



nutreco

**Nutreco
Sustainability
Report 2019**

Join us on our
continuing journey

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Introduction

This year, more than ever, sustainability has become a non-negotiable part of how we do business at Nutreco. We are constantly evolving how we integrate it into the way we work, but we feel we have made a lot of progress already and we are pleased to report on our recent achievements and outstanding challenges. This sustainability report is an acknowledgement of everyone who helps make sustainability a significant ongoing topic and focus within our operations and activities.

From our point of view, sustainability involves a complex mix of different challenges, sometimes linked to environmental impacts, sometimes social equality, and at times even profitability. The priorities within our businesses vary around the globe, depending on factors such as community resources, social pressures and local practices. This is because, at Nutreco, we embrace the individuality of our Operating Companies (OpCos). Throughout this report, we share sustainability initiatives carried out in unique ways in all our markets, to drive change and unlock new possibilities where it matters. These are the many ways we show our commitment.



At the end of 2019, Skretting Italy employees were gifted a bottle with Green Tips attached, inviting everyone to rethink their habits and reduce our environmental impact in the workplace.



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Sustainability is at the heart of how we deliver on our mission of Feeding the Future. This year, we are placing even more focus on local efforts that help us reach our sustainability goals – and sharing inspiring stories that show our people's commitment.

About this report

Across the world, we saw more focus during the year on the importance of agriculture and land management in reducing or mitigating climate change, partly as a result of the 2019 report from the Intergovernmental Panel on Climate Change (IPCC) on the impact of land use on climate change. With forest fires on an unprecedented scale raging through the Amazon and Australia, deforestation became even more of a focus area worldwide.

In last year's report, we adopted a candid narrative and communicated through an online platform that allowed us to deliver a more cohesive and transparent message around sustainability at Nutreco. This new format was nominated for Best CR & Annual Report at the Digital Communication Awards. Our Corporate Sustainability Director, José Villalón, also received a UK-accredited edie Sustainability Leaders Awards nomination for Sustainability Leader of the Year 2019, for the third year in a row.

This year again, we will focus on delivering online our core content around:

- | | |
|--|---------------------------------------|
| 1. Good citizenship within our Operating Companies | 4. Supporting our communities |
| 2. How we create value | 5. Partnering across the supply chain |
| 3. Sharing our dilemmas | 6. Operating sustainably - every day |
| | 7. Assessing our performance |

This Report is in compliance with our ongoing reporting under the Global Reporting Initiative (GRI) Standard for core reporting. We continue to report on our 2016 commitment to the United Nations Global Compact and the progress we have made on eight of the United Nations Sustainable Development Goals (SDGs). See Progress against the SDGs for a summary below, and more detailed descriptions throughout the report, marked by the SDG icons.

We continue to comply with last year's policy change to seek independent, third-party, reasonable assurance every third year on all our sustainability claims and data; during the intermittent years, including 2019, Sustainalize has once again been engaged to have a critical look at our sustainability data and our report's content. This will allow us to drive continuous improvement in our processes and continue to independently verify accuracy.

We are grateful for your feedback during the year, and we hope you enjoy reading about the sustainability journey we took in 2019. It is our belief that improvement never stops – and your input is key to helping us do better.

Progress against the SDGs

In this year's report, we describe our progress on each of the eight Sustainable Development Goals (SDGs) that we focus our efforts on by indexing the corresponding SDG icons to the chapters in the report.

SDG	Nutreco objective	Progress	Explanation
	By 2020 , we will contribute to a 50% reduction in antibiotic use in Chile through our involvement in the Pincoy Project.	75%	75% achievement made by 2018; target continues through 2020. Fish remain in water so final results not yet available.
	By 2020 , we will have a portfolio of examples from farmers who have reduced their reliance on antibiotics through the implementation of our Healthy Growth initiative.	100%	Arguably lacking a measurable target but our portfolio of companies includes 60% Sada (Nutreco Iberia) chicken being free of antibiotic use.
	By 2020 , we will have a total of ten Community Development Projects in emerging markets that transfer knowledge and best practices to subsistence farmers.	100%	Nutreco “re-scoped” from 10 to six Community Development Projects. See our Supporting our communities chapter. The sixth project on Indonesian dairy was closed out in 2017 after its three-year maturity.
	By 2020 , we will have Nuterra Product Assessments for at least four of our new global products (out of a total of six).	100%	Four Product Assessments were conducted; however, Nutreco concluded that this initiative did not offer the anticipated value to customers, so it was discontinued.
	By 2020 , we will launch a Nutreco-wide efficiency programme to encourage OpCos to reduce energy and water consumption.	0%	This goal has been postponed. In 2020, Nutreco is committing to and implementing Science Based Targets-level energy reduction targets in its operations.
	In 2017 and beyond (through 2020), we will continue to monitor, record and encourage operational action to reduce the impact in our five-KPI monitoring programme across all Nutreco companies in scope.	100%	Refer to the Operating sustainably everyday chapter of this Report for further details.
	By 2020 , we will implement a multi-stakeholder fishery improvement project in Peru together with our industry and government partners.	100%	Refer to the Our partnerships chapter of this Report for further details.
	By 2020 , we will successfully complete the fishery improvement project in Peru.	64%	Refer to the Our partnerships chapter of this Report for further details.
	By 2020 we will contribute to the development of an industry-based solution to reduce deforestation associated with the primary production of crops.	75%	Nutreco is on the Steering Committee of the Statement of Support to Cerrado and one of three companies to commit funding to the International Fund for Cerrado. This initiative has faced obstacles due to political sensitivities in Brazil and the payment for environmental services (to not convert forest to cropland) is temporarily delayed to 2020.
	By 2020 we will be functionally engaged with external partners and platforms addressing specific sustainability issues in Nutreco’s value chain.	100%	Refer to the Our partnerships chapter of this Report for further details.



Our strategy



2019 was a pivotal year for Nutreco. We reached the end of our Vision 2020 sustainability strategy and developed our new Nuterra RoadMap 2025 strategy, which will be published on our website in the second quarter of 2020.

RoadMap 2025 came together through the six-step process outlined below. We will roll it out to divisions and OpCos across Nutreco in the second quarter of 2020 through a series of webinars, internal video tutorials, on-site workshops and train-the-trainer sessions with Nuterra Champions around the world.

Process



*Executive Committee



Our approach



While our Vision 2020 strategy formally ended in January 2020, our overall approach to managing sustainability remains unchanged. Our RoadMap 2025 sets our ambitions for the next five years and outlines specific and measurable targets. It is our statement of purpose, an aspirational list of aims that include our commitment to source sustainable ingredients, make manufacturing more efficient and develop products that address environmental concerns as well as our responsibilities to our associates and our communities, everywhere we operate.

We will monitor and measure our progress over the next five years through our internal tool, the Nuterra Standard, which has a two-fold purpose. The first is to tell us where we are on our sustainability journey through a self-assessment that results in a percentile score (based on 100%) of our progress towards our 2025 targets. Perhaps more importantly, our managers can use the self-assessment results to observe where they need to prioritize efforts to improve and make progress to attain 100% completion by 2025. This process enables us to systematically manage our sustainability goals.

2019 Nuterra Standard

This is the last year Nutreco will report according to the Nuterra Standard for our Vision 2020 strategy. Next year, we will move on to our new Nuterra Standard for RoadMap 2025. Below, you can see the comparison in progress between our 2018 and 2019 results.

Overall, we increased our Nutreco-wide score by two points, or 2.4%, in 2019, a small improvement compared to the previous year. A partial explanation for this is that the Vision 2020 development process did not include participation by a broad sample of business managers and functional directors across Nutreco. As time progressed, issues that we did not achieve broad agreement to address were left behind. In addition, some OpCos did not update their scores this year; because of parallel challenges, it was deemed that progress along Vision 2020 was not a priority. The shortfalls of our Vision 2020 process ultimately led to the development of our six-step process, which reflects much broader engagement and participation across Nutreco. Many OpCos also demonstrated their commitment to environmental and social issues in ways that are not always captured or measurable in the self-assessments. Some of these have been highlighted in sidebars to this report.

Improvements at Skretting mainly related to operations and level of commitment. An OpCo-focused evaluation showed that Norway and Australia, which serve the advanced salmon markets, had the best performance and the highest scores within Skretting. The whole value



Skretting Ecuador collaborated with others to devise a circular strategy to use the waste from polyethylene bags to make new plastic planks for water retention in shrimp pond weirs that last five times longer than traditional wooden ones.

chain in these regions is able to respond well to the sustainability challenges reflected in the Nuterra standard. Trouw Nutrition also made progress in operations, but fared best in commitment. Trouw Nutrition Brazil made the most progress this year of all the division's OpCos, while Trouw Nutrition Germany again showed the highest overall performance. Both are actively engaged in working with stakeholders in markets where awareness around specific issues is high.

	Ingredients		Operations		Nutritional Solutions		Commitment		Nutreco overall	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Skretting	81	81	79	81	90	90	80	87	83	85
Trouw Nutrition	85	86	80	82	89	89	79	81	83	85
Nutreco overall	83	84	80	82	90	90	80	84	83	85



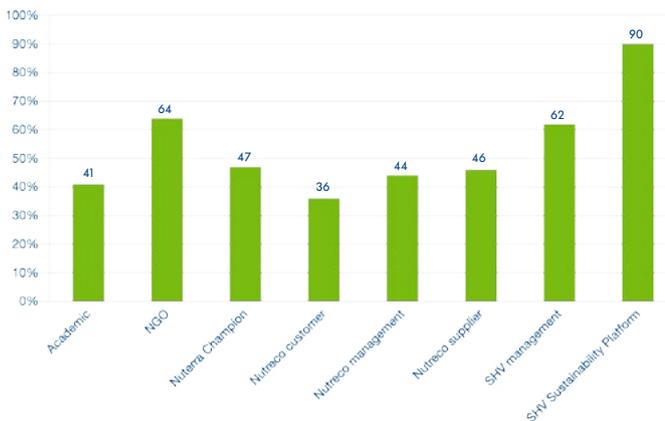
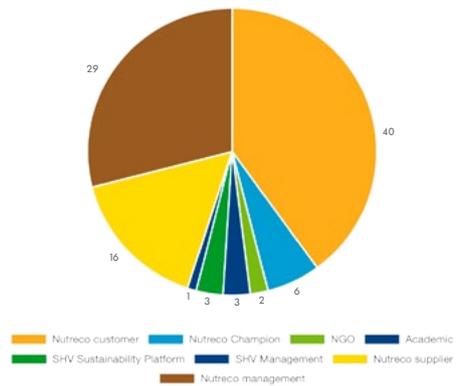
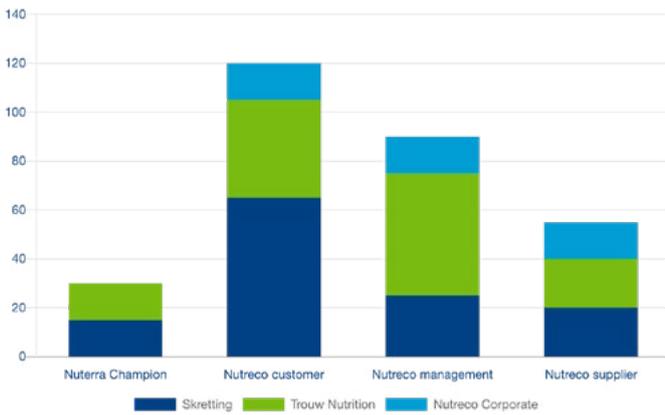
Materiality

In the second half of 2018, we performed a materiality assessment, based on 293 responses we received to a questionnaire sent to 700 stakeholders (a 42% participation rate). Of these responses, 35% were from internal stakeholders and 65% from external, of which 40% were Nutreco customers. NGOs, academics, suppliers and management were also represented. See a demographic analysis of participants below.

Results – stakeholder overview

The questionnaire was sent to 700 stakeholders and we received 293 responses (42%). Of these, 35% came from internal stakeholders and 65% from external.

Respondents by stakeholder group

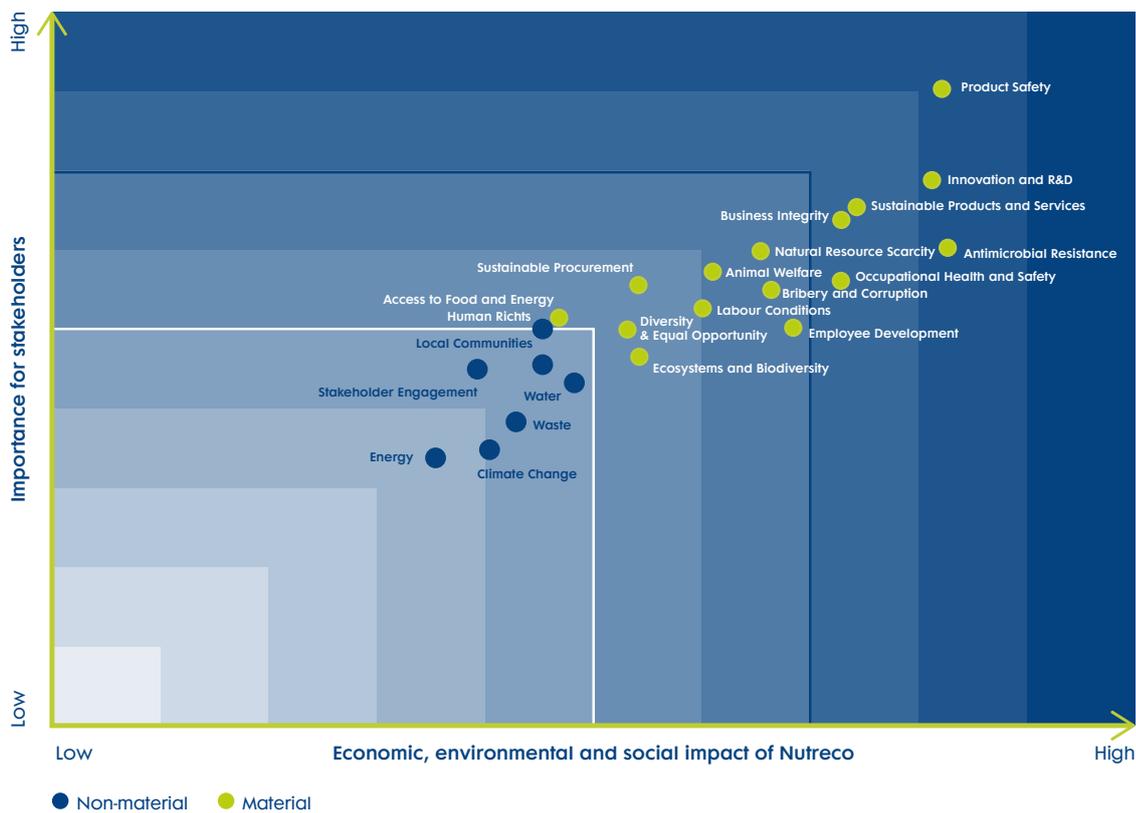


We have based our new RoadMap 2025 on this materiality assessment, which addresses the major issues perceived by our stakeholders to be important or to be issues we can have influence on due to our position in the food value chain. The materiality assessment does not reflect whether an issue is material for society. In other words, a low material score on issues such as water use, waste generated or energy does not mean that these issues are not important for our planet, but rather that stakeholders do not believe Nutreco has a potentially game-changing role in mitigating them. For example, we do not use enough energy or water to be a major influencer on these impacts.

What surprised us was the low scoring we saw on issues such as climate change. Our assumption is that respondents did not consider Nutreco’s influential role in the climate change impacts of its suppliers (the extraction of commodity feed ingredients) and customers (farmers) and only considered Nutreco’s manufacturing footprint impact on climate change, which is in fact, relatively low. Nonetheless, at Nutreco, we assume our role as a good corporate citizen to responsibly address even issues with low materiality.

Below are the results of our materiality assessment, which uses a scale of 1.0 to 4.0. If an issue scored less than three (3.0) we arbitrarily judged that, though it may be important, Nutreco’s role in it is non-critical (in comparison to other industry sectors); issues scoring between 3.0 and 3.4 were considered important and material to the stakeholders; and issues scoring greater than 3.4 were considered highly important and highly material for stakeholders. This importance highlights the areas where Nutreco should prioritize action.

Though we will address all issues highlighted in our materiality assessment, we will focus our resources on having a transformational impact on the highly material issues.



Organizational divisions

Nutreco is comprised of two divisions.

Skretting is the world leader in the manufacture and supply of aquaculture feeds, making it an essential link in the feed-to-food chain. The division is recognized for its commitment to sustainability and has a broad and diversified species offering (over 60 species).

Trouw Nutrition is the global leader in innovative feed specialities, premixes and nutritional services for the animal nutrition industry. Trouw Nutrition provides species-specific nutritional solutions consisting of feed concepts, products and nutritional know-how, with a focus on dairy, beef, pork and poultry production.

NuFrontiers is the dedicated investment arm of Nutreco that identifies, develops and invests in next-generation breakthrough innovations throughout the protein value chain.

For additional detail see **Nutreco brands, customers and suppliers**.



