



nuterra™

Our sustainability programme

It's not just what we aspire to do,
it's what we do

Sustainability report

Global · 2016



nutreco



Sustainability report

Global · 2016

Nuterra, a bolder step

Jose Villalon, Sustainability Director at Nutreco



In order to facilitate sustainable food security, farming – whether on land or in the water – needs to evolve through the adoption of new techniques and technologies much faster than at present. Bolder steps are essential at every level, including animal and aquatic feeds, so that resources everywhere are used more efficiently, environmental impacts are reduced and productivity is elevated. At Nutreco, these ambitions are an integral part of our strategy and are realised through the delivery of highly innovative, sustainable nutritional solutions.

Our new global sustainability programme, Nuterra, provides the vision and actions needed to ensure that we live up to our responsibilities and ambitions throughout our business. Crucially, Nuterra makes it easier for us to package sustainability in a practical way that provides the most value for our customers. All of our customers sell their products in very competitive marketplaces, but by being able to explain what we as their feed company are doing in terms of sustainability and why, translates directly into what they, our customers, are doing from a sustainability standpoint and helps them distinguish themselves further.

Another important objective fulfilled by Nuterra is the capacity to hold ourselves accountable in terms of what we aspire to achieve over the timeframe designated in our Nuterra Roadmap, which aligns our actions and initiatives over a period of multiple years. Essentially, Nuterra is a comprehensive platform that makes sure Nutreco is indeed 'walking the talk' and directly supporting our customers' sustainable products.

Another new direction that we took this past year was a realignment of our Nuterra Roadmap with the recently launched 2016 United Nations' Sustainable Development

Goals (SDGs). These SDGs define global sustainability priorities and seek to mobilise efforts around a common set of targets. They encourage businesses to seek opportunities for creating shared value for their own benefit as well as for society in general. For Nutreco, this is both valid and exciting as it ensures that we align with this global initiative within the private sector and it helps guide us in pulling all of our initiatives in a common direction. In other words, while we each have a part to play, the cumulative effect of a shared focus helps piece solutions together in a much more efficient way.

Alongside these advancements, we also joined a number of multi-stakeholder platforms and formed partnerships with other strategic stakeholders to address specific environmental impact issues. As well as conventional platforms related to responsible soy, responsible fishmeal and fish oil and responsible aquaculture and feed, our CEO participated in the new Seafood Business for Ocean Stewardship initiative.

Collaborative programmes such as these are essential to progress towards our company-wide Mission of 'Feeding the Future', while contributing to the second UN Sustainable Development Goal – Ending Hunger.

Aquaculture industry with a licence to grow



Steven Rafferty, Managing Director of Skretting

A sustainable aquaculture industry holds the key to meeting many global challenges; not least, feeding a population that is expected to exceed 9 billion people by 2050. Currently, oceans provide just 2% of the food that we eat despite occupying 70% of the Earth's surface. While it is widely accepted that the scope for capture fisheries to increase their harvests is negligible, aquaculture is much better positioned.

At Skretting and parent company Nutreco, we recognise that we are ideally placed to contribute towards greater sustainable output in the feed-to-food chain because of our global presence, our focus on innovation, our technical expertise and our commitment to the highest standards of quality and safety. We have long held a comprehensive sustainability vision, which is based on clear ambitions regarding people, planet and profit. These ambitions are realised through the delivery of highly innovative and sustainable nutritional solutions.

During the last 12 months, we launched two of our most significant breakthroughs. Through MicroBalance FLX, it is now possible to replace traditional marine-based salmon feed components such as fishmeal with alternative ingredients while ensuring fish retain the eating and nutritional qualities that consumers expect. Similarly, through a joint development collaboration, we are providing a groundbreaking algae oil containing long chain omega-3 fatty acids, thereby giving the aquaculture industry the capability to interchange between traditional fish oil and algae oil. Via these two unique technologies, we are equipping the aquaculture industry with a licence to grow.

The rise of antimicrobial resistance (AMR) is recognised as one of the greatest threats to public health today, with evidence confirming that AMR is driven by the sheer volume

of antibiotics used in society and in food production. We believe that judicious use is crucial in the interests of human health as well as for animal health and welfare, and one way we are tackling the problem head on is through Pincoy – a new collaborative programme that we have established alongside local and global companies to reduce antibiotic use in the Chilean salmon farming industry while also delivering measurable sustainable growth.

Our collaborations further extend to number of initiatives in developing regions where the transfer of technology and expertise can help ensure the long-term viability of fish and shrimp farming ventures that are essential to local communities as a long-term source of food and income. Among these schemes is a project to support small-scale catfish farmers in Nigeria. To increase the productivity, profitability and sustainability of these operations, several farmers have received training in crucial areas such as feed management, disease and water quality.

It is also pleasing that we reduced our carbon footprint by 3% in 2016 because an equally important part of our sustainability commitment is to ensure that our own house is in order when it comes to the production of our fish and shrimp feeds. This responsibility will drive further energy efficiencies across our operations globally in the future.

SUPPLIERS

MARINE

Majority of the marine ingredients used in our feeds are sourced from wild capture fisheries. These resources are limited and if not managed properly can contribute to overfishing, biodiversity loss and human rights violations.



AGRICULTURAL

The production of crop based feed ingredients require the input of limited resources such as energy, fertiliser, land and water. If not managed properly feed ingredients can contribute to a loss of biodiversity, climate change and human rights violations.

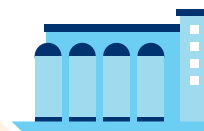


The road to double production

The road to half the footprint

Our operations are built upon a solid foundation of human resources who have the power to drive the business forward if provided with favourable labour conditions and a safe working environment.

PRODUCTION



Our factories use limited resources such as energy and water to transform feed ingredients into nutritional solutions. In this process we also create GHG emissions, effluents and waste which can have detrimental impacts.

Aquaculture farming performance is determined by animal health, nutrition and farm management. Providing integrated solutions that address all three will enable farmers to maximise efficiency, minimise waste and maintain animal health and welfare. This includes models that accurately match requirements to the feeding strategy.

CUSTOMERS



The misuse of antibiotics in farming can lead to the development of resistant bacteria. This can have serious implications for animal health and welfare as common drugs are no longer effective to treat infections if they occurs.

Consumers around the world are demanding high quality and nutritious seafood – fish and shrimp. Meeting this demand will require innovative solutions that improve the nutritional composition, taste and yield of fish and shrimp products.

CONSUMERS



Lack of dynamic quality assurance and control at every stage of production can result in food safety issues for the end consumer.

DOUBLE PRODUCTION

HALF THE FOOTPRINT

**WHERE WE ARE LOCATED
OUR GLOBAL SUSTAINABILITY EFFORT**

IMPORTANT FARMED SPECIES WE DELIVER FEED TO:

Molluscs; Abalone. Fishes; Amberjack, Atlantic Salmon, Arctic Char, Barramundi, Cachara, Carp, Catfish, Cobia, Coho Salmon, Cod, Cleaner fish, Eel, Flounder, Grouper, Halibut, King Salmon, Lumpfish, Mahi Mahi, Matrinchã, Meagre, Milk Fish, Northern Pike, Pacu, Paddlefish, Perch, Piaucu, Pintado, Pirapitinga, Pirarucu, Rainbow trout, Red Drum, Sablefish, Seabass, Seabream, Snakehead, Sole, Steelhead, Sturgeon, Striped Jack, Tambacu, Tench, Tilapia, Trout, Tuna, Turbot, Wrasse, Yellowtail, Zebrafish. Crustaceans; Penaeus Shrimp, like for example Whiteleg Shrimp, Giant Tiger Prawn.

