on the results from the research project Megamould, the partners developed a solution where the recycled plastic maintains good enough quality.

At the end of 2021, AKVA group, Plasto and Oceanize received grants from the Norwegian Retailer´s Environment Fund for a project taking development of pens entirely based on recycled material to a new level. The main goal is to establish national value chains reducing transport and CO2 emissions. AKVA group produces the pens in Mo i Rana, Oceanize collects pens along the entire coast and has its granulation factory in Rørvik, and Plasto produces parts for the pens in Åndalsnes. The basis for an efficient and national value chain is in place.



Waterborne feeding technology

Waterborne feeding systems is further developed in 2021, and AKVA group strongly believe this is a feeding technology for the future. Waterborne feeding is gentler on both the pellets and the feeding pipe, and noise and micro-plastic discharge are reduced. The energy consumption by replacing air with water is also reduced (Figure 8). Combined with Flexible Feeding – a system in the barge that enables you to distribute feed from all silos to all pens on the site – energy is saved, and the feed handled with care. Less brakeage's minimize organic waste underneath the cages.

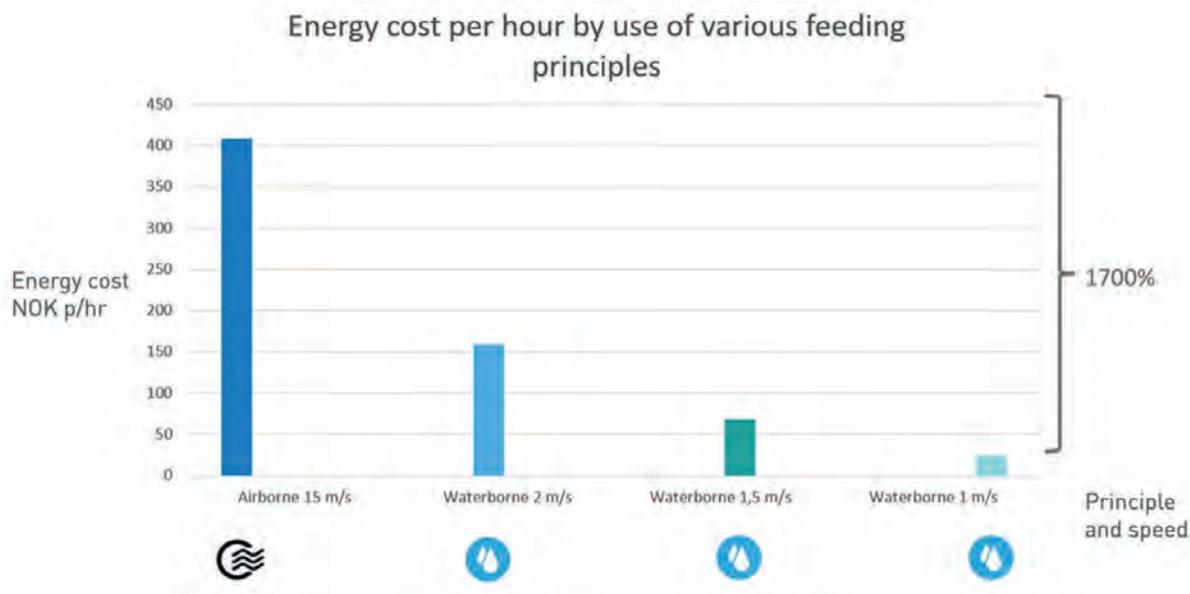


Figure 8 - Energy cost per hour by use of various feeding principles. Source: AKVA group

Microplastic from airborne feeding pipes is a problem, and AKVA group participate in MICRORED - a joint industry and science-based project with the main goal of optimizing air-based feeding systems to reduce emissions of microplastics from feed hoses.

Hybrid energy solutions at feed barges

Traditionally diesel is the main energy supply at barges in the aquaculture industry. This is changing rapidly and AKVA group has for several years developed hybrid energy solutions. In 2021, the hybrid systems were further developed and the energy consumption on a hybrid fleet combined with waterborne feeding is now potentially reduced by 90 % compared to a diesel-based barge. Combination of a hybrid system and airborne feeding reduce the energy consumption by approximately 60 %. The CO₂ emission is reduced by 1.3 ton per 24 hours for a hybrid/airborne system and 2.1 ton per 24 hour for a hybrid/waterborne barge.



Figure 9 - Feed barge from AKVA group

Land based technology innovation

AKVA group is involved in several large land based projects all over the world, several of them producing fish up to slaughtering weight. Processes, technology, and knowledge are developed in the projects and AKVA group was in 2021 working with several R&D projects in order to make more efficient and sustainable facilities.