Our value chain



€4.2 billion
direct spend



4,150
suppliers

75%
*of our spend
is reported
automatically

Of that
85.9%
has committed
with signatures

Producing
9.5
million tons
of product



Operating in
40
countries



12,100
employees

104
plants

78 Trouw Nutrition
26 Skretting

8,314
Trouw Nutrition
3,519
Skretting
267
Corporate

Our brands

trouw nutrition
a Nutreco company

SKRETTING
a Nutreco company

1,634
Asia Pacific
450
Africa
5,797
Europe
2,148
North America
2,071
South - & Central America



73%
Male
27%
Female

Operations KPI changes 2018-2019

⚡	Energy	-1.1%
CO ₂	CO ₂	-0.5%
💧	Water	-8%
♻️	Waste	-5.9%
🌳	LTI	-28%

Sharing our dilemmas

- Legal deforestation
- Pre-competitive platforms
- Trade-offs of formulating
- Letter to Government

Collaboration with multi-stakeholder partnerships

SeaBOS

Dealing with relevant big issues in seafood sustainability

Pincoy

Measurable reduction in antibiotic usage in farmed salmon

Community projects & development

Nigeria	485 Small farmers 190 Access credit facilities
Zambia	40 Small farmers 45% Are women
Guatemala	50 Families 68% Income growth
Vietnam	100 Small farmers
Brazil	47 Small farmers

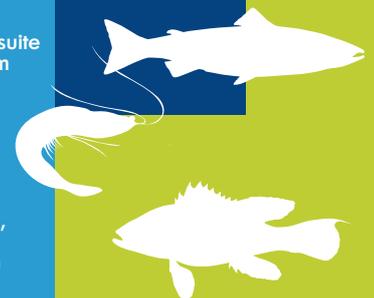


AquaVision

Bringing together over 400 c-suite food and feed executives from

40 countries

to network and discuss innovation. Former Secretary-General of the United Nations, Ban Ki-moon as a keynote speaker. The next AquaVision is scheduled for 2020 (TBD)





Nutreco brands, customers and suppliers



Market

- Trouw Nutrition is the #2 premix producer globally, with a #1 position in Europe and Canada.
- In Iberia, Trouw Nutrition holds a #1 position in compound feed and a #2 position as a poultry producer

Presence

- 78 plants globally with strong market presence in Western Europe, Central and Eastern Europe, the Middle East and Africa (EMEA), Asia, Canada, the United States and Latin America

Customers

- Feed compounders, integrators, distributors, farmers, companion animal industry, retail, wholesale, food industry and pig meat processors

Suppliers

- Producers of grains, vegetable proteins, land animal products, amino acids, trace elements and minerals, vitamins, dairy products, vegetable oils, preventive animal health products and organic acids



Market

- Skretting is the #1 salmon feed producer and the #3 shrimp feed producer globally

Presence

- 26 plants around the world including in Norway, Chile, Asia, Australia, Canada and Ecuador
Joint ventures in Honduras, Nigeria and Zambia

Customers

- Fish and shrimp farmers

Suppliers

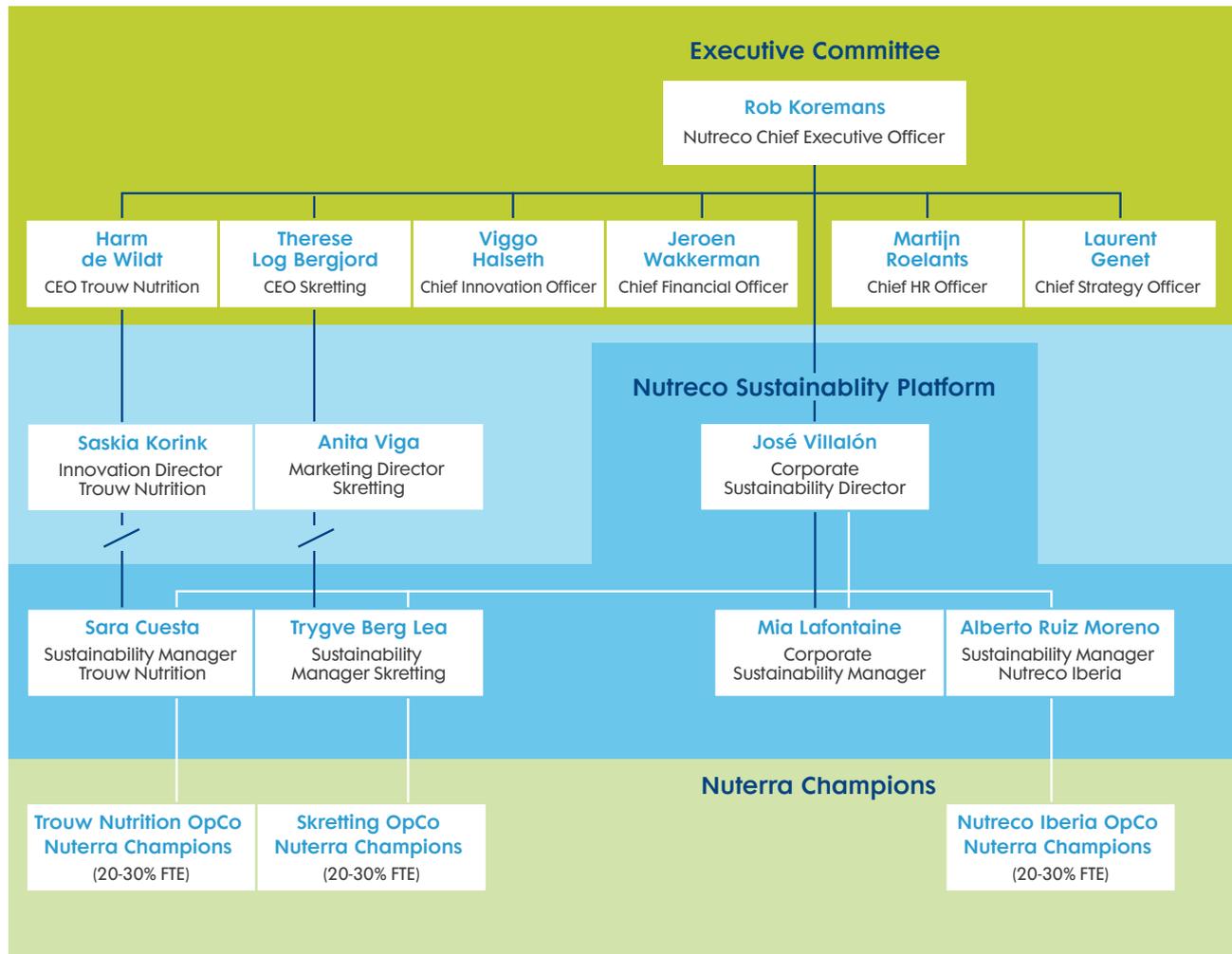
- Producers of marine ingredients, vegetable proteins and vegetable oils, among others

Nutritional solutions

- Nutreco's unique combination of products, services and models are designed to help farmers boost their productivity and support animal health. By doing so, we address two of the UN SDGs.

Sustainability governance

The Nutreco Sustainability Platform meets on a monthly basis and governs sustainability policy within Nutreco. The Platform continues to have broad representation from the business, with five members (see diagram above). Typically, sustainability governance begins when the NSP develops sustainability policy or action through a consensus agreement. After this, the Chair proposes action at the ExCo level. If approved, the policy or action returns to the NSP, to be communicated to the Nuterra Champions and their respective General Managers across all OpCos.





2 How we create value

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NuFrontiers case study 1

- 24 Exploring meat alternatives through our partnership

with Mosa Meat

NuFrontiers case study 2

- 25 Investing in Kingfish Zeeland to boost RAS-produced yellowtail kingfish

Across our company, we are developing innovative products and solutions to help customers achieve better, faster and more sustainable results. We are investing in exciting market developments to help produce more with less.



Trouw Nutrition
case study 1
**One additive,
three ways to
protect health
and food safety**

Foodborne illness and antimicrobial resistance are two major concerns facing the food and feed industries, and we are supporting our customers in tackling both. As swine producers commit to delivering healthy and safe food while moving away from antimicrobials, they have to deal with *Salmonella* and *Escherichia coli* (*E. coli*), two pathogens commonly present on farms. *E. coli* can negatively impact animal performance and salmonellosis is among the most frequently reported foodborne diseases affecting humans worldwide. Contaminated livestock can spread these bacteria through their faeces, increasing the risk of infection.

To support swine producers, Trouw Nutrition has conducted extensive research and developed a new feed additive called Fysal® Solute. It performs three synergetic actions: binding to pathogens to reduce their colonization and multiplication, stimulating the growth of beneficial bacteria and supporting animals' natural defence systems. These modes of action work together to maintain animal health supporting antimicrobials reduction strategies – and securing food safety. The product is part of our Selko® gut health strategy to reduce antibiotics and replace zinc oxide and reduces exposure to *E.coli* and *Salmonella*.

In its first mode of action, Fysal Solute binds directly to *Salmonella* and *E. coli*, reducing the colonization and multiplication of these pathogens in the animal's intestine. In the second mode of action, it stimulates the growth of beneficial bacteria that are naturally present in the gastrointestinal tract. Together, these two modes of action combined push out pathogens and generate a prebiotic effect. The third mode of action is to support animal's natural defence system.

A collaborative study with the University of Murcia in Spain found that Fysal Solute successfully modulated piglets' natural defence system and helped reduce inflammation in the intestine – lowering their exposure to pathogens. In addition, thanks to its combined modes of action the feed additive decreases the pathogens excreted by pigs, reducing other animals' exposure to them. A trial conducted at Trouw Nutrition's swine research centre measured salmonella faecal excretion on days 6, 7, 8, 9, 13 and 16 post-weaning, showing that Fysal Solute, in combination with organic acids, significantly reduced *Salmonella* Typhimurium excretion in faeces versus the control (Figure 1).



In 2019, Trouw Canada changed its palletizing to be shrink-wrap free, not only reducing plastic usage, but also costs, and eventually reducing the capex cost of new production lines.

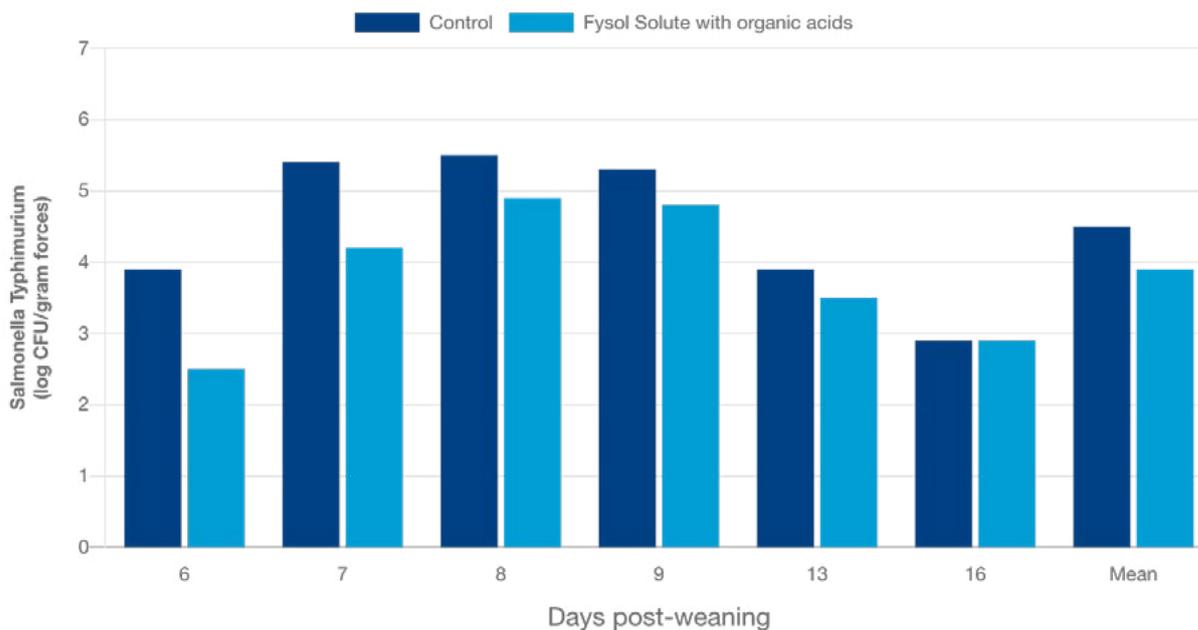


Figure 1 - Salmonella Typhimurium levels in piglets consuming a diet containing Fysal solute in combination with organic acids. Bars with different superscripts within phases differ $p < 0.01$

Results at the farm

During 2019, Fysal Solute was used in commercial farms with very positive results. Gloria Fortunato, DVM, and Sales & Technical Support Swine at Trouw Nutrition Italy, said, “We started using Fysal Solute in 30 to 60 kg pigs on three farms that had issues with *Salmonella*. We combined it with the use of Milkiwean® Vital Start during the nursery phase, which also contains Fysal Solute. In one farm, after approximately two months, we saw good results on *Salmonella* symptoms and no *Salmonella* positive faecal samples. On the second farm, we compared performance against a competitor’s probiotic product, and found that Fysal Solute gave more satisfaction to the farmer. The third farm had *Salmonella* problems for a very long time, with high mortality and long antibiotic treatments, and the farmer saw a big change after using Fysal Solute. In Italy, we are really excited about Fysal Solute; it works, and we trust in it. It gives us more tools for keeping animals healthy without using antibiotics.”

We also saw good results in Germany.

“Farmers are very interested in Fysal Solute and curious to use it. We see that many farms order it again and this is the best feedback we can have. It shows us that farmers are satisfied and see a positive effect in their animals. In a questionnaire sent to test farmers’ experiences with our products, a large majority of farms gave positive feedback about Fysal Solute, reporting that it improved productivity and supported farmers to maintain animal health.

The main benefit with Fysal Solute is, in my opinion, the effect on productivity: better feed intake, resulting in better growth rates. In addition, the positive effects on gut health helps stabilize animals, especially in stressful production phases.”

Christiane Schalk, MSc, and Product Manager Swine at Trouw Nutrition Germany

What is next?

Most of our research so far has been done in nursery and grower pigs, but we are now doing further research to extend the application of Fysal Solute. Based on the findings of an ex vivo study performed with the University of Minnesota in the United States, Fysal Solute compounds seem to have a positive effect supporting *Lawsonia intracellularis*-associated lesions in pigs' gastrointestinal tracts. We are currently undertaking in vivo trials on the effect of using the product to prevent growth depression due to *Lawsonia* problems in grower- and finisher-stage pigs.

We have also planned and executed commercial trials to evaluate the usage of the product in the field, for example in Iberian pigs, not only during the nursery and grower phases, but also gestation.

"In Italy we are really excited about Fysal Solute; it works and we trust in it to give us more tools for keeping animals healthy without using antibiotics."

Gloria Fortunato, DVM
Sales & technical support
swine, Trouw Nutrition Italy



"In the commercial trial that we conducted with Iberian pigs, piglets had no diarrhea at weaning and the general sanitary status of the herd improved after the use of Fysal Solute in sows. Farmers have good feeling about Fysal Solute."

Milagros Carvajal Zaragoza, DVM
Product manager swine, Trouw Nutrition Spain

Iberian piglets eating feed with Fysal Solute during the nursery phase



Trouw Nutrition
case study 2
**Upcycling by-
products – the
sustainable
alternative**

The world's population is expected to reach nine billion in the decades to come; the need to provide healthy, nutritious food for this growing population will stress our food supply chain, and increase competition for valuable nutrients and other resources. To succeed on our mission of Feeding the Future, we need to help ensure all resources are used in the most efficient way, with the least negative impact on the planet.

According to UN research, 30% of food for human consumption, currently produced on 40% of available arable land, is lost or wasted in the supply chain. One way we can help reduce food waste is by upcycling by-products from the food industry for use in animal feed.

Roughly 40% of compound feed consists of by-products from food and bioethanol production, as well as the oil seed crushing and fat producing industries. It is vital that the nutritional value of these products is preserved to the highest possible standards, to ensure they are suitable for animal consumption and enable livestock producers to yield high-value animal proteins.