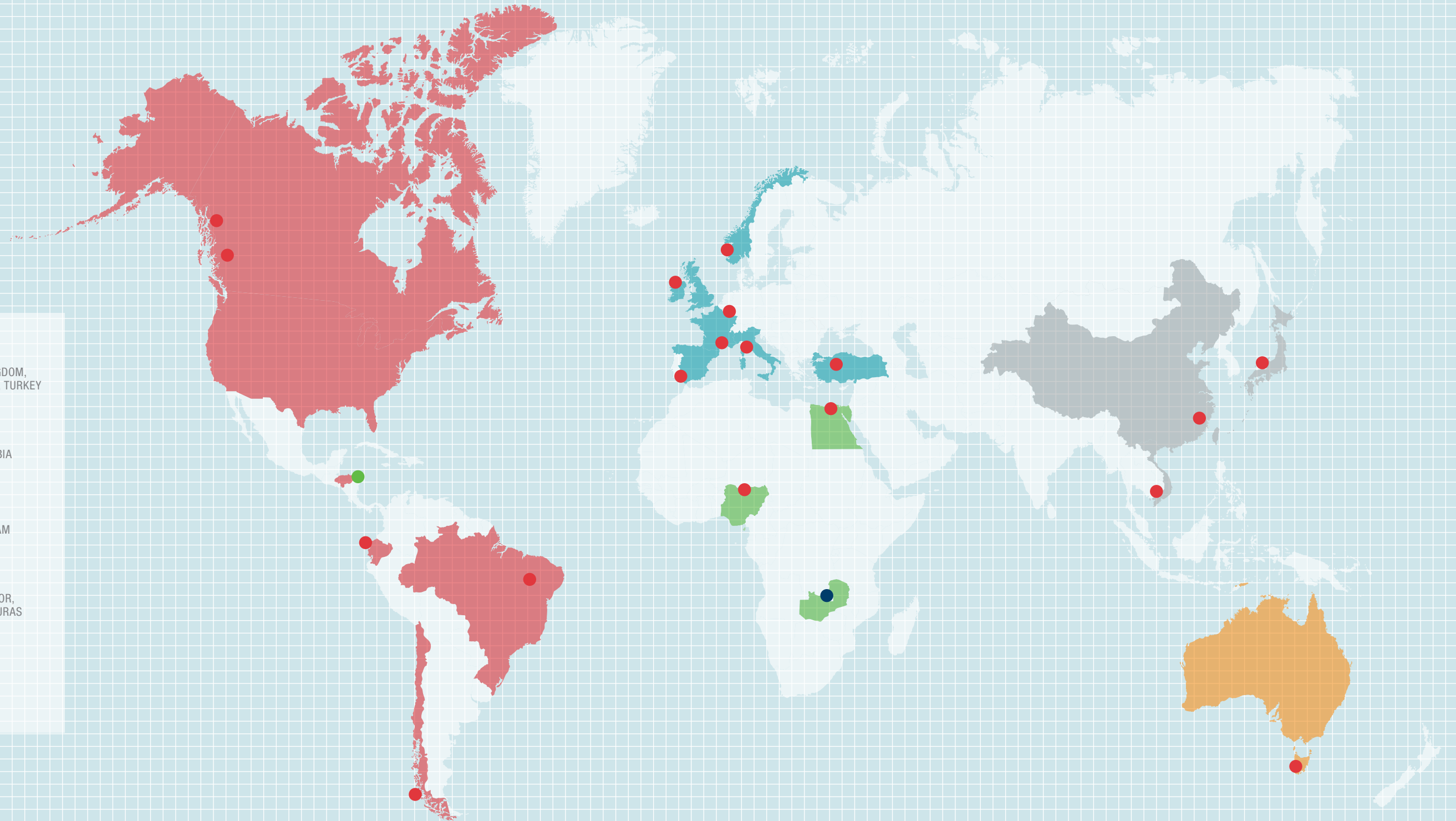
2,905 EMPLOYEES
2,450 MALE
455 FEMALE

2 MILLION TONNES OF FEED

PRODUCTION IN 18 COUNTRIES

- PRODUCTION
- JOINT VENTURE
- UNDER CONSTRUCTION

- **EUROPE**
NORWAY, UNITED KINGDOM,
FRANCE, SPAIN, ITALY, TURKEY
- **AFRICA**
EGYPT, NIGERIA, ZAMBIA
- **ASIA**
JAPAN, CHINA, VIETNAM
- **AMERICAS**
CANADA, USA, ECUADOR,
CHILE, BRAZIL, HONDURAS
- **OCEANIA**
AUSTRALIA



Our Nuterra programme

The Nuterra programme sets out Nutreco's sustainability strategy and provides the tools required to implement this throughout our company. The Nuterra programme is made up of three distinct components.

Nuterra Roadmap

Our Nuterra Roadmap sets clear ambitions regarding people, planet and profit. It is an aspirational vision designed to align our actions and initiatives over a period of several years, as we work to fulfil our Mission of 'Feeding the Future'. These objectives are aligned with the long-term goals of our strategy as well as the UN Sustainable Development Goals.

The roadmap is grouped into four areas:

-  **Ingredients**
-  **Operations**
-  **Nutritional Solutions**
-  **Commitment**

Nuterra Standard

Our Nuterra Standard is an internal tool that clearly outlines the actions needed to realise the Nuterra Roadmap and enables us to measure and score progress over time.

Our operations undertake this assessment biannually to ensure that we hold ourselves accountable in our sustainability aspirations and targets.

Nuterra Product Assessment

The Nuterra Product Assessment is a tool that helps us to measure the environmental impacts and attributes of our nutritional solutions. It uses Life Cycle Assessment methodology to systematically evaluate the environmental aspects of using our products and services.

Important indicators of measured sustainable nutritional solutions include greenhouse gas emissions, acidification, eutrophication and energy use.



NUTRITIONAL SOLUTIONS

Enabling the animal and farmer to perform better

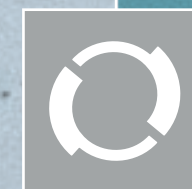
- Farm and feed performance
- Animal health and welfare
- Young animal feed
- Minimise food safety risks



INGREDIENTS

Creating a sustainable base for feed

- Responsible sourcing
- Sustainable partnerships



OPERATIONS

Ensuring our own house is in order

- Reducing environmental impact in our operations
- Improving our own working environment

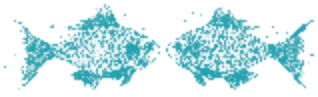


COMMITMENT

Involving people in the challenge of 'Feeding the Future'

- Employee engagement
- Stakeholder engagement
- Community development





Nuterra supports the UN Sustainable Development Goals

In 2015 the United Nations introduced a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people like you.

Skretting believes that our Nuterra programme within many areas is aligned with the UN Sustainable Development Goals (SDGs). Our Mission of **'Feeding the Future'** is about fulfilling goal number 2; **End hunger, achieve food security and improved nutrition and promote sustainable agriculture.**

If done right, agriculture, forestry and fisheries can provide nutritious food for all and generate decent incomes, while supporting people-centered rural development and protecting the environment. Skretting is proactive in positively influencing the sustainability of aquaculture. Our Nuterra programme details the measures we have in place to ensure we are supporting a growing world population.

Also each of the four pillars in the Nuterra programme: **Nutritional solutions, Ingredients, Operations and Commitment** – addresses several of the UN sustainability goals within specific areas. So to a large extent our Nuterra report is a report describing how we work and what we have achieved to support the United Nations in their effort to establish a new sustainable development agenda.

Our Nuterra programme within many areas is aligned with the UN SDGs. Our mission "Feeding the future" to us is about fulfilling goal number 2; "End hunger, achieve food security and improved nutrition and promote sustainable agriculture."



Our mission
feeding the future
nuterra



Ingredients



Working against net deforestation
Marine ingredients from responsibly managed fisheries
Preventing loss of biodiversity due to valuable habitats being converted into agricultural land



Operations



A valued working place in our local community
Reduce GHG emissions from our operations
Energy, water and waste reduction



Nutritional Solutions



Resource efficient nutritional solutions
Finding alternatives to limited marine resources



Commitment



Enter into dialogues with stakeholders and engage in community development projects



Nutritional Solutions

Skretting's unique combination of products, services and models are designed to help farmers boost productivity, support animal health and minimize negative environmental impacts, and by doing so we address three UN SDGs.



Antimicrobial Resistance (AMR) is a serious health concern that is predicted to overtake cancer as the leading cause of death by 2050. The rapid progression of this is believed to be caused by the misuse and overuse of antibiotics in people and animals. To address this issue in aquaculture there must be a reduction in the non-therapeutic use of antibiotics for growth promotion or to prevent disease needs. Skretting offers nutritional solutions that help farmers to reduce their reliance on antibiotics without impacting growth. This adds value to the farmer in terms of productivity as well as helping to address AMR.



Feeds are a major source of the economic and environmental costs associated with animal production. Skretting offers a range of Nutritional Solutions which help farmers to reduce these costs by enabling them to produce more from less. This includes MicroBalance FLX (reducing dependency upon fishmeal), Shield (repelling lice from salmon), Lorica (supporting good health in shrimp) and feed for cleaner fish used in salmon farming (cleaner fish eats lice and reduce the need for chemical treatments).



As the population grows, so too does the demand for seafood with per capita consumption doubling from the 1960 until now. The majority of this growth has been supplied by aquaculture which currently represents 50% of global seafood consumption. Ironically this rapid expansion could increase pressure on wild fish resources which have traditionally been a major source of the vital nutrients used in aquafeeds. After years of research at Skretting ARC we are now able to produce fishmeal-free diets. This not only creates value for our industry by enabling continued growth, it also benefits society by taking pressure off precious marine resources.

Pincoy Project

The Chilean salmon industry has long been criticised for its extensive use of antibiotics. The primary reason for the high usage of these medicines has been to combat Septicemic Rickettsial Syndrome (SRS), a bacterial disease that has hit the Chilean salmon industry hard for many years.

In recent years, growing pressure from governments and consumers has resulted in a strong industry focus to reduce antibiotics. Although this has led to the development of many useful innovations, none of these have resulted in large-scale improvements as they were all deployed in isolation. To overcome this challenge, Skretting initiated the Pincoy Project in 2016 to bring together industry partners from various stages in the Chilean salmon production chain to find a holistic solution. Participants include Skretting, AquaGen/Blue Genomics, Pharmaq, Centrovet, Cermaq, Blumar and Ventisqueros.

The project aims to halve the use of antibiotics on pilot farms by the end of 2018. To achieve this ambitious target, an all-inclusive approach has been adopted that incorporates the skills of the various project partners. This includes selective breeding, high quality hatchery diets, smolt selection, vaccines and the implementation of best-practice protocols and monitoring throughout the production cycle.

This collaborative approach has received a warm welcome from the industry and beyond. "As a farming company, we actually grow the fish. All the knowledge of all the partners in the value chain is coming together on our farms and is implemented there. It's great to work with new and highly innovative techniques and procedures," says Julio Mendoza, Director of Research & Development at Cermaq Chile.

Despite this enthusiasm, working together to achieve a common goal is not without its problems. "The biggest challenge has been intensifying the collaboration and increasing mutual trust. At the beginning, I thought 'we'll get everyone around the table and then the rest will be plain sailing'. But it took months and not weeks until all the working groups in the project were up and running," says Ronald Barlow, General Manager at Skretting Chile.



The best way of continuing to intensify mutual collaboration is to show what it delivers. "We are expecting to achieve good results in the period to come," says Barlow. This motivates people to proceed in a co-operative way. Pincoy is a global model project and we're confident that this initiative will contribute to our industry. I hope and expect that it will also inspire others."



COMMERCIAL TRIALS IN SCOTLAND EVIDENCE REDUCTION OF SEA LICE

Shield has been shown to have a marked impact on lice numbers through in-vitro and full-scale commercial trials.

One commercial trial in Scotland exceeded all expectations, explains Alan Bourhill, Marketing Manager for Skretting UK. Some 7,000 tonnes of the diet were fed to fish at one site over a 23-week period. The performance was compared to a nearby site with a comparable lice challenge.

“It resulted in a 42-day delay to the cages reaching an average of 1 louse per fish; the overall level of lice per fish fell by 56%; and the cages containing the fish fed Shield required one less bath treatment, leading to significant cost savings,” says Bourhill.

He explains that there are two principle ways that the formula works: The choice of functional ingredients was made to both improve the fishes’ ability to repel lice – it creates more mucous, reducing settlement rates and increasing the time between treatments

– and to make the fish more robust by mounting a stronger response to any lice challenge.

Indeed, tests in a two-part treatment tank at Skretting ARC in Stavanger showed a 19% reduction in lice numbers on the side of the tank which contained fish which has been fed entirely on Shield.

“It’s obviously not a solution to lice but is a valuable part of an integrated pest management strategy, which will help to reduce overall lice numbers and we’re confident in the science and research behind the feed,” says Bourhill.

“Functional feed uptake is increasing – it is testament to the increasing sophistication of our nutritional understanding – and we’ve had a lot of interest in the product.”



Julia Mullins

Audhild Blomsø

Prevalent in Norway, Scotland, Ireland, Canada and Chile, sea lice have long been a major challenge to the salmon farming industry, causing significant economic losses through decreased fish quality and growth, husbandry and treatment costs, stress and even fish losses.