By having sustainability as a core focus and driving force in land based, we want to optimize production to secure fish health and welfare. We also focus on creating standards for our suppliers to make sure that our partners have sustainability as a core value of their business. Our value of environmental sustainability in land based aquaculture production will increase and with the zero water exchange system, AKVA group is well-positioned.

Continuous innovation is needed to solve challenges, i.e reduce energy consumption, reduce sludge through optimal feeding and utilize sludge residues. With the new land based R&D initiatives, AKVA group is now well-positioned to solve these challenges.



Zero-water exchange concept (ZWC)

Water treatment systems from AKVA group are based on Recirculation Aquaculture Systems (RAS) with a zero-water exchange concept (Figure 10), recycling 99,9% of the facilities' water and discharging less nutrients. We have now delivered several facilities (Svaberget, Osan, Nordheim etc.), using the ZWC technology. The ZWC makes it possible to make even less impact on the environment. The concept makes the choice for the location of facilities even more flexible. Our RAS concept has been further developed and to a greater extent adapted to the production of large fish.

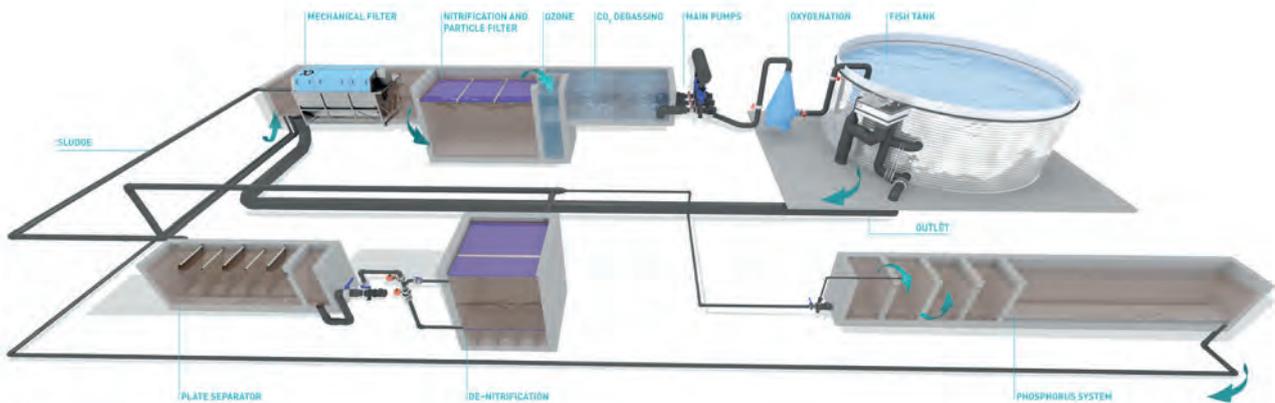


Figure 10 - Zero Water Exchange concept

Grow-out fish in RAS facility in China

In 2022 we are building a RAS facility in China, producing grow-out fish. 2021 was an important year when it came to planning the facility. Closeness to the consumer will contribute to lowering the CO₂ footprint of the fish product by avoiding transportation by airplane.

Establishing Production Advisory Service (PAS)

As a support function for operation and production, we have in 2021, established PAS (Production Advisory Service), which is a team composed of biologists with expertise within biological production in RAS systems. The team also provides support for innovation processes and solutions to optimize the facilities of our customers to prevent adverse events that could result in acute death of fish.

New feeding system

We have focused on developing a new feeding system, providing increased utilization of the feed, giving the possibility for less breakage, and crushing on the pellets. An optimized feeding system will also be a contributor for reducing the slam production. The reduced production of slam and more optimized feed distribution may contribute to increase the welfare of the fish. Having a better overview of the feeding system makes it easier to quantify the efficiency of the system, giving the possibility to measure sustainability.

Other innovation areas

Two of several ongoing initiatives to make our delivery to the market more sustainable is to find ways to recycle bio media from the facilities and optimize the CO₂-degasser with the goal of reducing the energy use.

Digital innovation

In the digital area 2021 has been the year of re-focusing, reorganization and re-manage our digital offerings to our customers globally. This means that a new organization, management team and strategy has been established during first half year. From mid Q4 we have started the execution of the strategy and delivering of our business plan that spans across 2027. AKVA group Digital (Digital) enables “Technology for sustainable biology” by supporting Precision Fish Farming with leading, open, flexible, and modular digital products and services.

Digital will accelerate our customers’ ambitions through Customer Excellence in our products & services, always available with relevant and actionable information. The development and deliveries will be customer-centric, and ROI based solutions accelerating our land- and sea-based customers increased productivity, yield, and environmental sustainability, securing price performance.