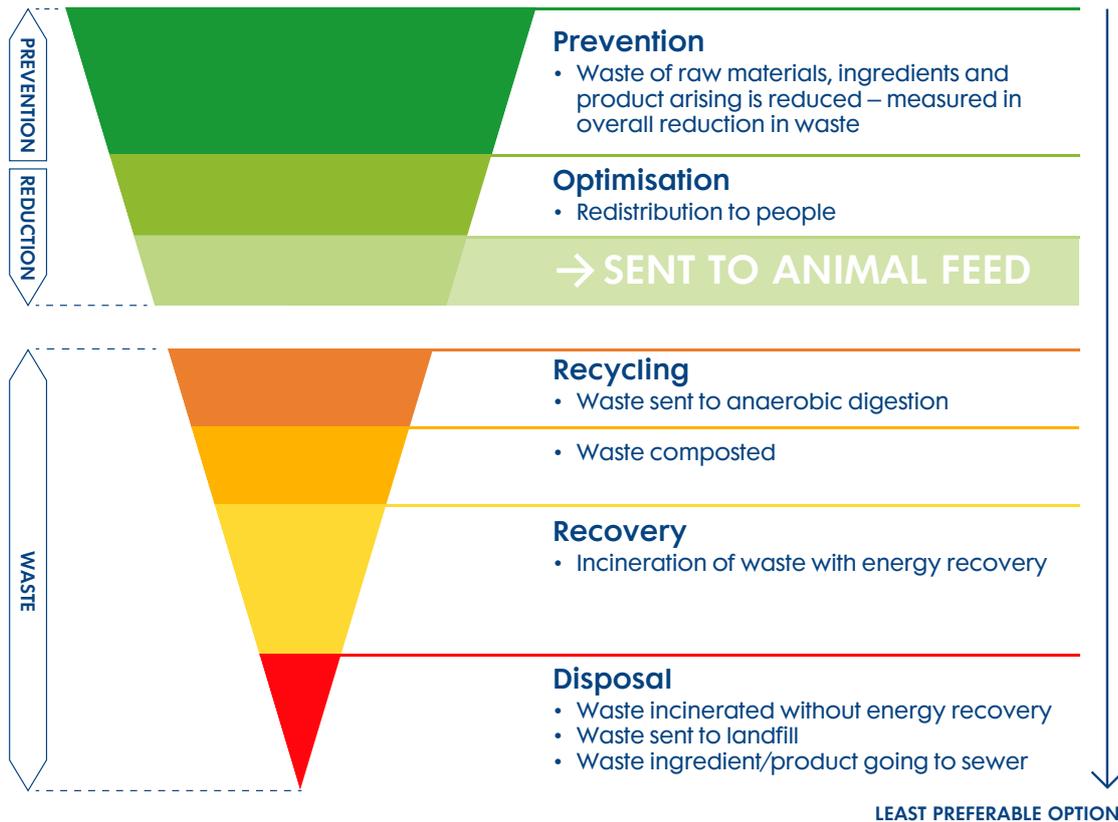
Using food 'waste' products as feed ingredients means that they need to be scaled up to by-products, moving them up in the hierarchy and making them available for animal feed (diagram on next page).

Trouw Nutrition's Feed Additive brand, Selko® offers solutions for this challenge through its knowledge, services and the Selko Revalet® product line that controls microorganisms, such as enterobacteriaceae, yeast and moulds.

Implementing these solutions, as part of a Feed Safety programme, prevents nutritional losses and enables food producers to support a circular economy across industries. In this way, our Selko solutions have created value for the food industry, for example at Roquette, a world-leading producer of plant-based ingredients for the food, nutrition and health markets.

Food and drink material hierarchy

MOST PREFERABLE OPTION



Christian Delporte

Technical Support Manager

Roquette Animal Nutrition: Working with Trouw Nutrition has enabled us to make significant improvements in the quality and nutritional value of our by-product streams. Following a lab-scale study, performed by Trouw Nutrition, we have tested their solutions in practical farm situations, where we stored our products for several weeks.

We have noticed that product quality was maintained and witnessed minimal losses in nutritional value. It has been a great opportunity to work with a knowledgeable partner like Trouw Nutrition, that supports us in reaching our waste reduction goals. Trouw Nutrition not only supports Roquette with the production of top-quality foods, but also allows us to supply them with high-quality feed ingredients.



Skretting case study 1
Working to “Xpand” shrimp farm performance and flexibility

Part of Feeding the Future is helping farmers produce more with less. Skretting’s new superior performance grower diet supports shrimp in reaching their full growth potential while giving farmers the flexibility and control to make decisions suited to their own unique operations and environmental factors. Xpand is the result of four years of innovative R&D conducted by Skretting’s Aquaculture Research Centre (ARC), as part of a commitment to growing and strengthening the shrimp industry through innovation.

“Whether it’s developing bigger, more valuable products, or reducing the grow-out stage to get shrimp to market faster, Xpand has the potential to be a game-changing solution for many of our customers. Through this heightened flexibility, farmers are now in a position to make the decisions that are best suited to their own unique operations,” said Lenaig Richard Breivik, Global Product Group Manager for Shrimp at Skretting. “Essentially, these results illustrated that growth is maximised through improved feed consumption and efficient nutrient absorption.”

The development of the product was based on a thorough understanding of the digestive physiology of shrimp and focused on three key principles. First, the product can be both eaten by the shrimp and digested in a shorter amount of time. Second, the shrimp’s feed intake is increased while maintaining the feed conversion ratio, which in turn leads to improved growth. The product also supports water quality in the pond by reducing the level of particles lost from the feed while it is in the water ahead of being consumed by the shrimp. Farmers can choose to reduce the costs and impacts of farming in exposed water locations by harvesting the same-sized shrimp earlier or choose to produce larger-sized shrimp within their usual production schedules

Xpand is initially being launched in Vietnam, and then strategically introduced to other important shrimp farming markets around the world through local communications to Skretting customers and partners. “We are very confident that Xpand will present a strong alternative to regular shrimp feeds. Shrimp prices have been challenged during the past two years, encouraging farmers to look for superior growth performance and solutions that optimise production costs. Xpand ticks all the right boxes; it’s a very important addition to Skretting’s shrimp nutrition portfolio,” said Marc Le Poul, General Manager of Skretting South Asia. The sustainability assessment shows that the NutriOpt split-feeding system substantially improves production efficiency while reducing carbon emissions.





Skretting case study 2 State-of-the-art nutrition for tilapia

Designed to suit all farming systems, Optiline is Skretting's dedicated grower feed for farmed tilapia to enable high performance and improved farm efficiency.

By making it possible to produce more tilapia with less feed, while protecting the environment, Skretting's Optiline is an important tool in our mission of Feeding the Future. Tilapia is one of the most widely farmed finfish species in the world, and with annual production in excess of 5.5 million tonnes, it is a critically important source of protein and livelihood for millions of people. The farming of tilapia takes place in a variety of aquaculture systems – from earthen ponds and cages to flow through and closed recirculating (RAS) tanks – each with their own unique benefits and challenges. To ensure consistently high performances under intensive conditions, Skretting has launched Optiline grower feed specifically for tilapia.

Skretting's ARC has built up a comprehensive understanding of tilapia's digestive system and specific nutritional needs and compiled this into an extensive raw material digestibility database. Optiline was developed using this research to ensure an optimised and consistent digestible nutrient and energy supply specific to the species, meeting the sector's increasing demand for higher growth rates at a lower feed conversion ratio (FCR).

Precise feeding

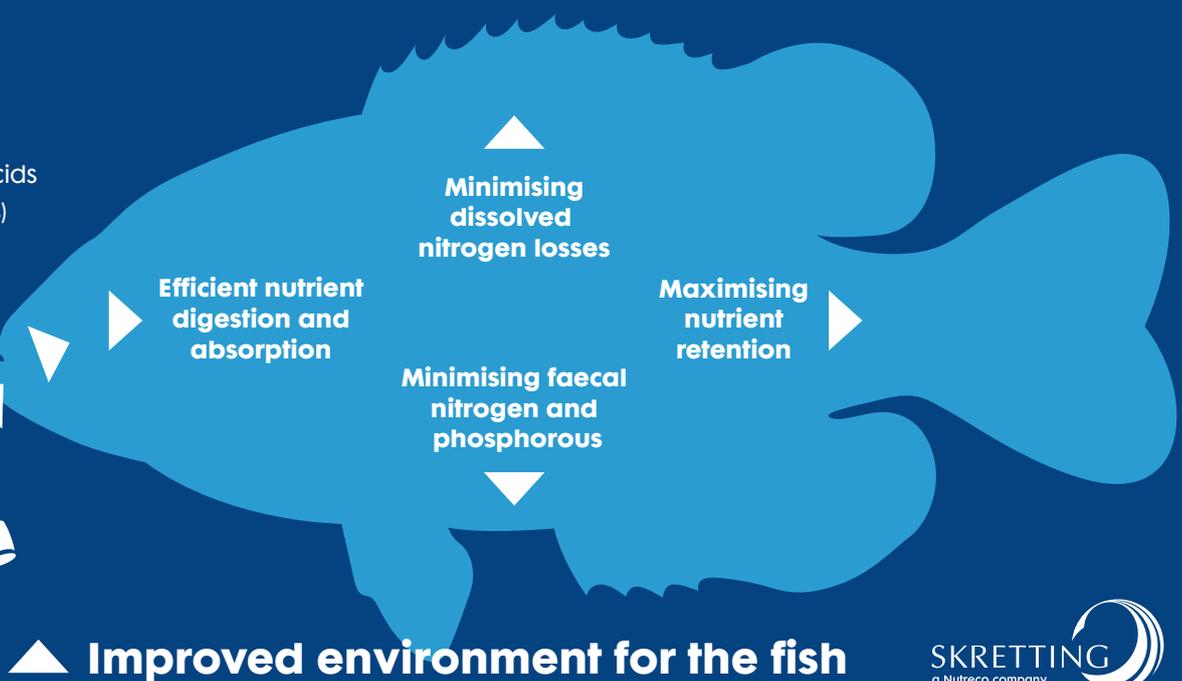
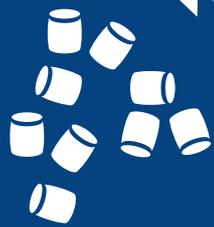
Through precise feed management procedures, farmers can ensure the new diet is provided in the right quantities and at the right time, reducing the farm's environmental impact.

"Aligning state-of-the-art nutrition with the latest biological and dietary knowledge will allow farmers to establish production systems that are far more efficient, and lower their environmental impact. This is the ideal way to harvest the world's most popular farmed fish responsibly and sustainably," says Haidar.

Optiline will first be made available to Skretting Africa's customers, and later offered in the other main tilapia production regions around the world.

Optiline

Precise digestible nutrient levels (protein, amino acids and phosphorous)



SKRETTING
a Nutreco company



“Optiline is the latest solution to come from Skretting’s long-term commitment to the tilapia sector. This new diet is designed to provide maximum value for farmers of this fish and to help them improve the sustainability of their operations. Through faster growth and superior feed conversion when following an optimal feeding frequency management, Optiline provides tilapia farmers everywhere with the opportunity to achieve improved fillet yield while lowering production costs. This, in turn, makes them better placed to meet market demand and improve their profitability.”

Mahmoud Haidar,
Species Manager Tilapia at Skretting

“In developing an Optiline feed that consistently demonstrates improved growth and feed efficiency for tilapia, we conducted multiple internal and external digestibility and growth trials. This means that the fish is able to make better use of the nutrients provided. Ultimately, this means we need less feed to produce the same amount of fish. Furthermore, the quality of ingredients from various origins is continuously evaluated to improve existing diets and to ensure that future industry needs are met. This knowledge gives Skretting full flexibility in its feed formulation and enables us to provide the most cost-efficient solutions for farmers.”

David Sutter,
Researcher at Skretting ARC



NuFrontiers case study 1
Exploring meat alternatives through our partnership with Mosa Meat

In 2019, Nutreco's strategic innovation and investment team, NuFrontiers, entered into a strategic partnership with Netherlands-based Mosa Meat. Since 2013, when it developed the world's first cultivated hamburger, Mosa Meat has significantly grown its team and started to build a pilot production plant, where its first commercial products will be grown.

The process of making cultured meat is similar to producing meat from livestock, except the cells grow outside the animal's body. From one sample taken from a cow, Mosa Meat expects to be able to produce 800 million strands of muscle tissue: enough to make 80,000 burgers. While the production process is still under development, Mosa Meat expects that cultured meat production could use significantly less land and water and generate fewer greenhouse gas emissions compared to conventional production, with reductions potentially reaching over 95%.

As the global meat-eating population grows, Nutreco sees investing in alternative protein production as both a healthy and necessary diversification.

"I am thrilled that Nutreco has partnered with Mosa Meat, as this opens the opportunity to produce real meat on a large scale in a highly sustainable and animal-friendly way. If we are serious about Feeding the Future sustainably, we will need to produce protein from a variety of sources, including animal agriculture and alternative proteins,"

Rob Koremans, CEO Nutreco

The collaboration between Nutreco and Mosa Meat will focus on developing ingredients for cell-based meat production.

"As we enter a new phase, we're excited to work with Nutreco, who have brought us their deep expertise managing manufacturing supply chains at a truly global scale."

Maarten Bosch, CEO Mosa Meat



NuFrontiers case study 2
Investing in Kingfish Zeeland to boost RAS-produced yellow-tail kingfish

In 2019, Nutreco's strategic innovation and investment team NuFrontiers invested in Dutch company Kingfish Zeeland, which aims to bring supplies of yellowtail kingfish to the U.S. and European markets through a proprietary recirculating aquaculture system (RAS).

Yellowtail kingfish is a premium fish species, traditionally used in Japanese and Italian cuisine. In the U.S. and Europe, supplies are constrained because local production is negligible. Established in 2015, Kingfish Zeeland offers locally produced, ultra-fresh, Aquaculture Stewardship Council (ASC) / Best Aquaculture Practices (BAP)-certified yellowtail kingfish raised through RAS. The team goes to great effort and expense to ensure their operations are safe and healthy for customers, stress-free and humane for fish and minimally impact the surrounding nature. For example, they never use antibiotics or vaccines, use 100% renewable energy and heat exchangers, and conserve fresh water by using sea water.

This round of funding, that Nutreco and other co-investors participated in, should enable Kingfish Zeeland to double their current production capacity of 500 tons per year, and prepare for large-scale production elsewhere. In addition to the financial investment, Kingfish Zeeland and Nutreco will also cooperate on developing best-in-class RAS feeds, expanding on the juvenile feed Skretting is currently delivering to Kingfish Zeeland's operations.

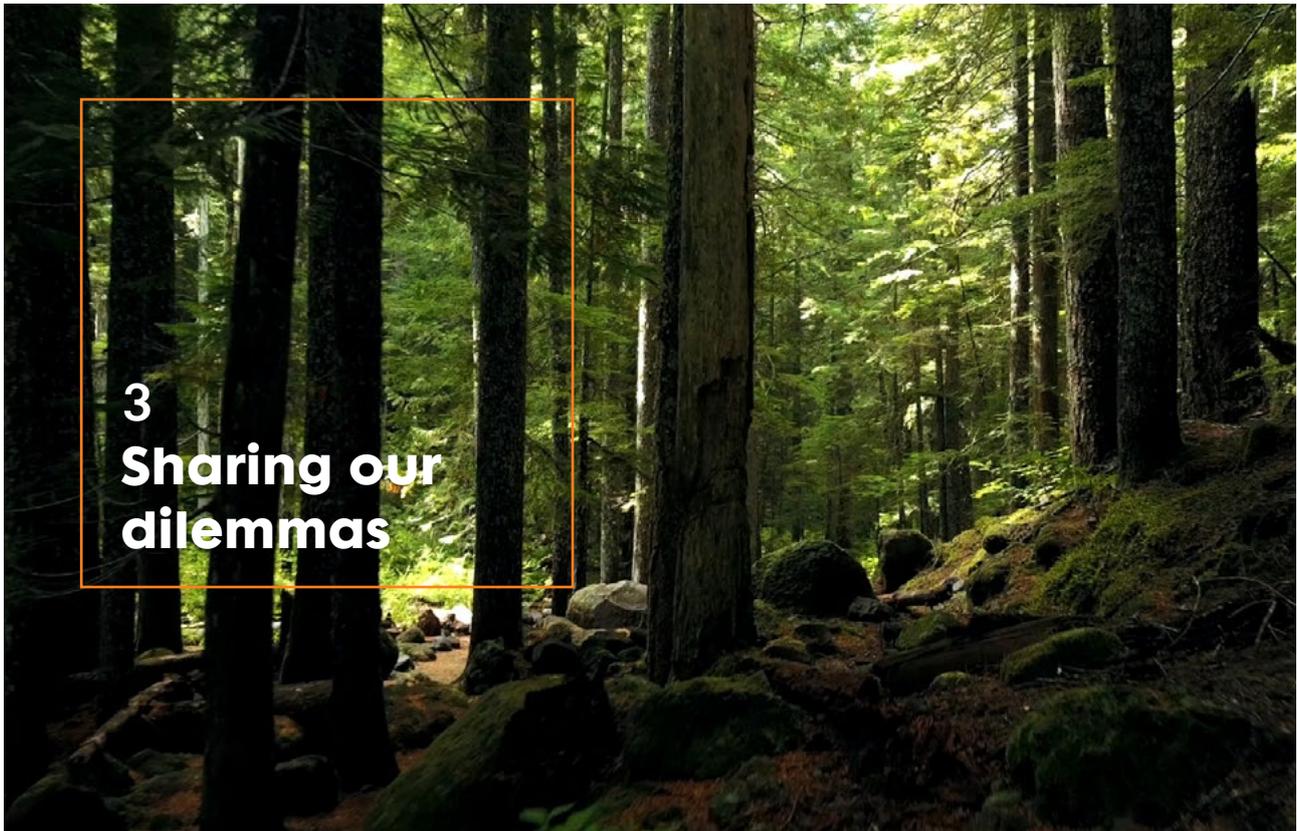
"Nutreco's ambition is to continue to invest and partner with leaders in sustainable protein production around the globe. This investment fits well with our strategy to play a leading role in the development of sustainable solutions to fulfil our mission of Feeding the Future. Over the past few years, it has become clear that the growing demand for seafood calls for development of alternative farming models, such as RAS, to complement the existing aquaculture methods."

Nutreco CEO Rob Koremans

"Kingfish Zeeland has successfully gained a first mover position in the premium RAS farming sector, producing high value yellowtail kingfish in a sustainable way. We believe that full-cycle RAS is a very relevant way to farm fish, which builds on the existing knowledge of on-land farming. Kingfish Zeeland is the kind of innovative and technologically-knowledgeable partner we want to be working with."