LERANG LABORATORY FOCUSING ON SEA LICE DEFENCES

Since 2011, a state-of-the-art laboratory at our research station in Lerang, Norway, has been dedicated to developing management techniques to deal with sea lice infestations.

“It is Skretting’s long-held belief that functional nutrition strengthens the immune system so fish can better cope and recover faster from disease and environmental challenges. Functional feeds are a key component to successful integrated pest management (IPM) strategy,” explains Julia Mullins, the laboratory’s lead co-ordinator.

At the laboratory, experimental conditions including light, water temperature, feed intake and infection challenge are rigorously controlled, thereby providing the most dynamic

platform to conduct extensive evaluations of many natural, functional feed ingredients against sea lice. This work led to the development of Shield, a complete feed that decreases the level of sea lice attachment and also supports fish defences.

“Last year, we launched Shield. In 2017, we are working further on optimising the lice challenge model. It is a continual process. Sea lice are a naturally occurring problem; they are not going to go away, so we have to keep working on it,” says Mullins.

How feeds are supporting salmon against the sea lice challenge

While in-feed and bath medicines have traditionally been used to treat sea lice infestations, resistance to some of these treatments has become increasingly common, which has in turn led to increased emphasis being placed on finding alternative, non-medicated remedies.

Launched in 2016, following a comprehensive series of laboratory and pilot trials that documented as much as a 20% reduction in sea lice infestations, Shield is a new high-energy functional feed that has been expressly developed to support salmon’s defences against such challenges.

“Less lice means much less treatment is required. Using Shield in combination with other measures such as cleaner fish, salmon farmers are able to dramatically reduce and even eliminate the need for medicines,” says Audhild Blomsø, Veterinarian and Head of Fish Health at Skretting Norway.

Just as mosquito repellent contains substances that mosquitoes dislike, Shield contains natural ingredients derived from plants that sea lice detest, meaning that the feed achieves this effect without the addition of antibiotics or chemicals.

“All of the components and raw materials used to produce Shield are certified and undergo the same strict control as all of our other products. Therefore, we know that the Shield has no negative impact on either the environment or the fish,” says Blomsø.

In addition to repelling sea lice, as a high-energy diet, Shield provides lower feed conversion, faster growth in the salmon and increased harvest yields for farmers. In addition, faster growth also means the fish spend less time in sea cages, she says.

“With regards to the sustainability of salmon production, these are important benefits. Reduced FCR means that the fish need less feed to grow and we are able to utilise the feed ingredients more cost-effectively. With increased harvest yield, we are increasing the overall food supply.

“The shorter production time in the sea reduces the risk of fish being challenged by diseases and sea lice, which also contributes to reducing medicine and chemical use in the salmon industry,” says Blomsø.



OPTILINE SHRIMP

An Ecuadorian experience

Shrimp farmers in Ecuador have an overriding aim to increase their shrimp production in a more sustainable manner. In 2016, Skretting Ecuador was launched to support the growing need for sustainable shrimp and fish feeds in Ecuador, Peru and across Latin America.

In a series of launch events, Skretting Ecuador engaged with hundreds of shrimp farmers, sharing our latest Optiline Shrimp concept that will benefit Ecuador's shrimp industry by helping reduce feed conversion ratios, while boosting growth and survival rates.

Angela Gutierrez del Alamo Oms, Skretting's Technical Manager for Ecuador says, "This innovative feeding breakthrough could revolutionise shrimp production in many production regions. We have documented a 50% reduction in feed conversion ratio, doubled growth to 2 grams per week and increased the survival from 50% to 85%."

By aligning the appropriate high-specification nutrition with precise feed management procedures it could bring about a new golden era for the region's shrimp farming sector.

According to Lenaig Richard-Breivik, Global Product Group Manager for Shrimp at Skretting, "The Optiline Shrimp concept allows us to provide the right nutrients for the right needs of the animal in order to maximise nutrient utilisation. However, it is the combination of understanding both the nutrition and optimal feeding practices that truly allows for improvements in survival, growth performance and optimisation of the farming system as a whole (feed in, water quality, feed waste, health status of animals)."

This allows the farmers to have a more efficient production while lowering their impact on the environment. It is an ideal approach to increase aquaculture production volumes in a sustainable manner.

"As the Global Product Group Manager for Shrimp, I believe that the particularities of shrimp farming in different regions of the world can be integrated in order to provide tailor-made feed solutions that always aim to achieve high-quality animal welfare, farming practices and end product. Continuous development will be the key to achieving more growth, in less time while maintaining the environmental balance"

Lenaig Richard-Breivik,
Global Product Group Manager for Shrimp

"Having migrated from a standard diet to the premium Optiline feed has allowed me to take my shrimp farming to a much more efficient and productive level. Undoubtedly, from that moment the growth of our shrimp has been excellent and constant; with more than a 60% increase. We have achieved a suitable nutrition, according to each stage of the animal; generating an increase of approximately 50% of hectare/day profit. In addition, by maintaining a relationship with the same supplier, we achieve a better control and follow-up in our farm management; always maintaining high quality results"

Leonardo Romero,
Ecuadorian shrimp farming company Osmomar





LORICA
Helping farmers in Vietnam to produce healthy shrimp

Shrimp production is a major part of Vietnam's aquaculture industry with the widespread farming of species such as black tiger shrimp, Pacific whiteleg shrimp and giant prawns. Most shrimp farming in Vietnam is conducted in earthen ponds, ranging in size from family ventures with just a few ponds up to large industrial operations.

Throughout the global shrimp farming industry, the majority of grow-out sites are exposed to the natural environment. This makes it difficult for farmers to protect their stocks from harmful bacteria, such as the one known to cause early mortality syndrome (EMS) – more technically known as acute hepatopancreatic necrosis syndrome (AHPNS) – which has devastated shrimp stocks across Southeast Asia and Central America. Among the other challenges to have caused significant problems for farmers is the White spot syndrome virus (WSSV).

Building on our considerable experience in fish health, we have invested strongly in R&D to find the right combination of novel functional ingredients for inclusion in shrimp feeds that will work in synergy to support the functioning of the shrimp's immune system and to help protect it against hostile threats. This new product is called Lorica.

In 2016, Skretting Vietnam arranged for Lorica to be evaluated by local shrimp farmers with Michael Leger, Technical Manager, organising field trials in seven provinces. At the same time, Skretting Aquaculture Research Centre (ARC) conducted a series of controlled tests. Many positive outcomes were documented from this comprehensive programme: Growth rates and feed conversions improved, while a decrease in EMS-related mortality was also observed.

Through considerable R&D over many years, Skretting has developed the industry leading proactive health diet Protec, which contains active ingredients that act in synergy to enhance the ability of fish to cope with stressful situations – caused by such things as disease, handling, transport and vaccinations. Crucially, these active ingredients also support the immune systems of fish.

Dr Charles McGurk, Manager of Fish & Shrimp Health at Skretting ARC, comments, "Thanks to this knowledge and expertise, we have proved that shrimp farmers do not have to rely on antibiotics and risk building up antibiotic microbial resistance (AMR) in their stocks.

"The functional ingredients in our feeds enable shrimp farmers to take proactive steps that will support the primary defences of their stocks against environmental threats, while also playing their part in addressing the antibiotic microbial resistance challenge. At Skretting, we believe this is the way things should be done."

"Lorica is a solution to help shrimp farmers prevent disease on their farms; but it will not treat disease. We recommend that it should be used one week before stress situations and also during the first month after shrimp are transferred to their ponds. In addition, it is important to ensure that the production cycle begins with healthy fry and good water quality is maintained in the pond," says Leger.





“Having greater flexibility in the diets allows us to improve production efficiency in terms of the cost per kg salmon produced. This provides valuable support to sustainable growth of the aquaculture industry, as we no longer depend on specific raw materials such as fishmeal to produce a safe, healthy and tasty salmon product”

Bente Torstensen, Marine Harvest's Group Manager, Feed & Fish Performance.

MICROBALANCE FLX

A step change in fish feed flexibility



Skretting Aquaculture Research Centre (ARC) has devoted significant resources over the past three decades to exploring the potential for alternative raw materials to replace traditional marine-based feed components, while ensuring the final fish and shrimp products retain the eating and nutritional qualities that consumers expect. Aligned with this ambition, one of our biggest sustainability objectives has been to develop the capability to become independent of fishmeal. Launched in 2016, MicroBalance FLX is the biggest breakthrough in this work to date.

Because salmon require specific nutrients, not particular raw materials, it is just as straightforward for fish farmers to produce fish of identical growth, health and quality with a low fishmeal diet as it is with a standard diet. Through the unique technology in MicroBalance FLX, traditional feed ingredients are interchangeable, providing unprecedented formulation flexibility and enabling salmon farmers to produce more from less in a sustainable way.

“The arrival of MicroBalance FLX and becoming independent of fishmeal is a major breakthrough for the salmon sector and the aquaculture industry as a whole. Making a finite resource like fishmeal interchangeable – just like any other raw material – is crucial progress. However, FLX does not bring an end to Skretting ARC’s MicroBalance research. Quite the contrary, it is providing the platform to explore more alternative and novel raw materials for application with many more commercially farmed species with a view to progress the sustainable growth of the global aquaculture sector further,” says Ronald Barlow, Skretting Chile’s General Manager.



After its launch in Chile, several salmon producers decided to use Premium FLX as part of their productive strategy. As a result, in 2016 alone, we dispatched significant volumes of FLX-based feeds formulated without fishmeal, equating to the diet of more than 7 million salmonids.

At the same time, Skretting Chile conducted a benchmarking study with Marine Harvest comparing our Premium diet (5% fishmeal) with Premium FLX (0% fishmeal) at a seawater farm site growing out Atlantic salmon. Results found no difference in salmon growth, size and feed conversion or in the final product quality, fat content and pigmentation.

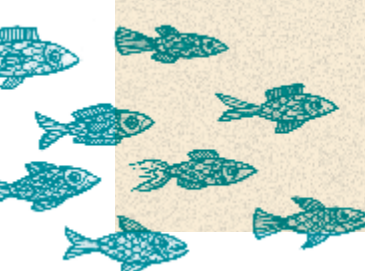


AQUASIM helping Egypt's tilapia farmers increase production

Skretting Egypt is using the Production Planner tool in AquaSim to help tilapia farmers to increase their production through a new programme called 'Club 500' – a name that reflects the 500-gram average slaughter weight of tilapia in the country.