For the next period Digital has huge ambitions to be a key player in the digital ecosystem of Aquaculture creating supporting concepts and solutions for Precision Fish Farming to improve animal health and welfare while increasing the productivity, yield and environmental sustainability in commercial intensive aquaculture.

Further development and refinement of Digitals product families will through execution of roadmaps support on of more of UN sustainability goals. This also include supporting sustainable operational excellence for our customers. Future new digital products will have the UN sustainability goals as guidance for development of roadmaps and execution, both internally for AKVA group as well as supporting our customers sustainability strategy and goals. Through this approach AKVA group are confident to decrease environmental footprint and increase sustainability focus and reporting both for AKVA group and our customers.



Social



AKVA group is not only a major supplier to the aquaculture industry, we are also a major employer, and we influence many local communities around the world. AKVA group wants to play a positive role both in terms of the working environment, safe jobs, gender equality and in global and local influence.

AKVA group also contributes to improvement processes within the total innovation system in the aquaculture industry in extensive cooperation with other companies, research institutions, seafood federations, trade unions and clusters.

Safe jobs



All employees in AKVA group must focus on safety in their work, and we expect our suppliers to do the same. There shall be a risk-based approach when planning and preparing for all kinds of field services and workshop activities. Employees are expected to use risk evaluation matrices (i.e., Safe Job Analysis) in the preparation and evaluation of their work. Breach of this practice shall be reported in the Corporate Quality Management System, resulting in corrective measures to prevent reoccurrence and to ensure safe operations.

Any work-related injury or accident (Lost Time Injuries) will be reported monthly to the Board of Directors. Personal injury incidents will also be reported and dealt with in AKVA group's Quality Management System (AQS). Following a root cause analysis, corrective and preventive actions will be implemented within 14 days of the incident.

The Group registered four (two in 2020) LTI incidents causing sick leave exceeding the day the incident occurred during 2021. According to AKVA group's compliance with and continuous improvement work in conjunction with the Norwegian Working Environment Act, personnel and departments are frequently subject to working environment surveys, safety inspections and reviews.

Other initiatives are internal and external communication and knowledge sharing. Individual feedback and engagement are paramount to these processes and the key input to AKVA group's dedication to safe working conditions in all operations. In accordance with regulations AKVA group has an anonymous channel for whistle blowing, which is made available through the company's web pages.

Equal opportunities and discrimination

AKVA group is committed to create an inclusive work environment and appreciates and recognizes that all people are unique and valuable and should be respected for their individual abilities. AKVA group does not accept any form of harassment or discrimination based on gender, religion, national or ethnic origin, cultural or social background, disability, sexual orientation, marital status, age, or political opinion.

AKVA group shall provide equal employment opportunities and treat all employees fairly. AKVA group employees and business units shall only use merit, qualifications, and other professional criteria as basis for employee-related decisions, regarding for instance recruitment, training, compensation, and promotion. AKVA group encourages initiatives to promote a diverse organization based on the principle of equal opportunity.

The policy for equal opportunities is stated in the Group's Code of Conduct. It is followed up as part of the daily management in the different entities of the company.

AKVA group currently has subsidiaries in 11 countries and with a diversified work force in terms of gender, religion, national or ethnic origin, cultural background, social group, disability, sexual orientation, marital status, age, and political opinion. At the main office we have 13 nationalities employed.

Employees in AKVA group are free to join trade unions of their choice. Management in all companies in the company shall facilitate a good working relationship with staff and trade unions.

Based on the knowledge of the Management and the Board of Directors in AKVA group, there have been no violation of the company's procedures on equal opportunities and discrimination in 2021.

AKVA group has no reports or observations related to harassment or sexual harassment.