Eirik Welde

Freshwater director at Nordlaks



3 Sharing our dilemmas

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Striving to operate sustainably brings challenges; the issues we tackle are large and complex. We are candid about our dilemmas to better engage with our partners and address common goals together in innovative ways.

Nutreco has a unique position in the food protein value-chain, poised between the raw material suppliers of our ingredients, that have environmental and social impacts of their own, and our ability to offer protein producers nutritional solutions that help them produce safe and nutritious food for the planet's surging population.

Our largest impacts on climate change and biodiversity loss take place in our supply chain. The issues related to our wider environmental footprint can be complex, extend to scope-3 suppliers, involve governmental and regulatory action – often across international lines – and prove cost-prohibitive to implement. We call these issues “dilemmas,” because there is no easy fix, and resolving them often involves many layers and external stakeholders at international trade and industry-wide scale. The following issues continue to be major challenges for which Nutreco dedicates significant resources and goodwill to find solutions.



Legal deforestation

As forest fires raged in South America and Australia in the second half of 2019, the effect on climate change and biodiversity loss was commonplace chatter on social media and news channels across the world. This increased level of awareness expanded the debate on deforestation to include not only the need to eradicate illegal deforestation but the question of whether legal deforestation should be acceptable today in specific areas with uniquely valuable environments.



This is controversial because it approaches an infringement on the borders of national sovereignty. While continued deforestation when alternative options are available is not readily justified by society at large, there is a valid ethical debate about why OECD-member countries should be able to ask countries with emerging economies to cease behaviour that the OECD countries actively participated in centuries before. Nutreco, being a global company, has struggled with this debate for years.

The reality is that the demand-side market has a right to dictate the terms of supply criteria to its suppliers. It has a right to identify specific biomes or geographies that have the unique ability to protect biodiversity loss or qualities that mitigate environmental impact. This becomes more socially acceptable if there are alternatives that offer emerging economies a path forward to continued development, which is often the case.

In Brazil, for example, legal deforestation is driven by the need to develop pasture for beef ranching and grow soy and other commodity row crops and by land speculation (often for the prior two industry sectors). The country could implement incentive policies that would activate incorporating the existing 140 million hectares of degraded lands (as reported by the Brazilian Department of Forestry of the Ministry of the Environment) into agricultural lands to produce soy crops. The soy industry in Brazil has demonstrated its world-class capabilities in regenerating degraded lands to achieve top-tier production yields. Our Trouw Nutrition Brazil OpCo has actively collaborated with NGOs to raise awareness among mid-sized beef ranchers of the benefit of increasing herd density over pastures from the current national average of 1.6 cows per hectare to 2.3 cows per hectare by implementing holistic best practices and supplemental nutritional solutions. This would support the output production increase the country aspires to.



Nutreco Chile rewarded customers at Christmas with the symbolic gift of a tree plantation. Nuterra Forest, located in Dos Lagunas National Monument in Coyhaique, Chile, will have 1,500 native trees.



The alternatives are there. Countries with emerging economies can increase their productivity and GDP by utilizing currently available technology. They can also demonstrate their environmental stewardship, which will increase reputational value in discerning OECD markets. It's a win-win situation that can eliminate legal deforestation in unique biomes.





The effectiveness of pre-competitive platforms



For the past decade, pre-competitive platforms have promised to be an effective way to address complex and sensitive environmental and social challenges. When one company struggles to address an issue, it can be rewarding to join peers, and even competitors, to address the challenge in a transparent way, “pooling” technical know-how and resources for the greater good of the industry. Several such platforms have distinguished themselves as successful and effective – the Global Salmon Initiative (GSI) and Seafood Business for Ocean Stewardship (SeaBOS), to name two.

But what happens when an issue is resolved? Pre-competitive platforms help mitigate impacts but are not always as effective in “moving the needle” for transformational change in the value chain. Transformational change requires that the solution achieve mainstream acceptance; it cannot remain a niche activity or sustainable product offered by companies participating in pre-competitive spaces. The solutions may add incremental costs in the value chain, and are often blocked by companies because of a perception that the market won’t adopt them. To “move the needle” on transformational change, not only should the market adopt the solution, but also mainstream it, to make it the next, business-as-usual trend.

To increase the probability that sustainable solutions developed within these platforms are adopted into the mainstream value chain, we need to ensure that the food retail and foodservice sectors participate in the pre-competitive initiatives. Perhaps not as pro-active participants in technical working groups but as active partners participating to look out for their interests and make it easier to pave the way for long-term purchasing commitments being offered to the market. Participating NGOs can also co-partner on consumer campaigns with retailers to encourage market uptake by consumers.

By orchestrating a value chain platform, partners at every stage of the value chain can commit to and share the incremental costs of complicated environmental solutions, making them more attractive to market into the mainstream. This will enable transformational change to occur, and then companies can move on to the next complex challenge.

An example of a precompetitive platform is Nutreco's work, with other industry partners, as Chair of Task Force 1 in the SeaBOS initiative. Preliminary results suggest that we can achieve unprecedented levels of transparency in high-sea fishing activity by incorporating cutting-edge technology, such as facial recognition and fish species recognition software and blockchain, to address Illegal, Unreported & Unregulated (IUU) fishing activity and slave labour in the primary value chain. The question remains: will the food retail sector recognise this solution and adopt its practice in its seafood procurement policy? Imagine a world where all major food retailers and foodservice companies buy only seafood from suppliers who incorporate this practice on their fishing vessels. This would radically reduce IUU Fishing and slave trade in the seafood supply chain. However, if it is not adopted widely by the retail sector, it will die a slow death as merely an interesting academic exercise.





Trade-offs of formulating feed to reduce environmental footprint

For the past decade, pre-competitive platforms have promised to be a major challenge Nutreco faces is how to reduce the environmental footprint of both our products and the raw materials we use to produce them. Animal feed comprises an important part of the overall environmental footprint of the food we eat, and addressing this is crucial for mitigating our impact on climate change.

In most cases, more than 90% of the carbon footprint of our complete feed comes from the production of its ingredients. We have many opportunities to reduce our carbon footprint by substituting one raw material with another of a different type or from a different geographical region. There are also many other environmental impacts we take into account when formulating feed, such as total land and water usage, eutrophication, and in the case of aquaculture feeds, the use of wild fish as a raw material.

Today, it is common to calculate the carbon footprint of products and believe this tells the whole story. But the truth is more complex. The carbon footprint doesn't take into account other important impacts. For example, we put a lot of effort into formulating our aquaculture feeds with a low inclusion level of fishmeal from wild fish, or we use more fishmeal coming from by-products and trimmings as opposed to whole wild fish produced directly to fishmeal. However, because this fishmeal is more processed, it uses more energy and has a higher carbon footprint than fishmeal from whole wild fish. If our only aim was to reduce our carbon footprint, we should increase the use of fishmeal from whole wild fish. But this would take us in the wrong direction in terms of overall sustainability. The use of by-products can be positive for the environment and in support of a circular economy. This dilemma could be extended to other potential by-products we use in feed production.



Trouw Nutrition Brazil's "Our Fleet is Powered by Ethanol" program aims to use only sugarcane ethanol fuel in its car fleet, empowering agribusiness and lowering emissions by around 1,000 t CO₂/yr



There are also instances in which the rules for calculating the carbon footprint are not designed to drive purchasing of raw materials in a desired direction. An example of this is the carbon footprint that results from land use change or deforestation, which is calculated, in a simplified way, by looking at deforestation over the last 20 years. As a feed company, we strive to buy deforestation-free soya in areas with high risk of deforestation. “Deforestation free” means the soy is grown on land that has not been deforested since 2008. However, because of the 20-year default rule in traditional Life-Cycle Assessment (LCA) methodology, it does not reduce our carbon footprint. There is no LCA-calculated incentive in some areas to buy deforestation-free soy in order to reduce a company’s carbon footprint.



The image shows the European Union flag, a blue field with twelve five-pointed gold stars arranged in a circle, waving against a clear blue sky. The flag is attached to a silver pole with a gold finial.

Open letter to the government – Change is needed!

As we work towards innovations that will make farming, products and supply chains more sustainable, we are often faced with regulations that act as “double-edged swords.” While the primary purpose of legislation is to protect, it is typically drafted with a specific aim in mind that is relevant to the time of its creation, and systems are put into place over time to achieve this aim. As times change, and needs evolve, legislation itself can become a hurdle to bringing our systems up to date. Such is the case with the emerging circular economy in Europe – it is aiming to shift the systemic interactions between stakeholders in the supply chain in a way that challenges existing legislation.

It is fair to say that the EU’s current regulatory framework successfully reached its initial goal to “guarantee a high level of food safety and restore consumer confidence.” Food has become safer than ever before and the number of serious incidents in both food and feed have dropped enormously. Unfortunately, the same regulatory framework is now presenting hurdles for sustainable feed production. Enormous quantities of valuable protein are wasted every day, as animal by-products from slaughterhouses still cannot be used in nutrition for pigs and poultry – animals that are otherwise omnivores. Animal by-products were banned as a result of the Bovine spongiform encephalopathy (BSE), or Mad Cow Disease, outbreak 20 years ago, yet today, even after several European Food Safety Authority (EFSA) opinions have reaffirmed the safety of using sterilization practices, regulations have not been changed.

In recent years, there has been much talk of the enormous quantities of human food wasted across the supply chain: up to one third of all that is produced! While roughly 20% of this waste occurs in the home, making it inaccessible to the greater public, the rest occurs somewhere between the farm and the point of consumption. At best, this waste is biodigested to produce energy, but most of its nutrient value is lost. By-products from the local food industry often cannot be used in animal feed due to a zero-tolerance approach to the presence of contaminants and/or crop protection products that are otherwise tolerated in agricultural crops of known origin. As a direct consequence, valuable feed ingredients, such as cereals and soya beans, continue to be imported from other continents. The same tolerance limits on such contaminants should be applied to the valuable food waste being otherwise destroyed.



At Nutreco, we are dedicated to providing optimal health and welfare in animal production, working together with veterinarians and academics from around the world. Unfortunately, the opportunities to apply new nutritional solutions are limited because of the current regulatory framework. The feed law is based on the principle that nutrition is about providing nutrients for growth and feed efficiency. However, modern science shows that nutrition can support the resilience of animals to potential stressors on farms, the maintenance of animals' optimal health and welfare status and unnecessary emissions of greenhouse gases and other pollutants. In fact, modern nutritional solutions can mitigate two of the most important challenges that society faces today: climate change and antimicrobial resistance.

Dear government officials, in conclusion, we ask you to modernize the regulatory framework in order to take sustainable feed production into account. This is very much in line with the Green Deal, the European ambition to become the world's first climate-neutral continent by 2050.



4 Supporting our communities

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catfish farmers

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small milk producers in Minas
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Another way we help to feed the future is by focusing locally in communities where it matters most. We share technology and best practices along with our nutritional solutions, empowering small farmers to raise themselves out of poverty – in a sustainable way.

Dealing with the issue of poverty remains an urgent and complex challenge. According to the World Bank, we have made good progress globally in reducing the percentage of people living in extreme poverty in recent years, but we still have a long way to go. As of 2015 (the most recent data available), 736 million people still lived in extreme poverty. If we continue on our current path, in just 10 short years it may become impossible for us to eradicate extreme poverty. In fact, it is already becoming more difficult because the people who need help often live in fragile countries and remote areas.

The majority of the extreme poor worldwide are employed in the agriculture sector, which gives Nutreco a unique opportunity to make a difference. We are working to do this through our five community development projects. By sharing technology and best practices while also offering appropriate nutritional solutions, we empower small farmers to improve their economic situation.

In 2019, we saw encouraging results from the following five projects and continued to seek international partners to help us increase the number of small producers we can impact. In 2020, as we shift towards our RoadMap 2025 strategy, we hope to significantly increase the number of farmers we create opportunities for.



Nigeria Making ponds more profitable for catfish farmers

Since 2015, Nutreco and Skretting have partnered on the Catfish Sustainability Project (CSP) in Nigeria, with excellent success. Through this project, we are working to enhance the production, profitability and environmental sustainability of the catfish business in the Ibadan region, while empowering small farmers to raise themselves out of poverty. CSP was funded by Nutreco and Skretting Nigeria and facilitated by the Ibadan Justice, Development and Peace Commission.

In 2019, 227 new catfish farmers joined the project, bringing the total number to 485, clustered into 28 groups that learn from each other and share best practices.

Over the course of the year, we helped participating farmers integrate best management practices and improve the sustainability of their businesses through training, advisory services and learning visits. A total of 60% of the farmers were found to be fully compliant with the trainings, leading to an improved fish survival rate of 93% in 2019, compared to 65% in 2016.

Participating farmers have been able to maintain or improve their incomes; average profit per farmer increased from 11% in 2016 to 27% in 2019. New groups of farmers increased their profit margins from 0-5% to 14%, while groups that had been in the program longer were able to maintain an average profit margin of 33% in 2019. As a result of their experiences through a learning visit to Hyfar Farms in Ogun state, three farmers' groups have decided to open four fish marketing outlets.

"Since the adoption of best management practices, serial disease outbreak has been controlled on my farm. For example, a present batch of fish are three months old in the pond without a single incidence, which is not normal in my operation before, as a month hardly passed by without an outbreak."

Ibitomosin Joshua,
Greenleaf group,
Oroge, Ibadan

The training on cooperative management, savings and credit the farmers receive through the project has helped them form cooperatives. Today, at least 190 farmers can access credit facilities from their groups, giving them essential support as they build their businesses.

The project still faces challenges, including the poor quality of catfish seedlings, insufficient funds under micro-financing for farmers, a low selling price of table-sized (850-1000g) fish and diseases caused by poor and inadequate water supply during a prolonged drought in the area.

In 2020, we will focus on adding even more farmers to the program, aiming to have 700 participants by the end of the year. We will also facilitate the establishment of a cooperative group to provide a united force in determining the market price of catfish. The team plans to incorporate market-oriented innovations, such as the production of value-added products and the use of online marketing tools, to improve profitability.

“My participation in the catfish sustainability project of JDPC/Skretting has brought convenience and profit to my business compared to the method used before.”

Ayoade Adelabu,
of Agbejoba Fish farmer
group, Apete, Ibadan

Table highlighting “before and after” KPIs, including income per year

	2016	2017	2018	2019
Participating farmers	50	109	258	467
Feed conversion ratio	1.7	0.9	0.94	1.204 ^a
Average harvest weight (kg)	0.6	1.2	0.863	0.89
Survival rate (%)	69	90	95	93
Production cycle per year	2	3	3	2/3
Average cost of production/farmer/kg of fish (N)	461.07	439.83	378.27	370.67
% Average profit per farmer (N)	11	28	35	27 ^b
Growth rate/week (g)	25.6	48.5	51.52	43.42 ^c
Average body weight at stock (g)	5.48	51.86	72.88	65.45
Average income/farmer/year	963,416.44	879,412	1,215,792	1,207,800

Note

- A. The food conversion ratio was higher as a result of the increase in the use of the “Essential” variant of Skretting feed (compared to previous years) among farmers.
- B. Reduced percentage of average profit per farmer was due to a drop in the catfish sale price in 2019.
- C. A reduced growth rate was caused by general disease outbreaks coupled with poor water quality/low rainfall.



Justice Development Peace Commission (JDPC), Ibadan

JDPC, IBADAN



Zambia Helping small tilapia farmers satisfy Zambia's appetite for fish

In Zambia, in south-central Africa, more than half the population lives below the poverty line. Aquaculture is an important sector in the country's economy, and Zambians get a high percentage of their protein intake from fish.

The project is focused on helping smallholder farmers in the Mpulungu region improve their livelihood. It is an inclusive project, with the participating farmers being 45% female. Women play an important role in the livelihood of most households, so it was important to have their participation.

Overall, the team has delivered good results to the community so far. Farmers have adopted methods for improving their businesses, taught through the program, including consistent record keeping, regular sampling and the importance of using good fingerlings (young fish). Skretting provided quality feed to ensure satisfactory results, which farmers could see and now apply to their own businesses. Kalugwisha Astridah, one of the women participating said, "I didn't know that there was such a thing as sex-reversed fingerlings [a common practice in tilapia farming, because male tilapia grow faster than females]; this has changed my farming practice."



The project has also had its challenges. These included the use of some slow-growing fingerlings, a low survival rate of 69.9%, a drop in market price and low profitability. The remote location, which led to transport challenges during the harvest, also negatively impacted results. Four farmers incurred losses due to flooding during the rainy season, when their ponds were washed away.

The team is always looking to build on its successes and improve how it handles challenges. The team will also look for more partners for future projects in Zambia, including NGOs for technical support, agro-dealers for feed distribution and government officials for closer collaboration.





Guatemala Empowering women in La Fragua through egg farming

Malnutrition is one of the biggest challenges in Guatemala, which has the sixth-highest rate of chronic malnutrition in the world and the highest in Latin America.

The La Fragua region is located in the Dry Corridor, 160 kilometres away from Trouw Nutrition South and Central America's (SCA) headquarters. La Fragua has a poverty rate of 89%, surpassing the national rate by an astounding 29.7%³. Unemployment and low educational rates are the main factors driving this poverty. Seasonal unskilled labour on private farms by men comprises 60% of household income; most women stay at home taking care of their families and trying to generate income through domestic labour.