Traditionally, Egypt's tilapia farmers have followed a production regime whereby they achieve 1.5 cycles of 500 gram fish per year, but by using AquaSim's planning tool alongside a high performance tilapia feed, they have been able to scale up to two cycles of 500 gram tilapia annually.

"We are now trialling the Club 500 programme with selected customers. To be able to produce in this way requires genetically improved tilapia as well as good water quality in the ponds. In addition, we are supplying the local market with high performance tilapia feeds and providing further support through our fish health management programme, which includes the application of new Protec Tilapia," says Mahmoud Asfoor, Assistant Marketing Manger at Skretting Egypt.



"Ensuring the availability of a modern system alongside the expansion to shrimp and tilapia were major steps forward for the AquaSim platform last year. And in 2017, we will be adding yellowtail to the portal, which will be particularly beneficial to our customers in Japan"
Kristoffer Tveit, Product Department Manager at Skretting

AQUASIM Optimising farm performance

Over the last two decades, Skretting's research teams have built a comprehensive portfolio of growth models for the large number of aquaculture species that we supply feeds for in order to forecast how they will perform in diverse surrounding conditions. This unique analysis, which is constantly being expanded to include new regions and situations, provides the platform for AquaSim, a groundbreaking product that connects all the value-added models and services available to our customers alongside the feeds that they are buying.



Throughout 2016, Skretting was focused on building and extending the AquaSim portal to ensure that it is in the most modern, user-friendly format possible as well as globally available. This included the addition of some key species, explains Kristoffer Tveit, Product Department Manager at Skretting.

"The two main newcomers were shrimp and tilapia. Potentially, this is where we could make the biggest, most immediate difference so far – providing precision farming to these very important, high volume sectors that are generally not as technologically sophisticated as salmon or trout production, for example. The scope for improvement in shrimp and tilapia is considerable and we believe AquaSim will have a major impact on both.

When viewing the AquaSim portal, in which users can hold their farm's data, fish and shrimp farmers see the weight development of their stocks over time, the biomass, the stocking density, feeding tables that include how much feed is given daily, which feed is being used and the total volume of each product used. Furthermore, producers have the opportunity to benchmark their farm's performance against the very latest models, as well as against the broader market and country averages.

Based upon appraisals of the farming environment and each farm's production targets, AquaSim also provides a number of tailored recommendations, including expected harvest weight and/or date, and the most cost-effective stocking patterns, feed selection and feeding strategy to enable each to achieve their desired results. Essentially, AquaSim helps producers optimise their business to a level of detail that they have not been able to in the past. It gives them a much more accurate insight into their production systems and enables them to have a lot more confidence in their operations.

"It is about transferring our farming knowledge, which from a sustainability perspective could lead to many significant improvements. Farming more effectively and better utilising the farm areas that we have available rather than trying to obtain more production sites is perhaps the most sustainable approach that farmers can take," says Tveit.

"We need them to make the most cost-effective decisions, incorporating precision farming. At the moment, many shrimp and tilapia systems, for example, are not the most technologically equipped with sensors etc. or with best-practice feeding and farming. AquaSim is a learning tool; it will help guide these farmers towards better practices."



Ingredients

Skretting is always seeking to expand our knowledge of the nutritional composition of feed ingredients as well as the impacts of the supply chains that create them. This helps us to deliver products that enable farmers to produce more from less, and by doing so addresses three UN SDGs.



Responsible production and consumption requires us to look beyond the traditional aspects of cost and quality when making purchasing decisions. At Skretting and Nutreco we have identified the relevant sustainability issues in our Supplier Code of Conduct which is signed by suppliers. Compliance with these requirements is then checked during supplier audits. We are also able to assess the environmental impacts of common feed ingredients using the detailed database which forms the basis of our Nuterra Product Assessment. From this we can model the impacts of different feed formulations which create value for us and our customers by helping us to become more informed about the implications of our production processes.



The United Nations estimates that 31.4% of the world's fisheries are overfished and a further 58.1% are fished at full capacity. With 10% of the total global catch used to make fishmeal and fish oil the aquaculture industry plays a vital role in ensuring these stocks are well managed. To address this Skretting and Nutreco has identified minimum sourcing criteria for marine products in our Supplier Code of Conduct and the Nuterra Standard. We have also partnered with other industry players, governments and NGOs in Vietnam and Peru to establish Fisheries Improvement Projects (FIPs). This creates shared value by improving the state of the world's fisheries resources whilst also ensuring the supply of sustainable fishmeal and oil into the future.



The production of feed ingredients has significant impacts to life on land. This includes GHGs, biodiversity losses and nutrient enrichment that arise from land clearing, fuels, pesticides and synthetic fertilisers. At Skretting and Nutreco we are dedicated to reducing these impacts by working with our suppliers. Our primary tool to do this is our Supplier Code of Conduct which outlines what we require of our suppliers in regards sustainability.



“For nearly two decades we have been looking for the raw material that can fully replace fish oil in fish feed production. At long last, we have the appropriate ingredients, knowledge and the technology in place”
Trygve Berg Lea, Sustainability Manager at Skretting

ALGAL OIL BREAKTHROUGH: Fish oil availability cannot limit the growth of aquaculture

In 2016, Skretting was able to begin offering aquaculture feeds containing groundbreaking algal oil that consists of unprecedented levels of the two essential long chain omega-3 fatty acids EPA and DHA. Jointly developed by Royal DSM and Evonik, we believe that this alternative to the finite supply of fish oil will allow the aquaculture industry to continue to grow and enable more and more consumers all over the world to benefit from the health-boosting properties of delicious, nutritious fish.

Skretting Aquaculture Research Centre (ARC) builds on more than 20 years of extensive R&D in the application of fish oil alternatives in salmon and trout feeds while ensuring optimum growth and health of the fish. We see the new marine algal oil as a breakthrough in achieving this goal.

Royal DSM is a global science-based company active in health, nutrition and materials, while Evonik Industries is one of the world's leading specialty chemicals companies. Both have demonstrated long-term commitments to improving sustainability within the aquaculture industry, including delivering solutions to the salmon farming industry.

One of the principal findings in the DSM and Evonik joint development was the identification of a specific naturally

occurring marine algae that contains both EPA and DHA. We are collaborating with the two companies to ensure the aquaculture industry fully benefits from the opportunity presented by this innovation. The product is currently approved for use in Europe.

The new marine algal oil is produced by natural algae from the ocean and cultivated in controlled, land-based facilities. Not only does this algal oil provide a sustainable means of producing omega-3, it also ensures predictable volumes of EPA and DHA.

In nature, EPA and DHA are made by marine microalgae, accumulate in the marine food chain and ultimately become a component of fish oil. Algal oil is nature's source of EPA and DHA and removes the need to rely solely on fish oil as the source of marine

omega-3 fatty acids in salmon and trout feeds.

“By using marine oil produced from algae, Skretting makes much more effective use of energy in the food web. Indeed, last year's breakthrough makes it possible, for the first time, to leapfrog many stages in the food chain from algae, through plankton and crustaceans to fish which is the traditional raw material for marine oil production. Normally about 90% of energy is lost for each of the links in the food web; but now, a large proportion can be saved,” explains Lea.

Both fishmeal and fish oil will remain important feed ingredients; however marine algal oil allows us to offer a more flexible formulation to our customers as required.



Peruvian anchoveta fishery improvement project

The consumer market is demanding the highest level of sustainable seafood. Our customers are the producers of this seafood and in turn we supply our customers with the nutritional feed solutions to grow the fish.

We can only develop sustainable nutritional solutions if we are a part of a responsible and continuously improving supply chain. As a minimum, we require our suppliers of ingredients to demonstrate responsible production practices. For fishmeal and fish oils in aquaculture feeds specifically, there is clear market demand for those ingredients to be defined as “sustainable” through meeting the full requirements of the FAO Code of Conduct for Responsible Fisheries.

“The Peruvian FIP is one example of how Skretting has shown true leadership towards the sustainability of the aquaculture industry. Their vision for pursuing responsibly sourced ingredients has given us the assurance to meet our customers demand for sustainable seafood via our Aquaculture Stewardship Council certified products,” says Linda Sams, Head of Sustainability at Tassal Group Limited, Australia’s largest farmed salmon producer.



“Maintaining our ASC certification is important to our business and having a future, predictable supply of ASC compliant feed allows us to farm our salmon responsibly according to World best practice standards”
Linda Sams, Head of Sustainability at Tassal Group Limited

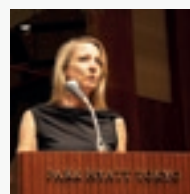
In order to fulfil this demand, which we see only growing in the future; we look for potential fisheries that can give a predictable supply of sustainable marine ingredients. It is our judgment that the Peruvian anchoveta fishery is well positioned to meet such a demand. Today, we have a growing demand from our customers to demonstrate this through delivering feed compliant with the ASC standards.

In a proactive move towards securing our supply of ASC compliant marine ingredients, Skretting and Cargill Aqua Nutrition joined together and approached members of the Peruvian fishmeal and fish oil industry to discuss the implementation of a fishery improvement project (FIP). In cooperation with the Peruvian National Fishery Organisation (Sociedad Nacional De Pesquería), there is now agreement to establish the FIP in Peru, with final action plans currently being established.

This FIP aims to strengthen research, management and sustainability of the Central and Northern Peruvian anchovy fishery. The project will include a benchmark against the Marine Stewardship Council (MSC) fisheries standard. The project will follow the guidelines for a comprehensive FIP set out by the Conservation Alliance for Sustainable Solutions to ensure its credibility and seek maximum collaboration with all stakeholders.

Jo-anne McCrea, WWF Australia, highlights that with over 30% of fish stocks overfished globally, and global demand forecast to rise 29% by 2022, there is a clear need for a significant shift towards sustainable fisheries management. “However, the responsibility of this improvement should not rest on the fishing sector alone – buyers and end markets of fish products must demand sustainable products and be prepared to invest in the improvement programme to deliver changes on the water,” she says.

“Skretting, together with industry peer Cargill have shown such leadership in their sector by working collaboratively with the Peruvian anchovy fishery to secure an agreement by the industry to start on a fishery improvement project in 2017. WWF looks forward to Skretting and Cargill using its market power to ensure that the credibility of the FIP by requiring that it delivers comprehensive and credible on-the-ground improvements to the equivalent of MSC standards.