Gender Equality



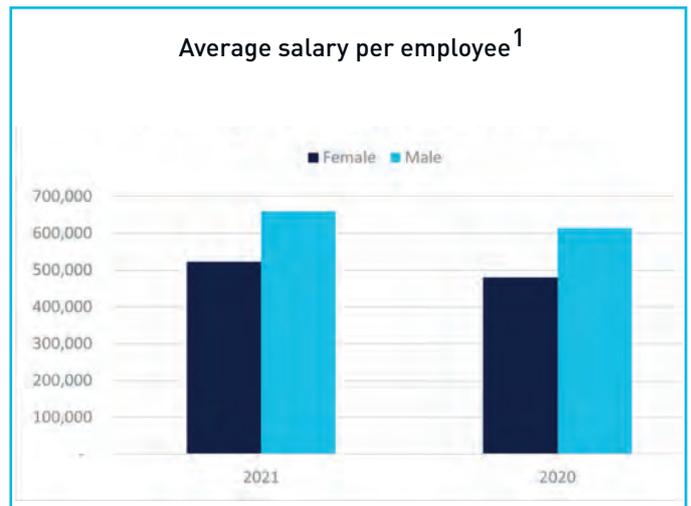
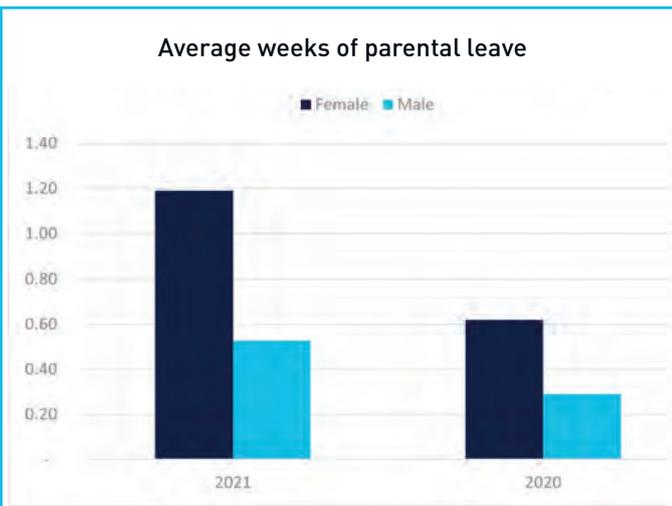
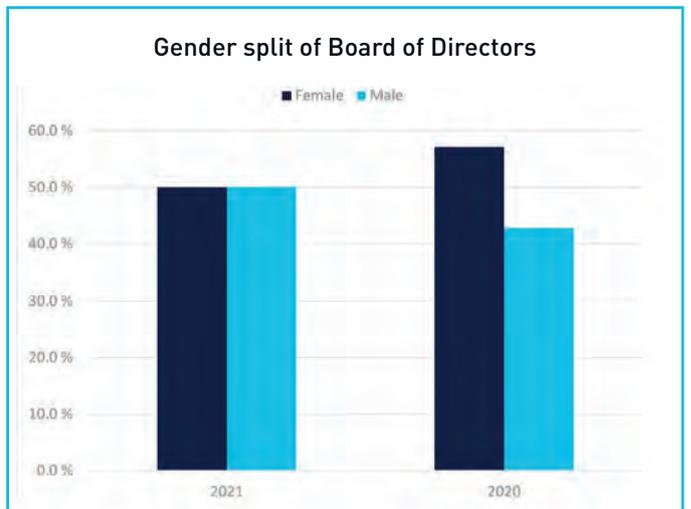
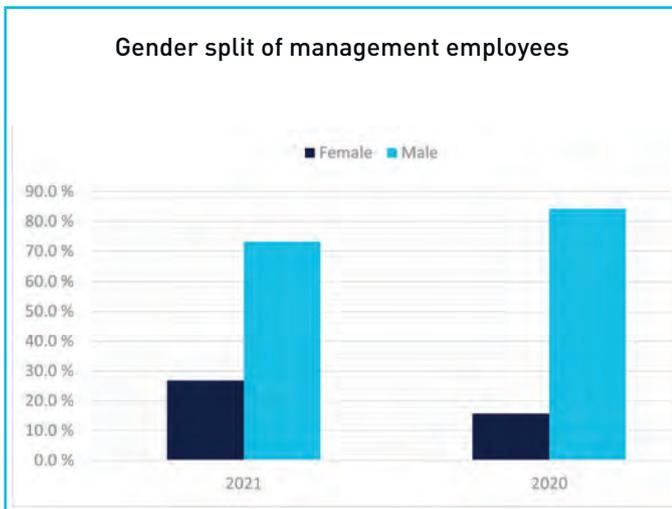
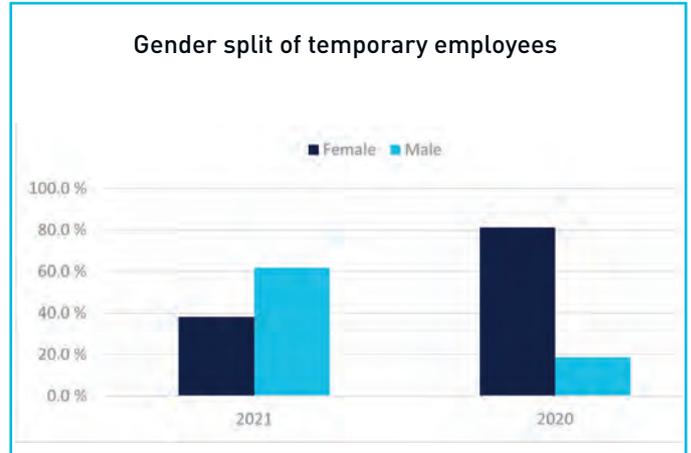
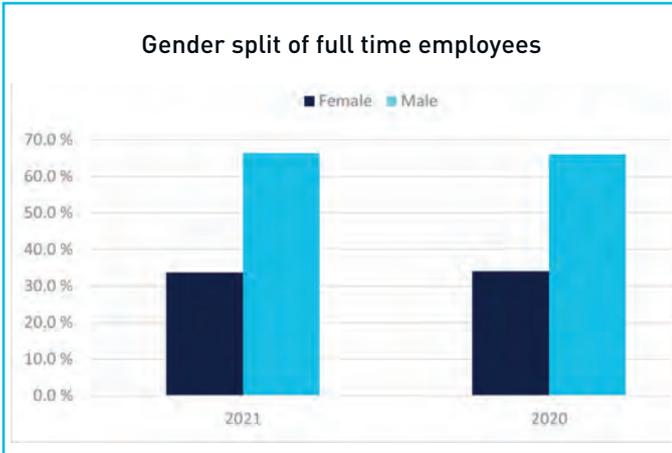
Gender equality is about a fair distribution of power, influence, and resources. It has been proven many times that political, economic, and social equality between the sexes contributes to a positive development at all levels. Gender equality and women's rights is a recurring theme in the sustainability goals, and it is essential to be able to achieve all the UN's sustainability goals by 2030.