Trouw Nutrition SCA, in collaboration with Good Neighbors Guatemala, initiated the PLUMAS community development project in 2017. This project is empowering women in the La Fragua community to produce a rich and affordable source of protein: eggs. At the beginning of the project, each of the fifty participating families received a hen house, feed and drinking troughs, bedding, feed for two months and 100 laying hens. Through Trouw Nutrition's customer network, the co-op is able to purchase feed at a more affordable price and sell their eggs at a higher price than the market standard.



In Pargua, Chile, where most men are fishermen, Nutreco organizes workshops aimed at training people from minority and impoverished groups (unemployed women and the elderly) in activities like leather handcrafting, sewing, and ceramic tiling.

"I now see myself as an entrepreneurial woman who is worth more, who can be self-sustainable and contribute economically to my household."

Belsy Garrido

"I have learned many things through this project, and with this knowledge I can produce an income for my family and help my husband."

Bertilia López

The biggest challenges encountered so far by the PLUMAS team have been the local lack of knowledge about egg production and the lack of water in the community. To support their success as egg farmers, women continuously receive training from Trouw Nutrition's experts and the Ministry of Agriculture on farming and animal health while a local educational institution provides business and management training. In addition, to relieve water scarcity within the community, Trouw Nutrition SCA and Good Neighbors donated a water well at the start of 2020. Men, women and children from the community united in this project to help dig the trenches for the plumbing that now supplies the entire community with tap water. To further help break the cycle of poverty, PLUMAS incentivizes families to send their children to school, not only as a condition of the program, but also by sponsoring a school fund that provides full scholarships to five local children.



"I now can secure a healthy source of food for my family; I do not have to be searching what to give them. I always have eggs available for my children to eat."

Rosalbina Ramírez

Hens per family	families	women empowered	children benefited	income growth per household	scholarships granted
100	50	93	87	68%	5

"I have lived here for over 24 years and never saw signs of water, but now we have tap water for the first time."

Bertila Agusín

Today, the co-op has become self-sustainable, with a revolving fund that allows them to purchase feed, packaging and a new flock at the end of the laying cycle at an affordable price. Together, women in the community are producing an estimated 20,000 eggs per month, increasing household incomes by up to 68%. Becoming egg farmers has enabled women to improve their families' quality of life, providing a stable source of food and a sustainable source of income.

We are proud that these families are breaking the cycle of poverty through PLUMAS, and excited to announce that the project will expand to another 50 households in 2020.



"I know the sacrifice my parents have gone through to let me study, so I want to use this opportunity to become better, develop into a professional and help them get out of the poverty we are in."

María José Zabaleta Varela,
(scholarship beneficiary)



Vietnam Supporting product safety in Vietnam's growing dairy sector

As in many Asian countries, dairy consumption is rapidly increasing in Vietnam, doubling in the past decade. With this, the prevalence of food safety hazards in milk products is growing. Trouw Nutrition Vietnam has joined forces with the Vietnamese National Department of Livestock Production, part of the Ministry of Agriculture and Rural Development (MARD), to increase feed-to-food safety in small-scale dairy production in the country.

Aflatoxins are mycotoxins produced by moulds in animal feed ingredients and are one of the strongest naturally occurring carcinogens. Small-scale milk production poses a two-fold risk related to aflatoxin contamination. When cow feed products are contaminated, it has an adverse effect on efficient milk productivity but also poses a human health risk; up to 6% of a cow's intake gets transferred into its milk. Trouw Nutrition's expertise, technology and nutritional solutions can play an important role in alleviating aflatoxin-related risks.

One of the main goals of our community development project in Vietnam was to determine the actual aflatoxin contamination of milk produced by smallholders in the country. Preliminary results showed that aflatoxin was present in a number of them, but at concentrations below the Vietnamese legal limit. In early 2019, we performed a second analysis and found more elevated levels of aflatoxin in several milk samples. Higher contamination of aflatoxin in milk was most likely originating from corn-based silages. Our results highlight the need for both an effective prevention of aflatoxin contamination of feed and milk at producer level, and an effective control system on the processing side. Contamination of milk coming from farmers in this project was traced back to contaminated silages fed to cows. To tackle this issue, Trouw Nutrition Vietnam is working with the largest silage producer in the region to increase silage quality.



For the ninth year in a row, Skretting Vietnam, through its "Skretting gets kids to school" programme, has been giving kids school supplies. They passed out 1,200 gift packs this year.



African Swine Fever has also impacted the community development project. Different priorities and travel restrictions made it more challenging to organize meetings between farmers. Nevertheless, in November, a successful stakeholder consultation was organized. Around 90 participants from 50 different organization joined, including government agencies, dairy cooperatives and private companies and universities. During this meeting, we presented our feed-to-food safety program and discussed various aspects specifically relating to aflatoxin.

In addition to the benefits provided to farmers, customers and the industry as a whole, our community development program in Vietnam has benefited Trouw Nutrition by improving our relationship with the Vietnamese government and providing commercial opportunities to present our expertise.



Brazil
Supporting a
brighter future
for small milk
producers in
Minas Gerais

The city of Juiz de Fora is located in the state of Minas Gerais, the largest milk-producing state in Brazil. Until the 1990s, the Juiz de Fora region was one of the main milk producers in the state, but when drought made it more difficult to grow forage here to feed animals, the large milk farmers moved west to gain proximity to crops and lower grain prices. Remaining in Juiz de Fora were the small farmers, who operated within a family farming economy.

At first, the farmers were very discouraged by the low milk prices they were being paid by the dairies, and unstable milk prices made it impossible to plan a strategy to have forage available for the whole year. Many were considering giving up milk farming altogether.

Trouw Nutrition Brazil established a partnership with Pro-Leite, a technical assistance program for small milk farmers in Juiz de Fora. Together we developed a strategy to help these smallholder milk farmers by encouraging them to grow the BRS Capiaçú variety of grass for forage.



“Farmers were leaving everything behind and moving to the big city. My parents used to tell me, ‘You have to go to school so you can leave this place. There’s no other way.’ So, I ended up moving to the city to find work. Later on, I started to get a glimpse of hope. All of my technical knowledge helped me change things a lot around here. There really is a feeling of a newfound interest, hope and expectation of carrying on the work and actually reaping positive results.”

Eduardo de Almeida,
Dairy Farmer

BRS Capiaçú grass is a genetic improvement on elephant-grass (*Pennisetum purpureum* Schum) developed by the Brazilian Agricultural Research Corporation (EMBRAPA), a state-owned research corporation affiliated with the Ministry of Agriculture. The grass has high productivity (50 tons per hectare, annually), requires less fertilizer and pesticide, and due to its fast growth rates, can achieve up to three harvests per year. Compared to corn, it is also more resistant to environmental factors like rain.

In our first workshop as part of the project, Trouw Nutrition showed the farmers how to manage their income from milk production and the cost/benefit ratio of BRS Capiaçú grass growth and silage. During the second workshop, the team taught the farmers techniques around soil preparation, planting, harvest and silage for growing the grass.

In 2020, the teams from Trouw Nutrition and Pro-Leite will follow up with the farmers to check on how their milk productivity and quality* has evolved. We will hold a third workshop on milk quality and best practices to avoid contamination by bacteria and somatic cells and cover environmental protection and family succession in 2020.

With Trouw Nutrition's support, the farmers in Juiz de Fora have a more hopeful future in milk production and look forward to encouraging the next generations to continue in their footsteps.

* The limits for Total Bacteria Count are 300,000 CFU/ml and for Somatic Cells 500,000 SCC. Currently, the results have been higher than the limits, with an average of 924,500 CFU/ml and 716,000 SCC.



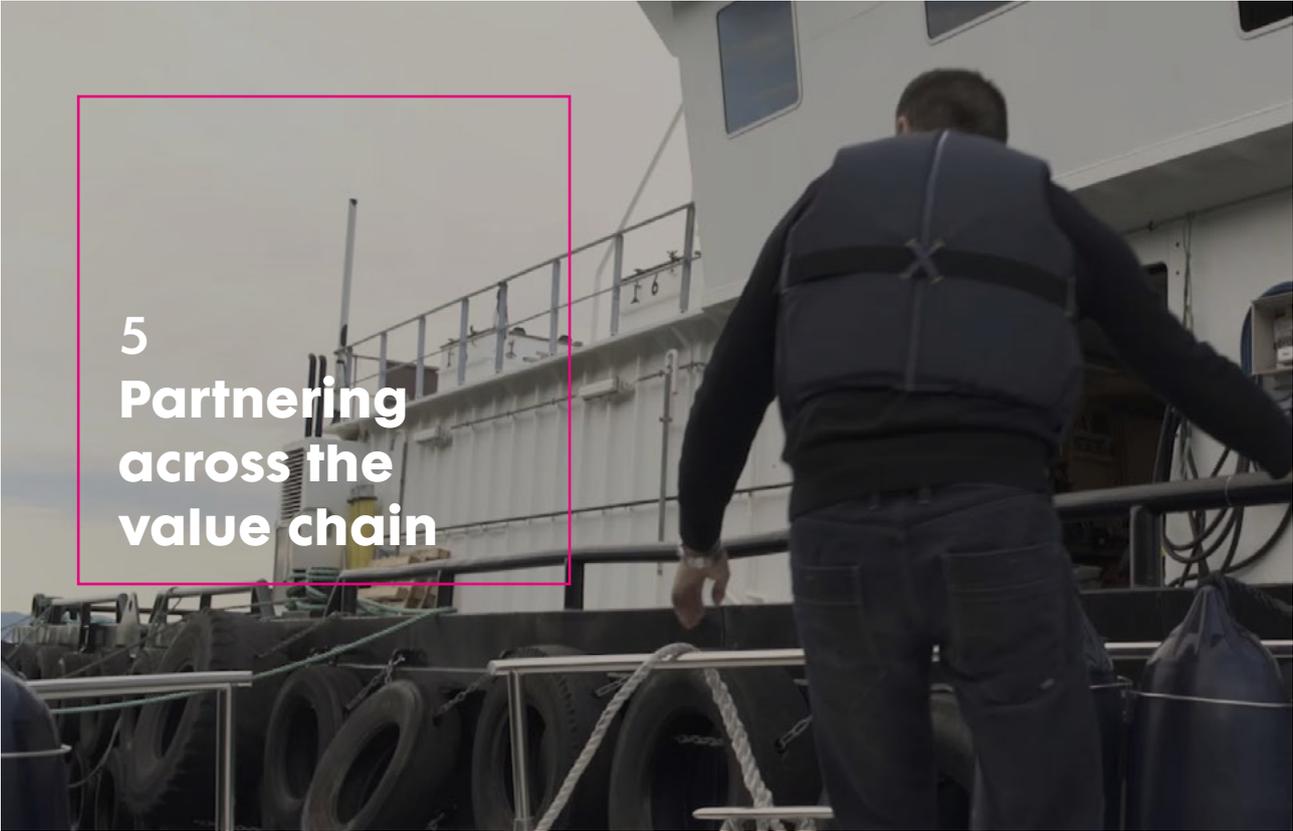
"Small farmers are often forgotten and left aside, and we are always working around the clock. When we get together for events like these, the results are amazing. We can see the difference."

Francisco Zancanela,
Dairy Farmer

"Projects like these are very positive; we get to learn new things and have an opportunity to interact with other farmers. This process of sharing experiences is very helpful to us. After these events, we're super excited and filled with new ideas, ready to get back to work on our own properties."

Rodrigo dos Reis,
Dairy Farmer



A photograph of a person from behind, wearing a dark long-sleeved shirt, dark pants, and a grey life vest. They are standing on the deck of a white ship, looking out over the water. The deck has various equipment, including ropes and tires. A pink rectangular box is overlaid on the left side of the image, containing the section header.

5 Partnering across the value chain

SeaBOS

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The work we do to address sustainability challenges cannot be solved by one company or community alone. We partner with customers, suppliers and others across the value chain to make the biggest possible impact.



SeaBOS Seafood Business for Ocean Stewardship



In 2019, Nutreco continued to be a key contributor to the Seafood Business for Ocean Stewardship (SeaBOS) initiative. A brainchild of the Stockholm Resilience Center (SRC), the SeaBOS initiative is unique because it has transferred an ecological concept of “keystone species,” which are especially crucial for the functioning of their natural environments, to the business sector around seafood production.

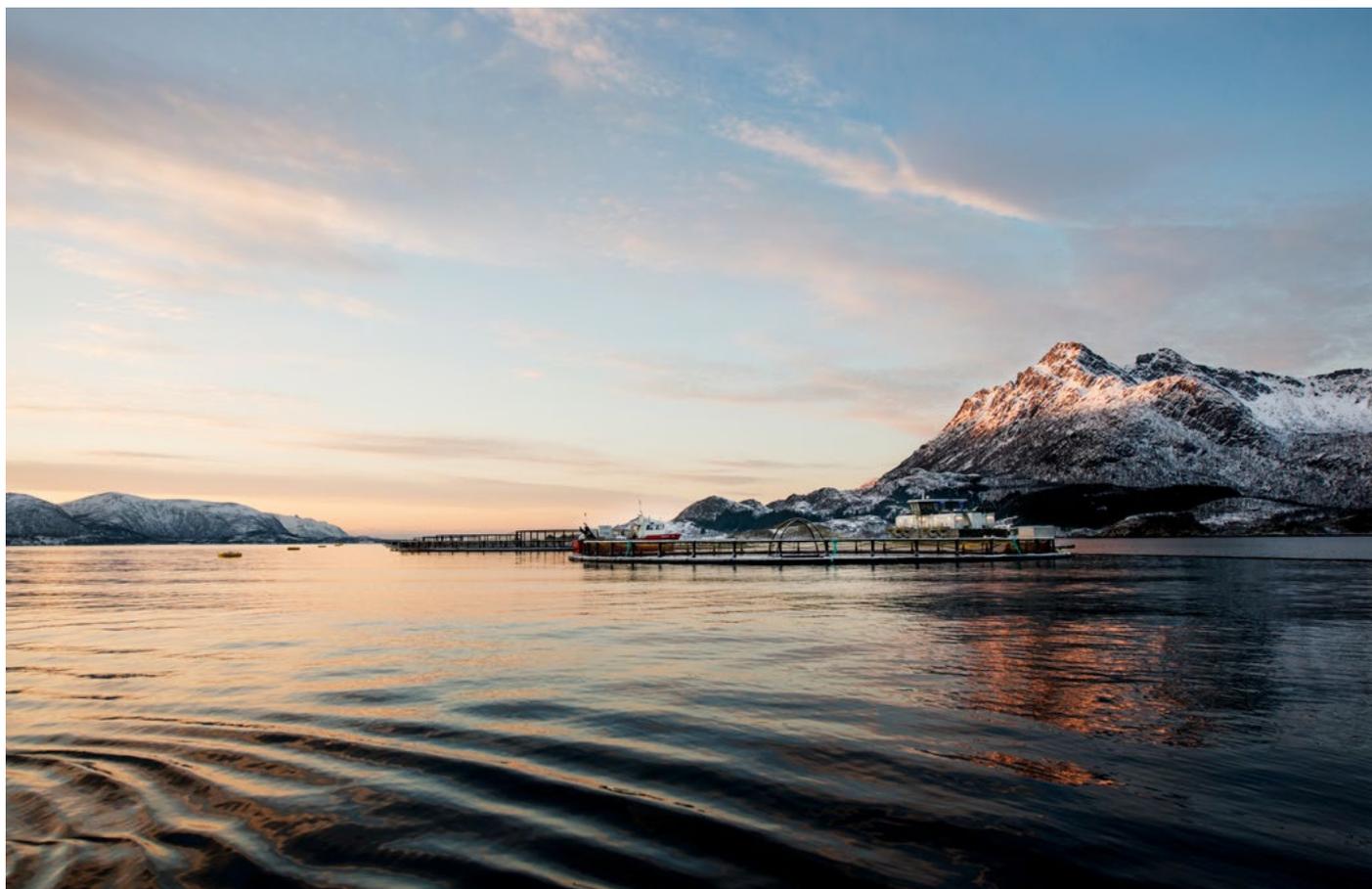
CEOs from the ten largest global seafood companies (including fishing, aquaculture and aquafeed manufacturing) have joined forces through SeaBOS to create transformative change; they include Maruha Nichiro Corporation, Nippon Suisan Kaisha, Thai Union Group, Dongwon Industries, Mowi, Cermaq (a subsidiary of Mitsubishi Corporation), Skretting, Cargill Aqua Nutrition, Kyokuyo and Charoen Pokphand Foods. The work is divided into five task forces: (1) Illegal, Unreported and Unregulated (IUU) Fishing & Modern Slavery, (2) Transparency and Traceability, (3) Improving Regulations, (4) Internal Governance and (5) Innovation.



Nutreco chairs Task Force 1, in partnership with the SRC and through close collaboration with Maruha Nichiro Corporation, Charoen Pokphand Foods, Dongwon Industries and several external environmental NGOs. It is focused on delivering (1) a document that addresses the seven high-level voluntary principles and 45 main criteria to significantly reduce the prevalence of IUU fishing activities and modern slavery and (2) a demonstration proving that the outfitting of commercial fishing vessels with deck cameras, crew facial recognition and captured fish species recognition computer



Trouw U.S.'s Pet Division believes in protecting those who protect us. They thanked local St. Jacob, Illinois police for an active shooter response training by donating a K-9 protective vest.



software, vessel tracking and the use of blockchain platform technology can be economically feasible and effective in documenting and reducing these risks. The first component is intended for governmental regulators to potentially adopt into their national legislation programs and for companies to adopt into their corporate procurement policies. The second component was successfully demonstrated with a proof of concept in 2019. Nutreco, with funding from the SRC, partnered with major IT service provider, Unisys, and Mexican fishing giant, Maz Industrial, SA de CV (MazInsa) of Mazatlán, Mexico, which volunteered one commercial fishing vessel for our use. Neither Unisys nor MazInsa are SeaBOS member companies but offered resources for the proof of concept. Nutreco hopes that this capability will be implemented and adopted into best practices by corporate and contractor fishing vessel protocols.