“Skretting builds upon work previously established via WWF Australia’s corporate partnerships with Tassal, Australia’s largest aquaculture company; Blackmores, Australia’s leading fish oil supplement brand; and Coles Supermarkets, who as a retailer, buys and sells aquaculture seafood. It highlights the power of collaboration between stakeholders to take steps towards securing the future of the environment,” says McCrea.



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Operations

We strive to minimise the negative impacts of our direct operations and create valuable employment opportunities for the communities in which we operate. These efforts directly address three UN SDGS.



Stig Støver

Water reduction at Skretting Australia

Water is a precious resource in Australia where droughts are common and predicted to increase in the future. Since water is a key component of our core business process of converting raw materials into fish feed pellets we must use it efficiently.

In 2016, the team at Skretting Australia embarked on a water reduction project, led by Manufacturing Manager, Stig Støver. There were three reduction areas identified for improvement.

We reduced the volume of water used in the extrusion process (addition of steam and water) through the modification of our process settings and the formulation of feeds. These changes improved energy usage (less water added, less water to dry out), and in many incidents even improved the product quality.

We activated a partially operational water recycling system, which made a profound impact. Up until now, the water was used and then discharged, but now it is recycled and hence we have reduced the need to purchase municipal water.

We optimised the volume of water required to irrigate our bio-filter functionality (a dry filter medium will not remove odour). As such we also reduced the cost of buying water, but more importantly it reduced the amount of water sent to trade waste.

“These three improvements accounted for a substantial water reduction (20% less water used per tonne of feed compared to 2015) and has had a profound impact on the environmental footprint of our operations in Cambridge. I am very satisfied with the outcomes, considering there were huge growth demands in production, the real impact was even greater than our ambitions,” says Støver.

“The coming year will be about consolidating the results, but the focus will continue within operations and for capital investment design activities to continue to identify and further increase our operational efficiencies.”



Productive employment and decent work are key elements to achieving sustainable economic growth and poverty reduction. At Skretting we provide employees with a safe and secure working environment through the implementation of HSE Standards as well as our Code of Ethics which clearly outlines our zero tolerance approach to discrimination and child labour. We also go beyond these fundamental basics by creating opportunities for our employees to develop their professional skills and engage in meaningful work through the provision of training and career development. These initiatives not only add value to lives of our employees and the communities in which we operate, but it also helps to improve the productivity of our operations.



Our production plants consume natural resources including water and non-renewable fuels in the process of making feeds. We also produce some undesirable wastes and emissions. To ensure our operations remain sustainable we must manage these inputs and outputs in a responsible manner. Skretting and Nutreco has implemented a rigorous system of data collection and reporting for 4 environmental KPIs – energy, GHG, water and waste. This data is used to inform management on the performance of our operating sites which enables them to identify opportunities for sustainable production and consumption. This creates shared value by improving the efficiency of our operations as well as reducing our environmental footprint.



The United Nations Paris Agreement on climate change entered into force in 2016. This sets a global action plan to avoid dangerous climate change by limiting global warming to below 2°C. To meet this ambitious target governments, business and society need to work together to reduce emissions. Skretting is working to reduce our own footprint through improvements to energy efficiency and shifting to energy sources that are less emissions intensive. This adds value to our bottom line by reducing costs whilst also contributing to the fight against climate change. For the emissions that are unavoidable we purchase offsets which support the development of sustainable energy systems.



Reducing our environmental footprint

As a global leader in the supply of fish and shrimp feeds, Skretting contributes to the aquaculture industry's sustainable progress through the provision of feeds that have been formulated from responsibly-sourced raw materials. An equally important part of this commitment is to ensure that our own house is in order when it comes to the production of these feeds, and this responsibility drives our focus areas of reducing energy use, carbon dioxide (CO₂) emissions, waste and water use across our operations globally.

In 2016, Skretting continued its robust evaluations of our environmental impact alongside the progressive implementation of practical measures to reduce those effects. With the introduction of Sustainability Dashboards with year-to-date data, we are now able to individually calculate the footprints of every single operation in our business and to set specific targets with regards to reducing energy use, carbon emissions, waste generation and water use. We are also able to identify ways in which to make the Skretting workplace safer and healthier for all of our employees, thereby reducing lost time incidents (LTIs).

Importantly, the systems and tools that are in place facilitate the constant monitoring of these five sustainability KPIs with the progress closely tracked by Skretting and parent company Nutreco. This is also incorporated into the quarterly business review process of all operations. Consequently, our sustainability performance is evaluated on an ongoing basis and scrutinised at the highest levels of the company.



While the level of reporting – giving an accurate global evaluation of all operations – is new, the very practical endeavour of locally monitoring and reporting the sustainability of Skretting's processes has been an important aspect of most OpCos' work for many years, explains Hilde Roald, Production Director within the Global Salmon & Fish Feed Southern Europe Business Unit.

Nevertheless, one of the main benefits to come from the group-wide reporting process is the data that is relayed back to the OpCos via Nutreco's Sustainability Platform, while the Sustainability Dashboards provide the ability to benchmark performance against other OpCos. Once new dashboards are received, the Global Production Team, headed by Roald, will go through the data and discuss appropriate next measures.

"This platform adds significant value because the data and the way it is delivered makes it much easier for the team to discuss practical ways in which to reduce operational impacts like energy or water use," she says.

Efficiency enhances sustainability

The data that is gathered, processed and then re-distributed to OpCos is also being used to set progressive targets. But from a production perspective, the main focus is on the economics of Skretting's operations and finding ways to make a positive contribution to our sustainability KPIs.

"Efficiency is essentially the key aim for all operations; and when you focus on efficiency you are also focusing on sustainability," says Roald.

"In operations we are very practically focused. For example, we look at how much energy per tonne is being used by a drier and how that can be reduced. We focus on the practical tasks and explore the potential to reduce energy use step-by-step. That is the only way to achieve it – through continuous improvement."

Moving forward, the Nutreco Sustainability Platform is concentrating on the crucial task of enabling all OpCos to reach a level whereby they are correctly reporting the impacts of their operations – presenting rich data that can be incorporated in the benchmarking process.

"As one of the first Business Units to implement the monitoring and recording of the five sustainability KPIs, Global Salmon & Fish Feed Southern Europe's dashboard is now showing us best-practice. Progress will be overcoming the inherent differences of all our OpCos around the world to move them nearer to best-practice too. If we were all able to progress closer to best-practice, we would be in a very strong position," says Roald.

To enable practical actions to be taken, the Global Production and Sustainability teams have been striving to ensure that the required data is presented in such a way that OpCos recognise their own numbers. The purpose of this is to enable the exploration of any variances in the figures reported compared with the same period of time in the previous year. Therefore, while aquaculture can be very seasonal, Skretting is able to analyse specific months or quarters over a period of years.

Indeed, one of the primary roles of the Global Production Team is to check to make sure variances are correctly reported and to see if there are any reasons why the performance has changed.

"Locally, some OpCos have been working on this for many years, but the function enabling the global comparison of OpCos adds another dimension. This is especially valuable for those operations with only one plant – giving them trustworthy references that they didn't have before; not to mention, the practical support to make efficient improvements in their operations," says Roald.



Safety first

Ensuring all of our workplaces around the world are safe environments in which to conduct our operations has always been a top priority for Skretting and parent company Nutreco. Indeed it is in everyone's best interest to ensure that health and safety is deeply rooted across the business as it provides the platform for sustainable growth. Conversely, any operations that unwittingly neglect them will significantly heighten the risk of injury, increased costs and reduced profitability.



Effective training is one of the most important tools in establishing a strong culture of health and safety, explains Harm Teunissen, HSE Director at Nutreco.

"Generally speaking, people everywhere take health and safety for granted and that is the inherent risk. If they are not aware day-by-day, hour-by-hour of the potential risks around them then the risk levels increase accordingly. In life, people must show awareness of potentially hazardous situations. The same is true of our factories, which is why we aim to ensure our people are well trained and know exactly what they are doing.

"Nutreco is a professional organisation, and being professional requires us to be in control of what we are doing in terms of our operations and our plants. The most productive and sustainable way to achieve that aim is through collaboration and interaction with our people. As such, awareness is of paramount importance across the company and at all levels – from top management to the factory floor," says Teunissen.

Overcoming cultural differences

Ways to make workplaces safer and healthier for all Nutreco employees continue to be identified and the reduction in the number of injuries and lost time incidents (LTIs) confirm the business is heading in the right direction. However, for a global company like Nutreco, there is no specific one-size-fits-all when it comes to making our operations safer and healthier places in which to work as there are multiple differences between established and emerging markets. For example, some countries traditionally have a lot of hierarchy in place and lines of communications are often structured differently, which need to be factored in to any solution. From an operational standpoint, though, certain practices such as the manual carrying of large, heavy bags of raw materials are still commonplace in some emerging markets, while long being unacceptable in established operations.

Nutreco has made some good progress in addressing such areas in recent years,

which has been helped by the introduction of more mechanisation and implementing better-organised operations. The investment in establishing much more sophisticated plants, including the construction of new facilities, has undeniably heightened this progress, says Teunissen.

"In Ecuador, for example, we are building plants to not only replace current facilities but also to expand our production volume and business in the Latin America region. We have also recently completed a new fish feed plant in Egypt; we are currently building one in Vietnam; and we have plans for one in Nigeria. This shows that we are investing heavily in the practical aspect of growing capacity, but at the same time, there is also a lot of attention being placed on these facilities' organisational structures – the people – to better coordinate the operational side of these businesses, with a strong focus on the health and safety elements."

Abiding by the same standards

While the solutions applied to Operating Companies and Business Units can and do differ from those used elsewhere in order to maximise their effectiveness and relevance to each, Nutreco ensures that the same robust standards are applied globally. This is achieved through the regular audit of all operations – a process that identifies any health and safety shortcomings or "non-conformities" and provides an appropriate timescale to rectify each. All non-conformities are monitored through a live reporting system.

"These efforts are very much appreciated by all of our auditees because they recognise that we are helping them to improve their operations. In our opinion, health and safety and good operations go hand-in-hand: We don't want to have waste, we don't want accidents, we don't want things to go wrong; instead what we do want is to have optimal professional operations. That includes health and safety," he says.

Each operation is also subject to a rating programme, where their health and safety compliance is scored and reported. To assist these processes, each operation is organised in such a way that it has an individual responsible for health and safety. There is also a Health & Safety Executive Network, comprising some 20 representative members from across the business globally, which physically meets every year and interacts as much as possible beyond that meeting to address the topics that head the current agenda.

"Safety depends on a number of things. Not least, how things are organised, how people are trained, whether the plant is following the clearly defined standards and the provision of comprehensive inspections. A combination of the entire package delivers a certain safety level, but awareness is key," says Teunissen.