In the total aquaculture industry (suppliers and fish farmers), there are very few women in leading positions. The reasons are complex and based on historical and cultural aspects combined with lack of focus.

In 2021, AKVA group had 34 % women employed. FAO calculates the ratio of females to males in the global aquaculture industry to around 10-22 % , dependent on which part of the world we talk about.

AKVA group

A quantitative review of gender equality has been carried out in 2021, refer summary of results below.



¹ We have used total salary costs (including pension, social security tax, bonus etc.) for the financial years to calculate the average salary per employee.

This survey showed that male employees in the company on average have a higher salary than female employees. One of the reasons is that there is a predominance of male employees in management positions in the company. For non-managerial positions (such as project personnel and administrative personnel), no significant differences in salary between men and women were revealed. In 2021, AKVA group ASA (the mother company), has been able to increase the proportion of females in leading positions from 15% to 23%.

AKVA group acknowledges that the management is male dominated. This main reason is the imbalance of applicants. Of the management positions advertised in 2021, there were on average 82% male applicants and 18% female applicants. Our gender equality work is stated in the company's various strategies, tools, and guidelines, and is described in detail in the Code of Conduct. Further, gender equality is included in the annual strategy meetings held within Group Management. In our action plan for 2021 we have put a strong focus on prioritizing women in recruiting processes. We have monitored equal pay and working conditions and focused on motivating females to take on senior managers positions. In this process the Company has also offered individual practical and financial support in some cases, to support females to take on leading roles, with the opportunity to combine work and family life.

AKVA group has its own HR function, which has the overall responsibility for maintaining and improving the procedures around gender equality. The HR function is also responsible for ensuring that all employees are familiar with the regulations and that they are complied with in practice. The latter is secured by AKVA group's onboarding process, which requires that all new employees must familiarize themselves with the current regulations.

For the coming year, we want to strengthen the work that was started in 2020/2021. Measures have been implemented to formalize procedures and to ensure adequate follow-up on gender equality at a high enough level in the company. As part of the strategy work for the period up to and including 2023, a goal has been stated to increase the proportion of women in leading positions in the group.

AKVA group ASA

In addition to the results presented for the group above, AKVA group ASA has performed a quantitative analysis on gender equality on different levels within the organization:

Gender split on different levels					Remuneration split on different levels			
Description of level	Female	Male	Share female	Total	Average remuneration females in NOK	Average remuneration males in NOK	Difference in remuneration in %	Difference in remuneration in NOK
Total	42	141	23%	183	753 046	835 839	-10%	-82 793
Group Management	-	5	0%	5	N/A	2 058 233	N/A	N/A
Director/VP	2	13	13%	15	1 100 000	1 253 342	-12%	-153 342
Project Manager/Middle Manager	9	21	30%	30	900 239	937 583	-4%	-37 344
Professional/Technicians	25	91	22%	116	710 053	712 581	0%	-2 528
Administration/Production	6	11	35%	17	581 411	533 794	9%	47 617

The results from this analysis support the conclusions reached on group level, that on average male have a higher salary than female employees. AKVA group ASA works towards having a complete gender equality in terms of conditions for the same work performed.