Nutreco's and SeaBOS's theory is that this will succeed only if and when food retailers and foodservice companies demand these practices, which would significantly reduce the access to market of suspect products in the supply chain. If successful, it will offer an unprecedented level of transparency and traceability in the high-seas fishing sector.



Pincoy Project 2.0



The Pincoy Project in Chile is a cooperative effort by seven companies spanning the entire salmon production chain, led by Skretting, and aimed at reducing the industry's antibiotic use by 50%. Historically, we have seen high usage of antibiotics by salmon farmers in Chile to control the Piscirickettsiosis (SRS) disease – a significant issue in the country's salmon farming industry. Pincoy is working to address this challenge through holistic measures, including farming salmon that are genetically more resistant to SRS, using optimal vaccination strategies, feeding the fish with functional and high-performance diets, ensuring good farming conditions, and only performing appropriate and necessary handling.

At the end of 2018, it was defined that all salmon farming centres that are part of the Pincoy project need to meet a set of minimum requirements, including optimal scenarios and minimum standards for fish genetics, vaccines, food, good practices, the origin of the fish and the planting season. In 2019, the centres in Cermaq and Blumar already aligned with these standards. Salmones Camanchaca joined the project at the end of 2019 and is currently working towards alignment.

In early 2019, the project opened the bidding process for new analysts to review the data and results of the first stage of the project. Later in the year, the Pincoy project team also started working on an Animal Welfare Score in Freshwater, and began to prepare a Manual of Good Practices and train Pincoy salmon centre managers on how to implement it. At the same time, the teams introduced homozygous Aquagen eggs into the Pincoy centres (1,000,000 in Blumar in November and 2,000,000 in Cermaq in December) as a tool to improve genetic resistance against SRS disease in the salmon.

To disseminate information on the project and help educate the industry on best practices, we launched a website in 2019 at www.proyectopincoy.com and a presence on LinkedIn, with the goal of obtaining 1,000 followers during the first year. We also held interviews with specialized media and presented in industry seminars. The Pincoy Project was featured in the "Challenge 2030" program on a local cable channel, telling the story of its work through the salmon life cycle.



Skretting Ecuador, through its #YoMeSumo programme, collects waste together with the community to avoid contaminating the surrounding mangroves and neighbouring rivers. This year, the team collected nine tons of waste.

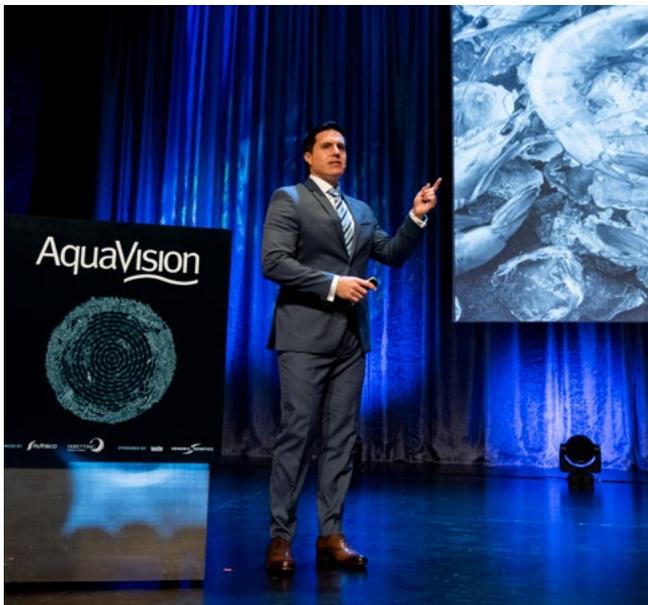




AquaVision & Agrivision

Nutreco has a 24-year history of hosting the annual industry conferences, AgriVision and AquaVision. These conferences alternate and are typically two-day events that attract over 400 c-suite executives to share experiences, network and be inspired by compelling speakers around innovation and sustainability in the private sector.

In the past, keynote speakers have included Madam Secretary Madeline Albright, Professor Michael Porter, the late UN Secretary General Kofi Annan and other distinguished guests. In 2019, AgriVision was cancelled and will resume in 2021.





Further partnerships

Nutreco engages in several platform groups and committees aimed at improving the sustainability attributes of systems and raw materials, including the following:



Aquaculture Stewardship Council (ASC)

The ASC, established in 2010, is arguably the most stringent, robust and credible environmental and social standard in the farmed seafood sector. Currently, over 1,850,000 metric tonnes of farmed seafood have been independently certified to be in compliance with the standard. Nutreco's Sustainability Director sits on the Supervisory Board of the ASC. Nutreco and Skretting representatives have been engaged as Steering Committee stakeholders or as Chair or Director of the Council's Supervisory Board since 2004 (pre-ASC standards development). At Nutreco, we are very proud of our role in the start-up and ongoing governance of the ASC. During 2019, the ASC Board approved several new standards (Marine Fish, Flat Fish and Feed) as well as standard revisions (Salmon) to ensure they were up to date with current technology and trends.

Cerrado Manifesto Statement of Support Group

Established in 2017, Nutreco was one of 23 founding member signatories to the Cerrado Manifesto Statement of Support (SoS). The SoS has become the world's largest business-driven group calling for immediate action in defence of Brazil's Cerrado savanna by supporting local and international stakeholders. Today, there are 150 company signatories to the SoS across agro-industrial, farming and food processing, finance, packaged consumer goods, retail and foodservice and other supporter groups. Its key focus in 2019 was supporting the local work by the Cerrado Working Group in finding business solutions to eliminate legal and illegal deforestation in the Cerrado biome (encompassing three Brazilian states) with the creation of a new International Fund. Nutreco was one of three "early movers" committing funds to support the future solution, along with UK food retailer Tesco and Norwegian salmon exporter Grieg Seafoods. The international market awaits the outcome of Brazilian multi-stakeholder negotiations to apply the funds to reward best actors.



European Feed Manufacturers' Federation (FEFAC)

Nutreco is a member of the FEFAC Sustainability Committee, which meets four times per year in Brussels to address sustainability initiatives associated with the European feed industry. A positive outcome of this committee's work during 2019 was the drafting of the FEFAC Sustainability Charter, that the Board should approve in early 2020, as well as the decision to revise and update the current FEFAC Soy Purchasing Guidelines.



International Fishmeal and Fish Oil Organization – Responsible Sourcing (IFFO-RS)

The Global Standard for Responsible Supply (IFFO RS) has become the leading independent business-to-business certification programme for the production of marine ingredients. Skretting is a member of the IFFO RS Governance Board. The main purpose of the standard is:

- To ensure that whole fish used come from fisheries managed according to the FAO Code of Conduct for Responsible Fisheries.
- To ensure no Illegal, Unreported and Unregulated fishery raw materials are used.
- To ensure pure and safe products are produced under a recognised Quality Management System, demonstrating they are free from potentially unsafe and illegal materials.
- To ensure full traceability throughout production and the supply chain.

Peruvian Anchoveta Fishery Improvement Project (FIP)

One of the most important fisheries in the world, the Peruvian anchovy fishery is engaged in an FIP to reach a “certifiable status” according to the guidelines of the Conservation Alliance for Sustainable Solutions (CASS). The FIP was launched in 2017 after the signature of a memorandum of understanding between the Peruvian National Fisheries Society (SNP) and the Center for Development and Sustainable Fisheries (CeDePesca). The Action Plan for the FIP includes an update of the former re-assessment against the MSC standard, an evaluation of the trophic impacts of the fishery, the improvement of controls for the small-scale fleet and a better understanding of the direct impacts on other species, through a private on board observers program. Feed producers Skretting and Cargill Nutrition support the FIP and participate on the Steering Committee.

There is a strong sense that the level of exploitation of this fishery must take into account the ecosystem needs, given the status of Peruvian anchovy as a low-trophic-level species. A more specific analysis on the trophic needs of species that prey on Peruvian anchovy has been completed by the Marine Institute of Peru (IMARPE). CeDePesca prepared a background document on trophic interactions using a compilation of relevant data, and IMARPE agreed to select an international expert – Dr. Eduardo Morteo – to collaborate with other researchers to conduct a full analysis. After receiving comments from the Working Group, IMARPE adopted a working plan to conduct the analysis on trophic needs, and this analysis is now completed.

IMARPE has also committed to updating researcher Jorge Tam's paper entitled "Relationship between Peruvian anchovy and other ecosystem components." In 2019, the documentation on how to achieve fishery management of the Peruvian anchoveta, including an ecosystem approach, was completed. The improvement project is planned to be completed in 2020.



Roundtable for Responsible Soy (RTRS)

Nutreco has been a member in good standing of RTRS almost since its inception. We are committed to this multi-stakeholder platform and participate in working groups and an initiative Steering Committee focused on mainstreaming responsible soy and deforestation-free soy in the value chain.

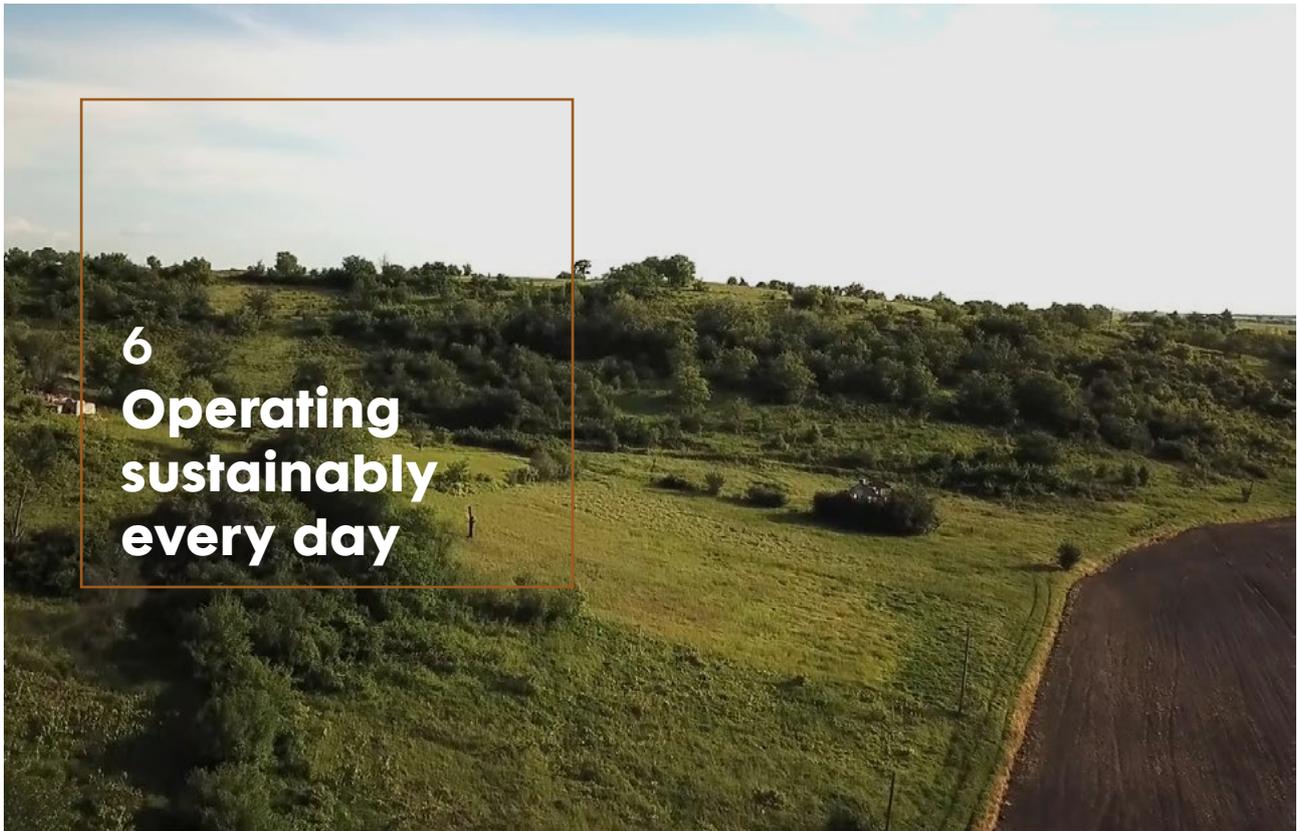
Roundtable on Sustainable Palm Oil (RSPO)

Nutreco has been a member in good standing of RSPO almost since its inception. We are committed to this multi-stakeholder platform, and we purchase green palm certificates for all our palm oil products, excluding kernel oil.



Sustainable Fisheries Partnership (SFP)

Skretting is a sponsor of the Sustainable Fishery Partnership (SFP). SFP fills a specific gap between the industry and the marine conservation community, utilizing the power of the private sector to help less well-managed fisheries meet the environmental requirements of major markets. Their work is organized around two main principles: making available up-to-date information on fisheries for the benefit of major buyers and other fisheries stakeholders and using that information to engage all stakeholders along the supply chain in fisheries improvements and a move toward sustainability.



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Of course, we have the most influence on what happens in our own business, where our passion for sustainability is woven into everything we do. We are committed to achieving continuous improvement within our own operations and beyond.



Our people

One of the cornerstones of Nutreco's strategy is to employ talented and passionate professionals. Our committed employees, who feel proud to work for a global leader in animal nutrition and aqua feed, are the most important ambassadors of our employer brand.

In line with this strategy, our human resources strategy consists of three focus areas:

Global talent and management development

During 2019, we continued to strengthen our talent management strategy. Over time, we are making our talent review and succession management processes, which cover over 100 senior positions, more focused and efficient, establishing quality development plans for employees and ensuring leadership succession.

Because talent acquisition is about finding the right person for the right position at the right moment, in 2018, we identified a group of 60 emerging talents working across 23 different countries and enrolled them in a special training programme. In 2019, we continued to track their progress closely. We will keep focusing on talent in 2020, taking different approaches for different groups of employees within the company, to further develop a unified structure of leaders, professionals and experts. By promoting a working environment consistent with our values (caring, collaborative, innovative and capable) we are making sure our talent management structure supports shared success by Nutreco and our employees. Our parent company, SHV's, young talent programme (the 2:2:2 programme) also continues to successfully create opportunities for career growth. During 2019, eight young talents remained active in this program, and 10 have moved into management positions and strengthened our senior management succession pipeline.



"To do great things, you need great people more than anything else. Moreover, to achieve our ambitious objectives, we need our people to perform their best and develop to their full potential. Our managers play an active role in identifying, developing and growing our people. This adds to our ambition to be a recognized top employer in our market,"

Martijn Roelants

Chief HR Officer at Nutreco

Developing capabilities for the global market

We have remained focused on building capacity to serve both our local and global client base in the best way possible. As part of this, we made considerable progress in establishing a strong and consistent leadership approach, and in developing innovative and commercial skills.

In terms of leadership development, in 2019, we successfully trained 30 high-potential, emerging leaders through our Jump programme. In addition, six of our business management teams have been strengthened by receiving dedicated coaching and team dynamics sessions.

In 2020, we are starting a comprehensive programme on commercial excellence to support our workforce in deepening client relationships and enhance our ability to translate customer requirements into practical solutions. We will offer extensive coaching, focused performance management and learning opportunities to develop our commercial and entrepreneurial capabilities, for both our local and global client base. This programme was kicked off in early 2020 with a global strategic session that was attended by over 200 sales colleagues.

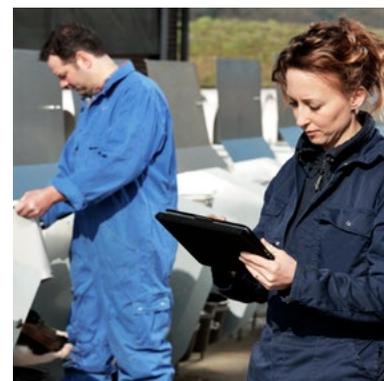
As part of our strategic goals, we deployed our global catalogue of jobs in 2019. This empowers our colleagues to drive their careers at Nutreco and creates transparency in our internal application processes. For 2020 and beyond, we will take this to the next step by defining career opportunities for our key functional areas and offering tailored training and learning opportunities to help our colleagues realize their career potential.

We continue to encourage our employees to work internationally to bridge (cultural) differences and increase cooperation between our functions and departments. During 2019, we hosted over 45 international expatriate assignments.

Building our innovative and diverse culture

In the last quarter of 2019, we conducted a global engagement survey among all our employees. This survey was well received, with a 76% aggregated response rate (87% for employees with a company email address) and above-market engagement score. Through the survey, employees identified our company's strengths as being: "ability to learn new skills," "meaningful work," "fair reward" and "strategic direction." The areas for further development they identified included: "diversity and inclusion," "management support" and "goal setting / performance management." We have created action plans to work on specific findings for countries and departments and have encouraged and supported managers in starting discussions around engagement with their teams.