Karina Briones-Vinueza



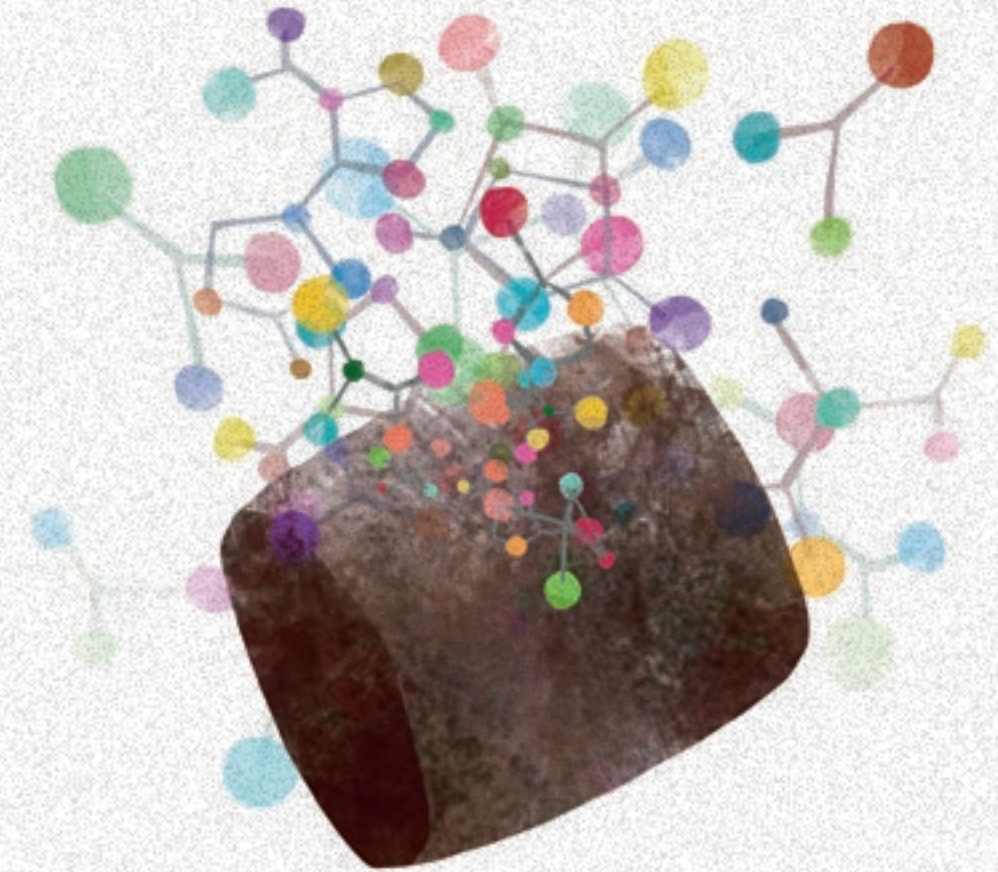
Nina Flem

Securing animal and human wellbeing through knowledge sharing and best practice

Feed contamination can represent a significant threat to animal health and wellbeing. It is also not limited by geography; indeed, it is possible for a feed contamination event that occurs in one region to affect the health of consumers living on the other side of the world.

Because safeguarding both animal and human health is a fundamental part of our sustainability programme, Skretting and Nutreco have implemented dynamic quality assurances and controls at every stage in all of our production cycles in order to minimise our exposure to risks and to preserve our industry leadership in the aquaculture feed market.

Nutrace® is Skretting's company-wide management programme that ensures feed-to-food safety and quality. It has been developed in such a way that all potential risks associated with aquaculture feed production are minimised and any irregularities are quickly found and acted upon. This unique concept allows our customers and end-consumers to have full confidence with regards to the feeds used by the aquaculture industry.



“Over the years, the family of Skretting companies has grown as we have acquired new companies. Before being able to put the Skretting brand on their feedbags, new companies must implement the Nutrace feed-to-food safety system. As a global company, we feel we can contribute to building better competence and implement robust routines and procedures to safeguard health and safety related to our products. Sharing of best practices and employee training are core aims when a new company becomes member of the Skretting family,” says Nina Flem, Quality Manager at Skretting.

The establishment of Skretting Ecuador in September 2016 was milestone event for the aquaculture industry in Latin America. During the three years running up to the launch, Gisis and Skretting worked very closely to unite their forces and to unveil the Skretting brand in Ecuador and Peru, where Skretting has a distribution centre.

Skretting added to Gisis' already significant knowledge and competence in the area of feed and food safety, mostly through Nutrace HACCP (hazard analysis and critical control points) implementation in relation to both human and animal health, explains Karina Briones-Vinueza, Quality Manager at Skretting Ecuador.

“This system, based on risk assessment, provided Gisis with higher levels of quality control on raw materials, finished products and suppliers,” she says.

According to Briones-Vinueza the most valuable outcome from the creation of Skretting Ecuador and the implementation of Nutrace has been the ability to share experiences and best practice with fellow Skretting OpCos.

“This has enabled us to analyse the broad diversity of processes and solutions being deployed throughout the group's different plants and locations, and then to pick the ones that best fit Ecuador's particular circumstances. Subsequently, we have been able to strengthen and improve our internal processes and on-site quality controls.

“As a feed producer, we are an essential component of Ecuador's shrimp farming industry and we have a considerable responsibility with regards to food safety issues. Together, the Ecuadorian shrimp industry – including farmers, feed companies, processors and exporters – has learned a lot about the criteria and requirements that are essential to ensure the best quality products are produced for human consumption, which is essential to capitalise on the new era of opportunities now offered by all of the major international markets,” she says.





Commitment

At Skretting we believe a sustainable future is not viable without the involvement of motivated people. Therefore we are actively engaged with internal and external stakeholders to achieve common sustainability goals. This addresses two UN SDGs.



Majority of population growth over the coming decades is predicted to occur in emerging markets. In order for them to achieve the productivity gains required to feed these additional mouths, they need access to the technology and know how that has enabled farmers in the developed world to produce more from less. Skretting and Nutreco is helping to bridge this gap by investing in community development projects focused on capacity building for small scale farmers in emerging markets. This offers opportunities for shared value by improving the profitability and productivity of the farmers, whilst creating future opportunities for Skretting and Nutreco in these markets.



Given the scale of the sustainability challenges facing the world, it is impossible to achieve progress in isolation. This can only be achieved if partnerships are formed between all segments of society including business, government, NGOs and communities. Collaboration is part of our company values at Skretting and Nutreco and this can be seen through our long term involvement in external partnerships and multistakeholder platforms. This includes our biannual Agri and AquaVision conferences as well as the Pinicoy Project in Chile, the Seafood Business Ocean Stewardship, and our community development projects in Nigeria and Indonesia.



Henrik Österblom

Joining forces to transform the global seafood industry

A key element of Skretting and parent company Nutreco's strategy to build competence in the field of seafood sustainability is to engage with other industry stakeholders to discuss common challenges and to develop effective solutions. In December 2016, we were one of eight influential seafood companies that came together to form the Seafood Business for Ocean Stewardship initiative.

This first-of-a-kind partnership aims to lead global transformation for sustainable seafood production and healthy oceans. Amongst the many important industry issues being addressed by this group is the need to reduce the global extent of illegal, unregulated and unreported (IUU) fishing and the elimination of any products in the companies' supply chains that may have been obtained through modern slavery, including forced, bonded and child labour.

Seafood Business for Ocean Stewardship was instigated by the Stockholm Resilience Centre and is based upon its research that identified Skretting and other keystone actors in the world's seafood industry as well as the opportunity for unified, best-practice ocean stewardship to help transform the sector. It is hoped that sustainable leadership by these keystone actors will cascade throughout the entire industry and enable critical transition towards the improved management of marine resources and ecosystems.

"We were delighted so many companies accepted our offer. This shows that they recognise their role and that they understand how important they are in their efforts to develop and save the world's fish resources," says Henrik Österblom, project leader and Deputy Science Director at Stockholm Resilience Centre.

Participants in the initiative's first dialogue produced a joint statement that outlines their concern about the current and future state of the ocean and also identifies a number of areas that they will address together. In 2017, all eight companies involved will follow up these efforts with discussions on the specific measures to be taken.

"I believe this represents a good start to something which can become important in improving the sustainability of seafood. First and foremost because it is a real global initiative; Secondly, and equally important, it links the challenges in wild fisheries and aquaculture. I look forward to translate our joint commitment into concrete actions," says Knut Nesse, CEO of Nutreco.

For more information about the Seafood Business for Ocean Stewardship initiative visit www.keystonedialogues.earth



GSI membership



Avrim Lazar

Salmon farming is one of the most significant food production success stories of modern times. The establishment of commercial salmon aquaculture didn't begin until the 1970s, but just some 40 years later the global harvest now exceeds 2 million tonnes. Despite its considerable achievements, the industry is not without its challenges, not least meeting the unprecedented demand for the product from a global population expected to quickly reach 9 billion people. To ensure it can continue to expand sustainably, it has become increasingly apparent that greater collaborative relationships must be established across the value chain, making full use of its inherent knowledge and expertise to develop tangible industry-wide solutions.

An important way in which Skretting is helping advance the salmon sector is through its membership of the Global Salmon Initiative (GSI). In partnership, GSI salmon farmers and feed companies have committed to working precompetitively together to accelerate progress towards ever increasing standards of sustainability for the farmed salmon industry, and to driving progressive innovation in the feed sector.

The central mission of the GSI is in many ways the same imperative for everyone, everywhere and in every walk of life for the next 20 years – producing healthy protein at a lower per unit environmental cost in order to feed the fast-growing global population, explains Avrim Lazar of the GSI.

As a feed producer, Skretting is ideally placed to make an invaluable contribution to this overriding objective. "Because salmon grows from feed, so the eco-efficiency with which feed is produced has a huge impact on the eco-efficiency of the way salmon is produced. Therefore, when Skretting improves the formula so that the feed conversion ratio is improved, that has an impact on the sustainability of the salmon and has an impact on our ability to feed the planet responsibly, at the lowest environmental cost. Similarly, when Skretting changes the formula so that we are less reliant on pelagic fisheries, the stresses on an ecological layer in the ocean is reduced, which again improves the ecological footprint and eco-efficiency of salmon production. Efficiency is also improved when Skretting helps producers with the most efficient possible deployment of the feed, and when it comes up with functional feeds – for example, discouraging lice or increasing salmon's natural resilience to challenges," says Lazar.