Training and competence development



Onboarding, personal training, and competence mapping is controlled and maintained in a Human Resource Management system (HRM). All new employees in AKVA group with an AKVA group email account shall conduct mandatory e-learning modules as part of the onboarding process, covering for instance AKVA group's Code of Conduct and IT security. Learning and Development was one of four strategic priorities for 2021.

The objective for 2021, which also continues into 2022, is to establish a structured, proactive, and common "AKVA way" of working with competence development and performance culture.

Introduction to the Aquaculture Industry and AKVA group

AKVA group is growing, and most of our new hires are coming from other businesses. To support the transition into Aquaculture Industry we have partnered up with an external and local online training provider, Blue Planet Academy. Examples of courses provided are Introduction to Aquaculture, Biological challenges, Environment - Salmon and Hygiene and biosecurity. More than 100 courses have been completed during 2021.

The onboarding process of new hires have also been improved during 2021, to ensure a better quality in the onboarding of new hires. The process improvement also includes an employee engagement survey, to capture how satisfied our new hires are with the recruitment and onboarding they have experienced.

Project Management Training

AKVA group is primarily a project organization, and Project Management skills are fundamental to ensure quality, safety, and efficiency in what we do. During Q4 in 2020 and 2021 more than 330 employees have completed a 2-hour online course on the Project Management Model in AKVA group. More than 200 of these employees, have also completed a more in-depth Project Management Certification consisting of 20 hours online learning and a 1 days' workshop. Feedback has been highly positive from the participants and contributed to better project execution in the business.

Employee Appraisal Process

A new Employee Appraisal Process has been rolled out globally with the purpose to:

1. Clarify expectations and evaluate how expectations are met.
2. Prioritize and plan individual objectives, that support business objectives.
3. Plan for employee development.

The Manager-Employee relation is central in this process, and all managers have been provided training on the new process prior to roll-out.

Main conversation content



Systematic competence development for "yellow collars"

During 2021 we have established competence metrics' (GAP Analysis) to support a systematic development and that required training is required for some of our practical roles. This is related to HSE training, required certificates and includes mapping of on-the-job skills. Approximately 100 employees have been assigned to a competence metric during this year.

Value creation and contribution to the society

In general, the suppliers like AKVA group play a more and more important role in the seafood industry in terms of value creation (EBITDA + labor costs) and employment (man year). In Norway suppliers represented in 2020 approximately 14 300 employees, and the value creation from the suppliers was about 17 billion NOK. In every aquaculture producing countries the employment is spread along the coastline – very often in places where other job possibilities are limited. Local communities are in some places totally dependent on the aquaculture industry, suppliers like AKVA group included. Taxes and fees from both the fish farming companies and the suppliers are important contribution to national accounts in different countries. In Norway, the fish farming companies are paying an extra production fee through "Havbruksfondet" and in 2021 about 1 billion NOK was distributed to the local municipalities (7/8) and the county municipalities (1/8). Due to high profitability in some of the fish farming companies in recent years, there is a public debate that increased in 2021 about how the industry should contribute to the society through taxes and fees

AKVA group´s contribution to the aquaculture innovation system



The aquaculture industry (farmers and suppliers) is dependent on a close cooperation with research institutions and public management in different countries, here called the aquaculture innovation system to achieve a more sustainable future.

AKVA group contributes to this innovation system through many activities like:

- Participating in innovation Clusters like NCE Aquatech Cluster, Blue Maritime Cluster and Stiim Aqua Cluster . In 2021 AKVA group participated in a competence building initiative called Blue Sustainability Programme arranged by NCE Aquatech Cluster.
- Contribute as supervisors for students from different universities both at bachelor- and master´s degree level. We also give lectures to students at all levels from high school to university.
- Contribute and participate in different research initiatives to bring forward knowledge useful for the industry, public management, and the society. Examples are MICRORED and Track Plast (about plastic) and DypDom (about deep farming).

AKVA group is working actively together with other companies within the Norwegian Seafood Federation, to contribute to development of legislations, regulations, and standards together with authorities and other bodies at different levels. In 2021, AKVA group was very active in the revision of NS 9415:2021, a standard to prevent escapes from fish farms. AKVA group has also contributed to develop a strategy- and action plan for the Norwegian aquaculture industry to increase recycling of plastic and establish a tracking system for plastic based products. AKVA group is also working hard to increase focus on the total supplier industry .

Sponsorship

All employees in AKVA group Norway can apply for support to their local sports club or association. In 2021 the budget for this was NOK 100.000. AKVA group is also sponsor of the football club Bryne FK.

Governance

Creating a sustainable future depends on a sustainable business model. Corporate governance of AKVA group reflects our ambitions and values. It starts from the top with the management team’s guidelines for the organization.