We actively encourage diversity of gender, geography and thinking style in our company, as we believe that more diverse teams lead to better decision making, which is a key business driver for us. Although we have made significant progress in improving diversity of nationality on our leadership team, our wider senior management is still predominantly male. However, the talent pipeline looks promising, as 45% of our emerging talents are female. Also, of the senior managers appointed in 2019, 25% were female, compared to our target of 20%.



In 2019, the Executive Committee approved a baseline and project plan to further develop employee diversity and inclusion. For 2020, we have set a mandatory KPI on gender diversity of 33% female hires for senior positions, in order to reach our 2030 ambition of having 30% women in senior positions.

We expanded the intercultural training opportunities we offer, such as our internal Cultural Awareness Programme. This programme is designed to help employees gain a better understanding of cultural differences, so they can develop strategies to enhance communication and improve collaboration. In total, over 550 employees have used the platform to improve their intercultural awareness. The programme is also embedded in our cross-country team development and expatriation process.

Employees by gender and employment type	2019
Number of employees at year end	12100
Full-time	94%
Part-time	6%
% women	27%
% men	73%

Per division	2019
Corporate	267
Skretting	3,519
Trouw Nutrition	8,314

Per Continent/Per Cluster	2019
Africa	450
Asia Pacific	1,634
Europe	5,797
North America	2,148
South and Central America	2,071

Employees by gender in 2019			
Division	Female	Male	Not declared
Corporate	101	164	2
Skretting	615	2,904	0
Trouw Nutrition	2,475	5,834	5
	26.4%	73.6%	0.1%





Ethics and compliance

During 2019, Ethics & Compliance Committees, consisting of executive staff, met on a monthly basis at Nutreco Corporate, Skretting and Trouw Nutrition. During 2019, the Committees reviewed the entire Ethics & Compliance programme and discussed major outstanding developments.

In 2019, we introduced completely restated policies on Competition Law Compliance, Trade Sanctions & Export Controls, Fraud and Third-Party Due Diligence. Together with policies on Privacy and Anti-Bribery and Corruption, these are the core of our Ethics & Compliance programme.

To translate our Ethics & Compliance policies into clear everyday guidance for our employees, a new Code of Conduct was rolled out across the company in 2019. The Code builds upon our values and provides our standards for business and personal conduct. It is published on our website and has been translated into 20 languages. The launch campaign included a CEO video, management presentations, a new e-learning module and posters for the walls of our plants and office buildings.

The Code has succeeded in raising awareness around ethical conduct in our company. The engagement survey we conducted in October 2019 showed particularly high scores on the statements, "I understand Nutreco's standards of business conduct and ethics" and "I never feel pressured to compromise Nutreco's Code of Conduct or policies in order to achieve business goals."

The new policies and Code of Conduct come with several disclosures, approval, and reporting requirements for our operating companies. To facilitate working with the new policies in our businesses, we have created the Nutreco Compliance Risk Management Framework. Reconciling control activities, responsibilities, monitoring and reporting, the Framework provides detailed insight into compliance efforts deployed at the operational level at Nutreco. It was introduced during the last quarter of 2019 and will generate quarterly reports across our organization.

To keep track of changes in the risk universe, a broad ethics and compliance risk assessment was finalized in the first quarter of 2019 at corporate and divisional level. At OpCo level, risk assessments were performed on Competition Law Compliance and Anti-Bribery and Corruption.

Starting in the second quarter of 2019, we rolled out new e-learning on Anti-Bribery and Corruption and Competition Law Compliance to all employees with system access.

In 2019, we received around 30 reports through our Speak Up whistleblower line; all were handled with due care. Ethics & Compliance-related issues were also reported directly to the Ethics & Compliance Officers or other management. We implemented remediation measures where required, including disciplinary measures against employees involved.



Feed-to-food quality and safety

Our approach to food safety and sustainability is based on Nutrace, the common quality management programme we share across Skretting and Trouw Nutrition. Nutrace covers the entire supply chain through collaboration with internal and external partners. It starts with suppliers, where we use rigorous selection criteria and execute audits to help ensure our raw materials meet optimal safety and quality standards. Then, it continues with building food safety and sustainability management systems that contribute to the production of safer, healthier and more sustainable seafood and land animal proteins for the world's growing population.

"Our Quality department is a key sparring partner for Operations & Supply Chain."

Alexandre Grillet
Global Operations Director Trouw Nutrition



We will make our customers more successful by providing healthy animal nutritional solutions through our fully integrated products, models and services. Quality is now embedded in Trouw Nutrition's innovation process. New and running innovations follow a stage gate process before they are fully implemented in the marketplace.

"Quality Assurance is a crucial component of the necessary glue between the discovery and the delivery of innovations."

Filippo Larceri

Innovation Process & Portfolio
Manager Trouw Nutrition



Trouw Nutrition has defined the vision of their quality strategy, "Quality Feeds Value." Their aim is to become the partner of choice of integrators, global accounts, feed millers and farmers, thanks to their unrivalled reliability and the value-adding quality of their products. They build and maintain customers' trust and loyalty by safeguarding the highest feed quality, always managing the unpredictable well and protecting the integrity of their own brands.

"Together with customers and suppliers we continuously work to strengthen our quality standards and contribute to the production of safer and healthier animal proteins for the world's growing population."

Nina Flem

Skretting's Quality Affairs Director

Enhancing sustainability within the supply chain

We believe the most significant part of Nutreco's environmental footprint is in our supply chain, the sourcing of the ingredients we use to make our products. The first step in engaging with our ingredient suppliers to help make our supply chain more sustainable is asking them to sign and agree to comply with our Supplier Code of Conduct (SCoC). This document, available on our website, is divided into three components – general products, agricultural products and marine products – and covers criteria addressing issues such as biodiversity loss, child labour, pesticide use, water use, antibiotic use, traceability and fishery management.



By reducing the thickness of the packaging and using 98% recycled plastic, Skretting Italy saves 56 tons of plastic packaging per year and reduces carbon emissions by 166 tons.



The second step is to evaluate whether suppliers' products, ingredients and geographic origins are high or low risk by filtering them through a risk analysis tool. The third level of engagement is to submit suppliers to quality audits with a sustainability component (see Auditing suppliers).

Where relevant, as seen throughout this report, we work together with other stakeholders to tackle challenges. This year, Skretting joined forces with salmon feed producers Cargill Aqua Nutrition, Biomar and Mowi as well as certification organization ProTerra, and Brazilian soy producers to take responsibility for the broader impacts of the salmon value chain. The "Aquaculture Dialogue on Sustainable Soy Sourcing

from Brazil” group met and took action on traceability, transparency, supplier code of conduct and deforestation. This consortium, together with Brazilian soy protein concentrate (SPC) producers Caramaru, Imcopa and CJ Selecta, worked together on setting up a new traceability system. Each shipment delivered to feed producers will now include information about the municipalities and states where the soy from that batch is sourced. Caramaru, Imcopa and CJ Selecta now also have a semi-automated tracking capacity to determine the sourcing details of deliveries. These are significant improvement in the traceability of bulk commodities.



The Google-powered AgroTools database is the backbone of this traceability system. It issues certificates for each farm that is part of the ProTerra program. Detailed information about the farm's deforestation and other illegal activities is available, if needed. This means that if a farm is accused of non-compliant activities, or has violated the agreement, it is easier and faster to determine if and when this occurred, and if the resultant product has been delivered to European salmon feed producers.



Supplier Code of Conduct

Nutreco has over 4,000 direct suppliers, covering a spend of €4.2 billion. Last year, we reported that suppliers representing 84% of our direct spend had signed their commitment to comply with our Supplier Code of Conduct (SCoC).

During 2019, Nutreco transferred over to Unite, a unique procurement reporting platform that enables us to automate reporting on our main indicators. All of our Supplier Code of Conduct documents have been stored in our integrated quality management (IQM) system since its launch in 2017. The Unite system cross-references spend data and the supplier information with the IQM system to ensure the presence of a signed SCoC.

By the end of 2019, 75% of our spend with suppliers had been converted to the Unite platform. Of this amount, 85.9% was covered by signed SCoCs. We have not yet been able to precisely assess the remaining 10.9%. For that reason, it is difficult to compare the 2019 and 2018 results. Our priority for 2020 is to transfer all procurement systems to Unite so that we can identify all suppliers that have not yet signed the SCoC.

Auditing suppliers

Our sustainability commitment requires that we look at responsible sourcing not only from an economic point of view, but also in terms of environmental protection and social development. Therefore, in coming years, we will continue to work with current and potential suppliers to provide the best possible alternatives for Feeding the Future in a sustainable way and keep strengthening the internal procedures of our IQM platform for monitoring the quality assurance and control of all our key business processes. This is part of our Supplier Development Programme.

In addition to local supplier audits in different regions of the world, 76% of Skretting's and Trouw Nutrition's combined global audit programs on ingredient/manufacturer/supplier combinations included sustainability; our ambition is to reach 100% in 2020. Moreover, we have introduced specific assessments in the areas of food safety, HSE and sustainability for the packaging materials that we buy.

During the year, we collaborated with our main suppliers to create awareness of the needs of our markets and the use of biosecurity to avoid possible risks within the supply chain.



Taking responsibility within our own operations

Nutreco is committed to being a responsible company – and this starts from within. We make significant efforts to responsibly manage our own operations and seek ways to continuously improve what we do.

Nutreco currently operates 104 plants around the world, including 78 Trouw Nutrition plants, producing 7.2 million tonnes of feed, feed products and poultry meat products each year, and 26 Skretting plants, producing 2.3 million tonnes of feed annually. This footprint is always evolving, with new plant constructions or acquisitions, closures or plant extensions underway in most regions. As reported in Our operation's environmental footprint, we continually monitor and report on five key environmental and social KPIs and improve our data quality by having a third party take a critical look at our reporting process. We directly translate our sustainability mantra of “producing more with less” into our operations with a focus on operational efficiencies, particularly in energy and water use and waste products sent to landfill.

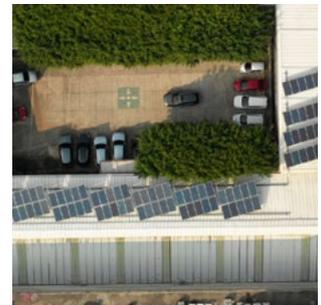
Our Operations function is closely aligned with our product innovation processes to create alignment between operational criteria and product developments, ensuring new products are well planned and have no negative impacts.

Nutreco's divisions each have an operations director responsible for overseeing operational and supply chain capability and efficiency, capital investment programs and industrial automation. Each of our operating companies around the world has an operations manager responsible for effectively running our plants, including maximizing efficiencies and minimizing environmental impact and, of course, ensuring safe operations. Our plants are also supported by a network of process engineers, manufacturing specialists, product specialists, automation and IT specialists and researchers.

As part of our capital project development programme we have processes in place to “design in” operational efficiencies whenever an expenditure proposal is made and, where possible, prioritize renewable energy options.

Operational excellence

Nutreco works to increase efficiency and prioritize renewable energy wherever possible, and through the global Operations teams at our Skretting and Trouw Nutrition divisions, we are constantly looking for opportunities to operate more sustainably. Our efforts include buying green energy, installing solar panels and optimizing



Trouw Nutrition Guatemala finished a solar panel project in March 2019, installing 100 solar panels that will provide about 6000 kWh of energy per month – or almost 50% of the production plant's total energy usage.

processes in our factories by implementing global operational excellence projects. Our divisions have already performed many opportunity assessments to find areas where they can be more efficient, and they will continue to assess all of the OpCos.

For example, the Trouw Nutrition team has been searching for productivity increases by means of throughput improvements, which result in a reduction of energy consumption intensity. Some of these improvements include identifying and resolving air pressure leakage in our systems or focusing on the raw material footprint, both of which lead to reduced consumption of resources.

Local Trouw Nutrition Operations departments are also continuously investigating how to reduce energy consumption in their environments. For instance, a project in the United States was focused on making lighting more efficient, using motion detection and high-efficiency lights. In another U.S. example, the team at the Trouw Nutrition factory in Maine reduced the temperature in its spray dryers and changed nozzle conditions to use less gas per ton of production and reduce the chance of dioxin formation.

The Trouw Nutrition team in our Iberian cluster implemented Project Polar cold. Their goal was to control and reduce the consumption of energy in steam boilers in three ways, through:

- Reverse osmosis equipment that improves the quality of the steam boiler's supply water, saving energy by reducing the need to flush the boiler.
- Heat exchangers that can capture the heat in the water coming from steam boiler flushing, allowing it to be reintroduced into the system through the boiler feed water.

Economizers that enable us to capture the heat from the combustion gases coming from the steam boiler, so it can also be reintroduced through the boiler feed water. In 2019, Trouw Nutrition's European operations received two government subsidies supporting the installation of solar panels on two factories. We are now further investigating the grants for solar panel installation in other locations. Other projects helping us decrease energy demand and greenhouse gas emissions include the optimization of drier efficiency and output at our most energy-intensive factory, in Sloten, the Netherlands, as well as a project to switch gas and diesel forklifts to electric – to be continued in 2020.

Besides energy savings in the plant, our operations also look at making logistics more efficient. In 2019, Skretting joined forces with Cargill to reduce their environmental impact in Norway by collaborating on feed transport. Instead of having ships with Cargill feed sailing right behind ships with Skretting feed along the Norwegian coast, the two companies began to share vessels, limiting shipping traffic and reducing the greenhouse gas emissions of fish feed transport by one-fifth.

The two companies believe that, over time, the collaboration will not only create transportation efficiencies but increase service levels for Norwegian salmon farmers and provide a better basis for innovation and development.

Greenhouse gas reduction equal to 7,500 cars, or 15-20 million kg of CO₂ per year.

“We have named the collaboration ‘Fjordfrende,’ which in English means fjord friend, because it is about working together for fjord-friendly transport. With this cooperation we will increase the utilization rate of our fleets and significantly reduce our environmental footprint,”

Fredrik Witte

Managing Director, Cargill Aqua Nutrition, North Sea

“We are creating an efficient system by optimizing capacity over time, giving aquaculture a better distribution model. Load capacity will be better utilized, there will be shorter sailing distances and investment opportunities will increase,”

Erlend Sødal

Managing Director of Skretting Norway.

As Nutreco builds new plants in 2020 and beyond, we will continue to increase efficiency and sustainability and reduce energy usage. We have a strong global team in place to ensure knowledge is shared across the divisions.

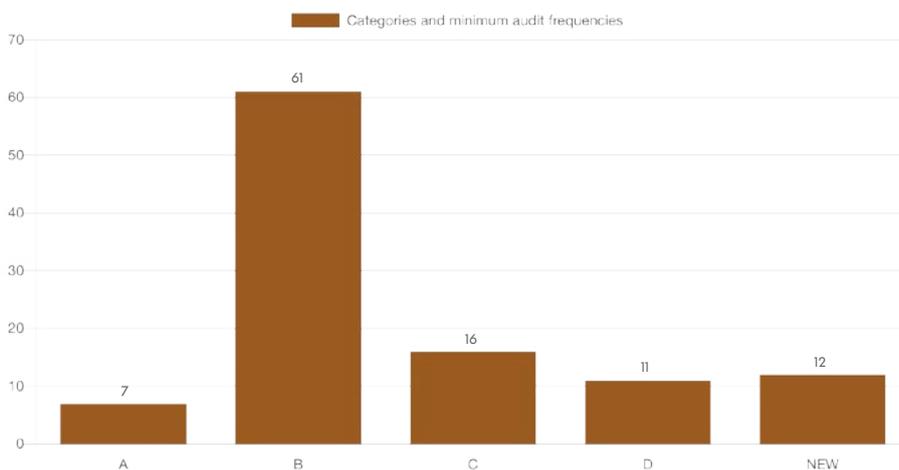
Safety and accidents

Health and Safety is at the core of how we do business – nothing is more important. This is emphasized in our Nutreco Health, Safety and the Environment (HSE) Policy. The rules and standards derived from this Policy, which apply to all Nutreco operations, are mandatory, without exceptions.

Audits and inspections

In 2019, we executed 41 audits and inspections in 17 countries including Brazil, Canada, Ecuador, Egypt, Mexico, Myanmar, South Africa, the United States, Zambia and various European countries. Two high-risk sites were identified; one was immediately addressed and the other had many concerns, leading us to plan the construction of a new plant. The frequency of audits by Nutreco’s Corporate HSE team is fully determined by the rating given at the previous audit.

Status of the HSE audit ratings at December 31, 2019



Categories and minimum audit frequencies:

- A rating: 1 every 6 yrs
- B rating: 1 every 5 yrs
- C rating: 1 every 3 yrs
- D rating: 1 every 2 yrs

New: newly built or acquired sites that have yet to be audited

Nutreco’s objective is to achieve at least a B-level rating for all its operations.

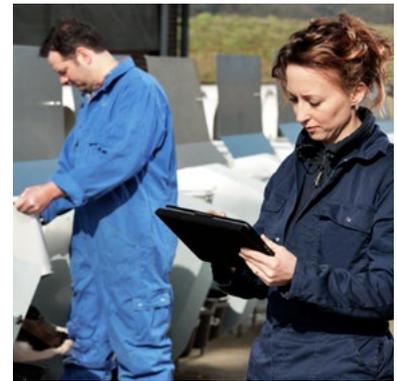
In addition to the more or less “standard” HSE topics, such as machine guarding, fire safety and working at a height, there are a number of topics to which we give special attention within Nutreco and for which we have established special programmes. These include: the risk of exposure to micro-ingredients applied in our feed and premixes, dust explosion hazards and manual handling.