As well as the imperative requirements to progress environmental improvement and fulfil the need to feed the planet at the lowest possible environmental cost, it is also a core ideal of GSI that any challenges in sustainability will not be due to a lack of moral fibre, but are instead due to the need to solve technical issues.

"GSI is built on the model of sharing and providing the environment for different members to share in the development of solutions," says Lazar. "That is also why we are very grateful that Skretting, the other feed businesses and the farming companies have joined us – because quite often, the easiest way to find a technical solution and accelerate progress is by people from different perspectives working on the problem together."

A particular area to benefit from Skretting's contribution over the past 12 months relates to the sustainability of fish oil and the advancement of viable alternatives. While several solutions have been discussed in recent times – oils from algae, yeast, crops and so on – GSI and its members had become increasingly uncomfortable at the slow progress being made in this field and therefore decided to try and stimulate advancement.

"We could see the sustainability challenge coming at us quite quickly and so with the feed companies we began by making an open invitation to anyone with a potential solution to the oil problem to come and talk to us about the development of their technology."

All of the feed companies and the farmers physically gathered and met with these people and shared ideas, which gave GSI the clearest indication that the solution was out there and that crucially it could be produced to sufficient scale to meet the industry's needs, says Lazar.

Then, to move the project closer to commercial realisation, GSI issued a tender to see whether individuals could produce oil volumes of 100,000 tonnes or more per year at a reasonable cost. There were varying responses to that challenge, at which point the decision was taken to return to the open market process where those parties that submitted credible bids in the tender process were invited to contact Skretting and the other feed companies individually.

"The availability of novel oils in the feed industry has improved significantly because of that strategy, and if it weren't for the cooperation of Skretting we would never have had created that stimulation in the marketplace. It's a classic example of an environmental stress being solved through innovation," says Lazar.

Another activity relates to the long-term concern about by-products being insufficiently retrieved from the fish processing sector, because from an environmental perspective, it is beneficial that these materials are used within feeds wherever possible.

A lot of research focusing on this important area was conducted in 2016, culminating with the commissioning of study by Stirling University on the availability of by-product and how much was being wasted. Essentially, GSI wanted to establish how much protein and how much oil this amounted to, as well as where in the world this wastage was taking place.

GSI recently received the results of that study and is starting to look at how much of it is recoverable and what technology is required to perform those tasks.

"We are in no doubt that this will become a normal part of the feed stream. It has always been there, but huge amounts of it are still being wasted. One of our basic principles is zero waste so looking ahead, this will be an important area for us."

Alongside continued work with novel oils and fully utilising by-products, GSI and Skretting will also further their work on certification standards and establishing a balance between achievability and rigour.

"GSI and Skretting have always been strong believers that standards should set very high bars and at the same time they should invite people to reach those bars. If the bars are too high or unattainable, you don't necessarily get any environmental improvement. Skretting has shown a lot of leadership in trying to find ways to sustain the height of the bar while creating a pathway to it. That work will progress further in 2017," says Lazar.



**BRIDGING THE GAP
TRANSFERRING TECHNOLOGY TO FARMERS AROUND THE WORLD**

Nigeria Catfish Project

Fish represents an important part of the diet of people in Nigeria. Although the country has a significant aquaculture sector, demand for fish still exceeds supply. Therefore, an increase in the production of farmed fish will secure both an affordable and nutritious food supply.

In 2015, Nutreco partnered with Oxfam and two Nigerian NGOs to undertake a one year pilot project to support small scale catfish farmers from around Ibadan in Nigeria. The aim of the project was to increase the productivity, profitability and sustainability of their operations so they could benefit from the economic opportunities in an environmentally sound manner.

A total of 94 farmers participated in the project which took place between July 2015 and August 2016. During this time, a series of training sessions were run by the project partners on topics such as feed management, disease and water quality. A detailed data management system was also developed to enable farmers to collect better data and compare performance overtime.

The project resulted in the adoption of better feeding practices amongst the farmers which improved fish performance as well as water quality. It also advanced the technical capabilities of the farmers and identified market conditions that affect the profitability of farmers. In addition it created an opportunity for networking amongst farmers which facilitated open sharing of information which had not occurred in the past.

The farmers involved in the project were very enthusiastic and expressed a desire to continue in the future. "I have learnt so much during this project in terms of daily record keeping, calculating feed conversion ratio, test cropping and how to disinfect the ponds. My appreciation therefore goes to JDPC and Nutreco for giving me an opportunity to partake in the project" says Nigerian farmer, Dahunsi Olufemi Joshua. As such, Nutreco has decided to extend the project for two years with the aim to further improve and document the profitability and productivity of the farmers.

In the next phase, Nutreco will continue to work directly with farmers and has appointed a dedicated technical manager at our local Skretting Nigeria office to plan and execute the project. "I am very happy to be working on this project and am confident it will deliver positive results for the farmers who take part," says Omoniyi Ajitoni, Project Manager.

AquaVision

For 20 years, Nutreco and Skretting have hosted AquaVision. This multi-stakeholder platform brings together board-level executives, influential public officials and key members of the NGO community to discuss issues facing the feed-to-food value chain now and in the future.

The 11th edition of AquaVision was attended by more than 375 delegates from 35 countries. The theme was 'Meeting tomorrow today' with speakers covering a wide variety of topics including sea lice, fishmeal, human nutrition and population growth. The global megatrend of antimicrobial resistance (AMR) was highlighted by Nutreco's CEO Knut Nesse, as one of the most pressing issues facing the aquaculture industry, with calls for industry to work together to remedy the situation.

Keynote speaker Lord Sebastian Coe urged the industry to increase awareness among young people in order to achieve its goal of feeding a growing population.

"The message needs to be clear, explain what you're doing and why; explain what you can achieve; pose a challenge and place yourself as the solution," he advised delegates.



HIGHLIGHTING THE SUSTAINABILITY ATTRIBUTES OF OUR NUTRITIONAL SOLUTIONS

To ensure that employees are educated about the sustainability attributes of our products and services, an e-Learning module was developed in 2016 to raise internal awareness. This module provides employees with an overview of the major sustainability challenges facing the feed-to-food value chain, and the solutions Skretting and parent company Nutreco is developing to overcome them. It specifically uses the Skretting's Premium FLX and the Trouw Nutrition Healthy Growth Initiative to demonstrate how these can help to improve the sustainability performance of our customers.

In December 2016, the module was made available to 1,500 colleagues from sales, marketing, procurement and general management. We will encourage people throughout 2017 to undertake this e-Learning module.

SKRETTING VIETNAM

Gets kids to school



Shrimp farming in Vietnam often takes place in remote areas where it is difficult for children to access education.

As part of its commitment to support Vietnamese farmers and their local communities, Skretting Vietnam introduced the Kids to School programme, which supports children in low-income families by providing much-needed stationery. This programme was a resounding success and clearly reflects our core company values – Caring and Collaborative for the community.

This is the fifth year that Skretting Vietnam has generously conducted this programme. Nearly 1,500 gift packs and thousands of notebooks were delivered to children in farming areas for the new school year.

Over the past five years, Skretting Vietnam has distributed nearly 7,500 gift packs to low-income children in farming areas. All participants including Skretting representatives, local government officers, customers, teachers and pupils are extremely happy to join in this event.

Ong Van Son, one of Skretting Vietnam's wholesalers in Soc Trang province said, "This programme is so meaningful. We are happy because we could partly support the kids ahead of the start of the new school year in September. Everyone in the region has welcomed the programme. A lot of thanks goes to Skretting for creating this programme."



About this Report

This year, we have taken a different approach to reporting by aligning with the United Nations Sustainable Development Goals (SDGs). These goals define global sustainability priorities and seek to mobilise efforts around a common set of goals and targets. In other words, it is the materiality assessment of global society.

Skretting is the aquaculture feed business of Nutreco. As such, our approach to sustainability and basic policies and procedures are the same as for Nutreco. The Sustainability Report of Nutreco can be found here www.nutreco.com. Skretting's report is aligned with the Nutreco Sustainability Report, but in some areas we highlight information of particular interest for the aquaculture supply chain.



THE GLOBAL GOALS For Sustainable Development



Strategy

Our Mission: Feeding the Future

Our ambition is to contribute to meeting the rising food needs in a sustainable manner. We aim to be the global leader in providing innovative and sustainable nutritional solutions that best support the performance of fish and shrimp. To achieve this goal, we will work towards enabling farmers to double production whilst halving the environmental impact.

Our approach - Nuterra Programme

In 2016, Nuterra – Nutreco's global sustainability programme – was launched to all Skretting companies. It provides the vision and actions needed to ensure we will live up to our responsibilities and ambitions. The programme is made up of three parts: Nuterra Roadmap, Nuterra Standard and Nuterra Product Assessment.

Key stakeholders



Customers

Our customers are companies that produce aquaculture species typically for human consumption as seafood. Our company provides technical assistance through our service team and customer events. Information is made available via our website, customer magazines and we facilitate engagement through global forums, meetings and site visits.



Employees

Our people are important to us. Our company has many programmes to ensure personal development opportunities and a safe and healthy work environment. Feedback from staff is obtained through annual climate surveys and annual performance reviews. We have regular business updates and our internal webpages "Nutranet" provides regular update of events.



Nutreco

As a division of Nutreco, we contribute to annual performance objectives and targets. We engage with Nutreco through our intranet and internal newsletters and relevant updates are often communicated through press releases. The major forum for engaging on sustainability issues is the biennial AquaVision conference.



Suppliers

Our procurement department is actively engaged with our raw materials suppliers on a daily basis. We also have strategic engagement activities and workshops with suppliers and potential suppliers to identify opportunities or improvements within the supply chain. Suppliers are also invited to take part in the AquaVision conference.



Industry associations and researchers

Being the link between raw material supply and customer demand, we are engaged with stakeholders as industry advisors or participants in applied research often through active research project collaborations or networks.



Government and regulators

We engage with the government through our association with leading industry bodies. Our employees also give advice to government bodies on a variety of issues such as aquaculture feed legislation, issues relating to food safety and general information on the aquaculture industry.



Local community

We aim to be a positive member of the community. Our engagement strategy is focused on supporting and attending local community events and initiatives that are in alignment with our company's business strategy.