Principles

AKVA group supports and respects the protection of internationally recognized human rights and ensures that the company is not complicit in human right abuses. AKVA group upholds the freedom of association and the effective recognition of the right to collective bargaining. The company agrees with the intention of ending all forms of forced labor, bringing child labor to an end, and put an end to discrimination in respect of employment and occupation. AKVA group works against all forms of corruption, including extortion and bribery.

Our values

Our values form the foundation of AKVA group’s governance. AKVA group’s core values are:

- Customer focus
- Aquaculture knowledge
- Reliability
- Enthusiasm

Our values are actively communicated internally and externally. The values describe AKVA group as an entity and are actively used as general guidelines for behavior, priorities, and decisions in day-to-day management. Our values are made available on our website, our intranet as well as in presentations internally and externally.

In Q4 our values, CARE, have been modified and 5 new Leadership Principles have been created, with the purpose to create a common and improved performance culture. A plan for roll out in 2022 has been agreed and consist of activities such as: Executive Management tour, identifying local “CARE-champions”, sharing of “CARE-moments”, establishing annual Employee Engagement Survey and a mandatory online training on our vision, mission, and values. A Leadership Development Program is also planned launched in 2023, to support the shaping of our common culture and leadership quality.

Our Values

We CARE for people, planet & profits

Value	Customer Focus	Aquaculture Knowledge	Reliability	Enthusiasm
Meaning	We understand the customer’s need and use our competence, solutions and pioneering mindset to create value and meet customer expectations.	It is the sum of our aquaculture knowledge, solutions understanding, and professional expertise that enables us to develop and deliver leading solutions and services.	We deliver on time, with the right cost and quality, because we assess the risks, plan, and take ownership of what we do.	Enthusiasm is about being inspired and having faith in what we are doing; it unites us in pioneering a better future.

Code of Conduct

AKVA group has an established Code of Conduct giving detailed instructions on regulations, policies, and responsibilities as well as acceptable behavior and conduct. The Code of Conduct applies to all employees throughout the world, including temporary personnel, as well as the Board of Directors in AKVA group ASA and its subsidiaries.

The purpose of the Code of Conduct is to ensure that all people acting on behalf of AKVA group perform their activities in an ethical way and in accordance with the standards AKVA group has defined through regulations, policies, and guidelines.

It is AKVA group's policy to comply with all applicable laws and governmental rules and regulations. The code is an important tool to secure compliance with these laws, rules, and regulations.

The Code of Conduct is published on the Group's intranet and enclosed as part of new employment contracts. The code gives clear instructions to all managers in the Group to make sure the code is known and complied with by all employees.

Violation of the Code of Conduct is not tolerated and may result in internal disciplinary actions, dismissal, or even criminal prosecution. Should an improper practice or irregularity occur within the company, the company is committed to make necessary corrections and take remedial action to prevent recurrence.

The Code of Conduct covers the following main areas:

- Policy on personal conduct and behavior based on mutual respect
- Restrictive policy on use of intoxicants
- Policy on equal opportunities
- Policy on anti-corruption and conflict of interest
- Policy on compliance with laws and regulations including laws and regulations on antitrust and competition as well as insider trading

AKVA group's Code of Conduct has been developed into two e-learning modules (English and Norwegian languages) and all new employees will be invited to the e-learning as part of the HRM onboarding process.

The Code of Conduct will be regularly revised to ensure adoptions to new regulations and consensus on good governance and conduct. The Code of Conduct was last revised and presented to the Board of Directors in October 2018.

Supplier requirements

All suppliers of externally supplied processes, products and services go through a qualification and evaluation before becoming an approved supplier to AKVA group.

Suppliers are qualified through answering a questionnaire that has the following main topics:

- Financials, competency, and capacity
- Quality Management System
- Environmental Management System
- HSE
- Business Ethics

The suppliers are also risk assessed in accordance with AKVA group's policies as well as local procedures, and that risk assessment should be subject for an annual review. Supplier requirements have been designated as a priority area in our sustainability roadmap.

Openness and dialogue with stakeholders

AKVA group aims to keep an open and constructive dialogue with people, organizations and other stakeholders affected by our operations. We believe transparency, dialogue and public reporting will help improve our business.

AKVA group's adoption of the UN Global Compact principles has been implemented as standard in contracts with suppliers from 2014 and onwards.

No incidents or violations of policies within the area of Social Responsibility have been reported to the Management or Board of Directors in 2021.

Policies and actions to prevent corruption

The policies and actions to prevent corruption are all documented, communicated, maintained, and controlled in AKVA group's Quality Management Systems. Any deviation or non-conformity shall be reported herein. AKVA group has a zero-tolerance policy on corruption.

Bribery

Employees in AKVA group shall not offer or accept any bribes. Bribery occurs when a person gives or offers a gift or favor for himself to achieve an unfair advantage. AKVA group do not allow so-called "facilitation payments", i.e., entitled payments made to secure or expedite something.

Gifts, favors and entertainment

Employees in AKVA group should exercise caution in giving and receiving gifts, services, and other benefits. Gifts, services, and benefits shall not go beyond what is considered normal and reasonable in the country of operation. The size and circumstances of gifts, services and benefits that are given or received shall always be of such character that an employee can speak openly about it.

The policy underlines that gifts etc. under no circumstances shall be offered or received in relation to:

- A negotiation, an application, an offer, or other situations where it is expected to give something in return, or
- Money, loans, and private services, or
- Frequent gifts or
- Gifts to public officials or politicians, or
- Gifts with specific conditions or
- A gift with a value exceeding \$ 100 (without the prior written consent of the employee's manager)

In addition to these guidelines, employees are required to follow local regulations, including tax laws.

Actions and status

The policy and guidelines to prevent corruption and fraud is stated in AKVA group's Code of Conduct. Special management attention is given to safeguard the strict anti-corruption policy, enforcing strong awareness among employees on all levels.

Actions are systematically implemented, including:

- Sales and projects staff working towards and/or operating in markets with historical records of corruption, are followed up with special information and training courses aimed at enhancing understanding and awareness
- Anti-corruption clauses are implemented in all significant contracts with suppliers and customers from 2014 and onwards
- Anti-corruption clauses are included in new agent and distributor agreements
- Anti-corruption clauses are included in significant contracts in emerging markets

As of today, no incidents of corruption involving AKVA group have been reported to the Management or the Board of Directors in AKVA group.

Conflicts of Interest

Employees in AKVA group shall not attempt to gain advantages for themselves or relatives that are unlawful, or in any way may be in violation of AKVA group's interests or reputation.

Duties, positions, and ownership of external business

Employees in AKVA group shall not be involved in matters or enter into agreements that may either conflict with or damage AKVA group's interests or provide the employee with benefits. This includes conditions that puts a person's independence in question, for instance if an employee or his/her family/close connections have financial interests tied to AKVA group's operations.

Employees in AKVA group shall avoid relationships or agreements that may affect his or her actions or judgement and make others question their independence.

Employees in AKVA group shall avoid ownership interests or directorships in other companies if this is likely to undermine the loyalty to AKVA group. Board positions and/or equity investment in companies that compete or are doing business with AKVA group shall always be subject to prior approval from the employee's supervisor/manager.

Political activity

AKVA group does not provide any form of financial or other support to political parties. AKVA group may however support or promote political views in matters affecting its business interests.

Prohibition on the purchase of sexual services

Purchase of sexual services on a business trip, or in connection with the execution of an assignment or work for AKVA group, is unacceptable and shall not occur.

Purchase of sexual services is prohibited by law in Norway. This prohibition also applies abroad for Norwegian citizens and persons with permanent residence in Norway.

Actions and status

The policy and guidelines on integrity and conflict of interests are stated in AKVA group's Code of Conduct. Violation is not tolerated and may, in accordance with relevant legislation, lead to internal disciplinary actions, dismissal or even criminal prosecution. Should an improper practice or deviation occur within the Company, the Company is committed to make necessary corrections and take remedial action to prevent reoccurrence. No violations of the policy and guidelines for Integrity and Conflict of Interest have been reported to the Management or Board of Directors during 2021.

Compliance with standards, laws, and regulations

Compliance with standards, national laws and regulations are the basis for AKVA group's operations in all countries.

Employees and directors in AKVA group shall:

- Comply with all applicable laws and regulations when acting on behalf of the company, including the obligation to report and pay taxes.
- Under no circumstances cause or contribute to violations of the general and specific competition regulations, such as price-fixing, illegal market sharing or other conduct in violation of applicable competition laws.
- Comply with applicable legislation and internal instructions on insider trading and insider information. This includes acting on or providing advice on the sale of securities in AKVA group based on non-public information made available through the employee's work in AKVA group.

The policy and guidelines of compliance with laws and regulations are stated in AKVA group's Code of Conduct and in AKVA group's Quality Management Systems.

AKVA group has developed and issued guidelines for insiders in accordance with the recommendations set by Oslo Stock Exchange. These guidelines are documented, communicated, maintained, and controlled in AKVA group's Quality Management Systems.

No incidents of non-compliance with the policies of Compliance have been reported to the Management or the Board of Directors in 2021.