Sustainability Governance

Sustainability is the responsibility of Nutreco's CEO, who is directly supported in this role by the Nutreco Sustainability Platform (NSP). The NSP team is led by the Corporate Sustainability Director in Nutreco, with support from four other members who represent the different divisions of the Nutreco, among them Skretting. NSP meets monthly and is tasked with designing and executing the sustainability strategy. Working together with other departments, this strategy translates into actions that are implemented throughout the global business. For more details see Nutreco sustainability report.

Ethics and Legal Compliance

The company uses both internal resources and external consultants to ensure full compliance with all legislation governing our activities.

All employees agree to abide by Nutreco's Code of Ethics during the employee induction process. A large number of Skretting employees have undertaken a training module on Nutreco's Code of Ethics. It is a goal that all employees should receive this training.

To read Nutreco's code of ethics visit the Nutreco website - About Us - Code of Ethics <http://www.nutreco.com/en/Corporate/Corporate-Governance/>



The values we live by

Skretting follows a global culture that is open, in which all our people care deeply about what they do, about each other and the environment in which they work. To fulfil our Mission of 'Feeding the Future', we adhere to four clearly defined core values – Innovative, Caring, Collaborative and Capable – which are adopted throughout the Nutreco group.

Materiality

The materiality issues for Skretting are the same as for Nutreco. For more details on materiality issues please refer to the Nutreco Sustainability Report.

Material issues we regard particular important for the aquaculture and aquafeed sector are:

- Marine raw materials and overfishing
- Slavery and human rights (in the seafood sector)
- Antibiotic use
- Raw material scarcity
- Precision farming and efficiency
- Animal health
- Biodiversity
- Climate change

Workforce

Skretting	Nb employees	%
Total	2905	
Male	2450	84
Female	455	16

Procurement Practices

Skretting and parent company Nutreco focus on supplier engagement through the group-wide Supplier Code of Conduct (<http://www.nutreco.com/globalassets/nutreco-supplier-code-of-conduct.pdf>). The Supplier Code of Conduct is applicable to all our suppliers and provides clear guidelines for how we expect them to act in the areas of Integrity and Business Conduct, Human Rights, and the Environment. We wish to use our influence to encourage suppliers to adhere to the Supplier Code of Conduct and to request their suppliers to do the same, supporting us in making a positive contribution to using sustainable raw materials.

Raw material usage – marine ingredients

The origin of fishmeal and fish oil is mainly from small pelagic fisheries and from by-products when fish is processed for human consumption. The most important species and fisheries are listed below.

Dependent upon the exact species, fisheries and country of fishery, many of the fisheries listed below are approved fisheries under the IFFO Responsible Supply standard scheme.

Species	Comment
Sardine	Mainly whole fish, multiple species and fisheries
Anchovy	Mainly whole fish, multiple species and fisheries
Blue whiting	Mainly whole fish
Tuna Trimmings	Multiple species and fisheries
Sprat	Mainly whole fish
Menhaden	Mainly whole fish, multiple species and fisheries
Herring	Whole fish and trimmings, multiple fisheries
Capelin	Whole fish and trimmings, multiple fisheries
Sand eel	Mainly whole fish
Jack mackerel	Whole fish and trimmings, multiple fisheries

The aquafeed industry has attracted significant attention with regards to its use of fishmeal and fish oil sourced from finite supplies of wild capture fish. Skretting has made significant progress towards reducing its reliance on these materials through investment in R&D that has facilitated the use of alternative raw materials. Although feed volumes have been increasing over the last years, the average level of fishmeal in the diets has declined. Average fish oil inclusion in diets has been relatively constant in recent years. This is mainly due to the fish and shrimp farming sectors' reluctance to decrease levels of fish oil in the diets due to the positive effects on human health of long chain omega-3 fatty acids.

Year	Total Feed	Fishmeal inclusion	Fish oil inclusion
2013	100%	17%	8%
2014	105%	16%	8%
2015	127%	14%	9%
2016	122%	15%	8%

Biodiversity

According to our criteria, marine products from fish processing must not come from threatened species. Suppliers shall not process species or by-products from species that are classified as “Critically Endangered” or “Endangered” in the IUCN Red List. Species that are listed as “Vulnerable” are not eligible for use as by-product, unless for fisheries from a discrete sub- population assessed to be responsibly managed. Regarding marine ingredients processed from whole fish, stricter requirements apply regarding fishery management.

Environment (energy, water, emissions, effluents and waste)

In 2016, all Skretting Operating Companies reported on their energy use, carbon emissions, water usage and waste generation. Also labour related injuries are reported. For more details, we refer to the Nutreco Sustainability Report.

Certification to third part verified standards

Operating Company	Certification and % of production volume certified
ARC	ISO 9001 (100%), ISO 17025 (100%)
Australia	ISO 9001 (100%), ISO 14001 (100%), GMP+ (100%), HACCP (100%)
Canada	ISO 9001 (100%), HACCP (100%), USDA (100%), BAP Feed Mill (33%)
Chile	ISO 9001 (100%), ISO 14001 (100%), HACCP (100%), GlobalGAP (100%), OHSAS 18001 (100%), BAP Feed Mill (100%)
China	ISO 9001 (100%)
Ecuador	GlobalGAP (100%), Naturland Organic, European Union organic and Quality Certification Services (QCS) organic
Egypt	ISO 9001 (100%), ISO 14001 (100%), OHSAS 18001 (100%), ISO 22000 (100%)
France	ISO 9001 (100%), HACCP (100%), GMP+ (48%), Label Rouge
Italy	ISO 9001 (100%), ISO 14001 (100%), HACCP (100%), GlobalGAP (100%)
Japan	ISO 9001 (100%)
Norway	ISO 9001 (100%), ISO 14001 (100%), GlobalGAP (100%), ISO 22000 (100%)
Spain	ISO 9001 (100%), ISO 14001 (100%), GlobalGAP (100%), OHSAS 18001 (100%), ISO 22000 (100%)
Turkey	ISO 9001 (100%), GlobalGAP (100%), ISO 22000 (100%)
UK	ISO 9001 (100%), UFAS (100%), Naturland Organic
USA	USDA (100%)
Vietnam	ISO 9001 (100%), GlobalGAP (100%)

GRI index

General Standard Disclosures		
Disclosures	Description	Page number
STRATEGY AND ANALYSIS		
G4 - 1	Message from MD	Fulfilling on our Mission, page 2-3
G4 - 2	Key impacts, risks & opportunities	Reflected in Skretting Global's risk management approach
ORGANISATIONAL PROFILE		
G4-3	Name	Skretting - registered tradename for aquafeeds owned by Nutreco
G4-4	Operations	Feeds for aquaculture species
G4-5	Head Office	Stavanger, Norway
G4-6	Locations	See map page 6-7
G4-7	Legal form	Part of Nutreco, privately-owned by SHV Holdings
G4-8	Markets and customers	See map page 6-7
G4-9	Scale of operation	See map page 6-7
G4-10	Workforce	Workforce, page 46
G4-11	Collective agreements	Not reported
G4-12	Supply chain	Overview value chain, page 4-5
G4-13	Business changes	Not reported
G4-14	Precautionary principal	Reflected in Skretting Global's risk management approach
G4-15	Charters	n/a
G4-16	Memberships	See Nutreco report
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES		
G4-17	Organisation	See Nutreco report
G4-18	Report content	Material issues, page 46
G4-19	Material issues	Material issues, page 46
G4-20	Scope	Material issues, page 46
G4-21	Scope	Material issues, page 46
G4-22	Restatements	No restatements
G4-23	Changes	No significant changes in scope
STAKEHOLDER ENGAGEMENT		
G4-24	Stakeholder list	Key Stakeholders, page 44
G4-25	Stakeholder selection	Key Stakeholders, page 44
G4-26	Stakeholder engagement	Key Stakeholders, page 36-39
G4-27	Stakeholder concerns	Not specifically reported
REPORT PROFILE		
G4-28	Report period	1 January to 31 December 2016
G4-29	Last report	Skretting Sustainability Report 2014 (April 2014)
G4-30	Reporting cycle	Annual (2015 report missing)
G4-31	Contact	Queries or comments, please email trygve.berg.lea@skretting.com
G4-32	GRI Compliance	The report contains Standard Disclosures from the GRI guidelines
G4-33	Assurance	Not externally assured (Nutreco report partly assured)
GOVERNANCE		
G4-34	Governance	Corporate governance, page 45
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G4-56	Ethics and values	Ethics and legal compliance, page 45

DMA and Indicators		
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CATEGORY: ECONOMIC		
MATERIAL ASPECT: ECONOMIC PERFORMANCE		
G4-EC-1	Financials	Not within scope of this report
MATERIAL ASPECT: PROCUREMENT PRACTICES		
G4-EC-9	Local procurement	Raw material usage, page 46
G4-FP-1	Compliant sourcing	Raw material usage, page 46
G4-FP-2	Certified materials	Raw material usage, page 46
CATEGORY: ENVIRONMENTAL		
MATERIAL ASPECT: MATERIALS		
G4-EN-1	Materials used	Raw material usage, page 46
MATERIAL ASPECT: ENERGY		
G4-EN-3	Energy used	See Nutreco report
G4-EN-6	Reduction of energy	See Nutreco report
MATERIAL ASPECT: WATER		
G4-EN-8	Water usage	See Nutreco report
MATERIAL ASPECT: BIODIVERSITY		
G4-EN-14	IUCN Red List	Species origin and IUCN Red list, page 47
MATERIAL ASPECT: EMISSIONS		
G4-EN-15	Scope 1	See Nutreco report
G4-EN-16	Scope 2	See Nutreco report
G4-EN-19	Reduction of emissions	See Nutreco report
MATERIAL ASPECT: EFFLUENTS AND WASTE		
G4-EN-22	Water discharge	See Nutreco report
G4-EN-23	Waste type, disposal	See Nutreco report
G4-EN-24	Spills	Not specifically reported
CATEGORY: SOCIAL		
SUB-CATEGORY: LABOUR PRACTICES AND DECENT WORK		
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY		
G4-LA-1	Hires and turnover	Not specifically reported
MATERIAL ASPECT: EMPLOYMENT		
G4-LA-6	Injury rate	See Nutreco report
MATERIAL ASPECT: TRAINING AND EDUCATION		
G4-LA-9	Training hours	See Nutreco report
G4-LA-11	Performance reviews	See Nutreco report
SUB-CATEGORY: HUMAN RIGHTS		
MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT		
G4-HR-10	Supplier screening	See Nutreco report
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MATERIAL ASPECT: LOCAL COMMUNITIES		
G4-SO-1	Engagement program	Community engagement, page 40-41
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