Nutreco’s operations handle large volumes of mainly commodity materials, which are often supplied and delivered in bags. Nutreco aims to limit the bag weights to a maximum of 25 kg at all its operations, which can be challenging.

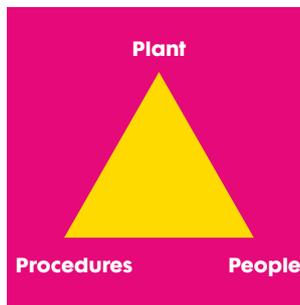
Safety first

In 2019, we continued our global safety culture programme with a focus on the rollout of eight “life-saving rules,” defined by our corporate HSE department to help control the most high-risk activities taking place at Nutreco. Every month, one life-saving rule was communicated company-wide through videos, posters and specially designed logos. In late October, we organized our second annual global safety week. Safety champions across our OpCos were challenged to organize activities related to the life-saving rules; in total, more than 70 activities took place.

The work will continue into the first part of 2020, with the publication of a life-saving e-learning module. Later in the year, we plan to hold our third global safety week in cooperation with the other SHV companies.



Introduction to life-saving rules during Safety Week



Incidents

In 2019, 107 Nutreco accidental lost time injuries (LTIs) were reported through all Nutreco premises, a reduction of 29% compared to 2018. (note: LTIs at Nutreco include light duty cases, where the employee can return to work, with some limitations, on the next working day).

The frequency of LTIs per 1,000 employees (as employed at the end of 2019) was:

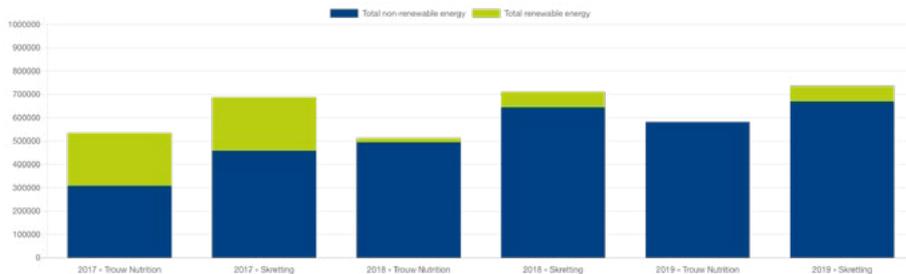
	2014	2015	2016	2017	2018	2019
Skretting	55	32	38	40	51	30
Trouw Nutrition	116	102	125	125	99	77
Total Nutreco	15.5	12.2	14.1	13.7	12.6	9.1

In 2009, the LTI frequency was 24.3 per 1000 full-time employees (FTEs). The following year, on the path to an accident-free company, we set an intermediate objective to at least halve this number by 2020 to below 12.1. We are very proud to have achieved a level far below this target!

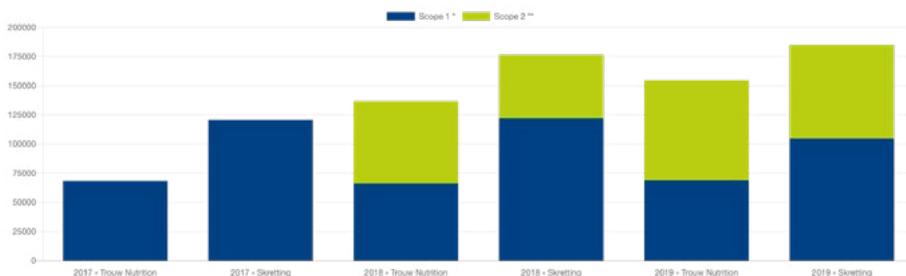
Our operation’s environmental footprint

Every quarter, we continue to monitor, record and report on our five environmental and social manufacturing KPIs. We began this practice in 2016, and now all production sites report on these KPIs through our financial reporting systems. We continue to strive for improvement and capitalize on our engagement with Sustainalize (the consultancy firm assessing our sustainability data) to give real-time feedback to our operational leadership with the goal of improving accuracy and clarity. The table below shows our performance on these KPIs in absolute numbers for all OpCos from 2017 to 2019. The decrease in renewable energy consumption from Trouw Nutrition is attributable to the closure of sites in Brazil that consumed biomass and woodchips.

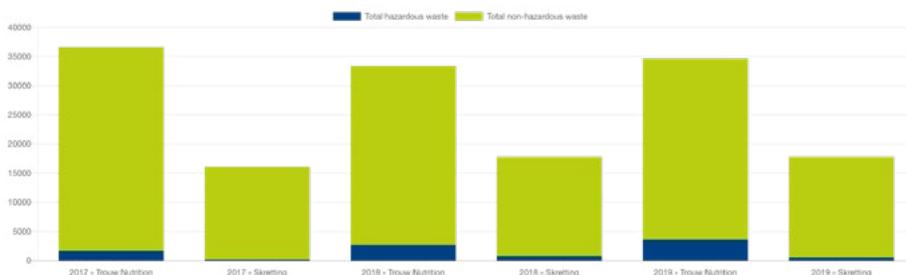
Energy consumption (MWh)



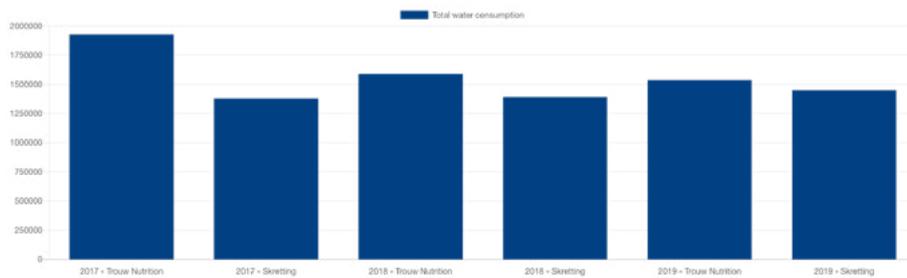
Greenhouse gas (GHG) emissions (tonnes CO₂, eq)



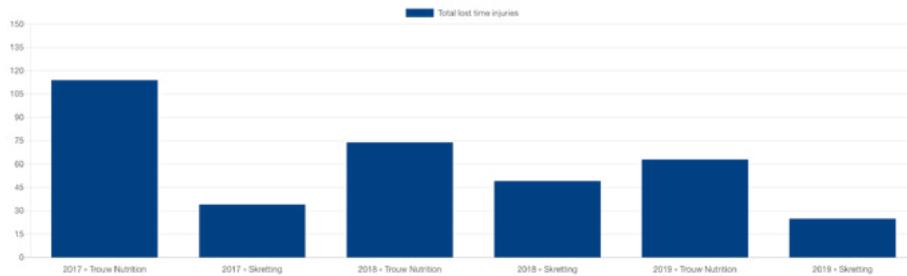
Waste type (tonnes)



Water m³



Lost time injuries



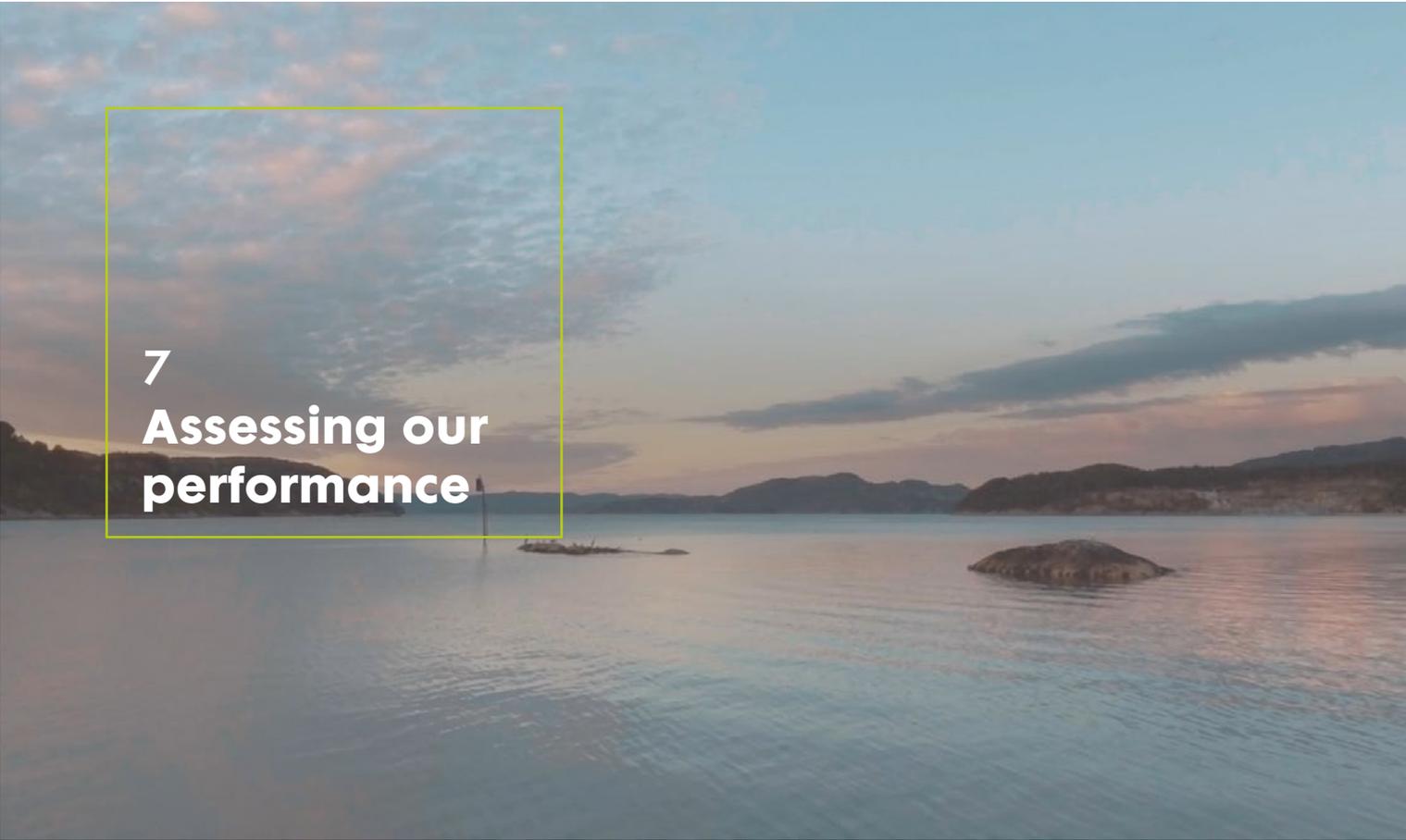
Nutreco utilizes the Intergovernmental Panel on Climate Change (IPCC) Tier Concept methodology to determine its CO₂e emissions. Our preliminary approach is to use set and published international references (Tier 1) to convert energy consumption into CO₂e emissions. When more precise references are available, our approach is to use nationally published references (Tier 2) and country-specific conversion factors to calculate emissions from electricity consumption.

The indicator summary below compares our performance from 2019 to 2018, normalised per tonne of product sold.

Despite the increase in absolute values in 2019, total feed produced also increased, with significant volumes from Hi-Feed in Canada added to our reporting. When compared according to intensity, in relation to the volumes produced, we see an improved performance across all indicators. Please note a difference in the LTIs reported in the table below as compared to the LTI data reported per 1000 FTEs in the table above in Safety and accidents. This difference (107 vs. 88 LTIs for 2019) reflects the fact that the data in the table above (88 LTIs Nutreco total in 2019) includes incidences in our OpCos (Operations) only, while the data in the previous section (9.1 LTIs per 1,000 employees for Nutreco total in 2019 = 107 LTIs in Safety and accidents includes incidences from our OpCos (Operations) plus hatcheries and offices and any OpCo that may have closed (discontinued) within the year.

Year on year comparison of the five KPI's from 2018 to 2019

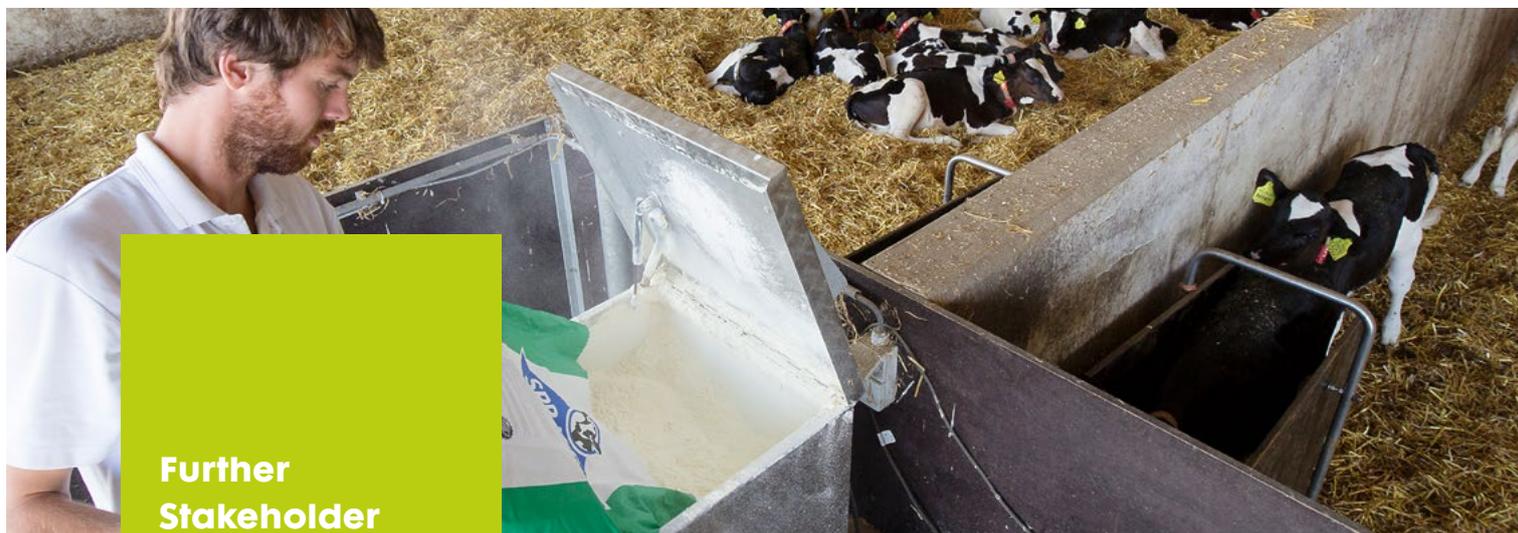




7 Assessing our performance

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To make sure that we stay focused on the right priorities, both in our sustainability projects and our everyday work, we continually assess the issues most important to our stakeholders and track our performance on them.



Further Stakeholder Engagement

We believe that engaging our internal and external stakeholders is key to ensuring we invest the right focus and effort in continuous improvement and dealing with the complex issues that face the future of sustainable food. By carrying on active conversations with several stakeholder groups we benefit from their diverse perspectives as we explore our solutions.

Stakeholder group	Their concerns and expectations	How we engage, and how often	Main topics and activities addressed in 2019
Employees	<ul style="list-style-type: none"> - What is the company strategy? - What is our financial performance? - What is the company going to do around cost cutting? - Do we need to close down our factory? - How can I make a (international) career at Nutreco? 	<ul style="list-style-type: none"> - Regular (local) townhall meetings - Monthly broadcasted interviews with leadership - Nutranet (intranet) announcements - Divisional strategy updates (annual or bi-annual) - Annual local community days - Annual European Works Council - Regular local Works Council 	<ul style="list-style-type: none"> - 2024 long-term strategy - 2019 financial performance - Restructuring activities (Marketing, Trouw Nutrition Specie Councils) - Company performance in the industry (incl. awards) - Integrations (CA) or benefit harmonization (global)
Government	Protection of consumer and animal health	<ul style="list-style-type: none"> - Showing leadership through organization of and participation in relevant solutions-focused stakeholder platforms - Further developing Nutrace - Redefining our Quality programme - Launching nutritional solutions 	Establishment of new regulatory possibilities for innovations (e.g., nutritional solutions as part of integrated multi-stakeholder “feed-farm-health” concept)
Food retail and foodservice	Deforestation for commodity production	<ul style="list-style-type: none"> - Engaging with SoS Cerrado Manifesto, RTRS and FEAC <p>See Sharing our dilemmas for details</p>	Dealing with the lack of “farmer-level” granularity when purchasing bulk commodities in major ports

Stakeholder group	Their concerns and expectations	How we engage, and how often	Main topics and activities addressed in 2019
Food retail and foodservice	Illegal, Unreported & Unregulated (IUU) fishing and modern slavery	Engaging with SeaBOS See Sharing our dilemmas for details	Steps to eradicate these illegal activities
Non-Governmental Organizations (NGOs)	Biosecurity in aquaculture to reduce spread of farm disease	Raising awareness and collaborating with stakeholders on existing, commercially available technology	Industry's available functional feeds to reduce antibiotic usage in aquaculture
Non-Governmental Organizations (NGOs)	Deforestation for soy commodity production	See Our Partnerships	Transparency and traceability around deforestation-free soy
Academia	R&D collaboration and validation of animal performance on circularity, health (AMR reduction) and welfare, and emissions reduction	<ul style="list-style-type: none"> - Setting up or intensifying collaborative projects - Engaging with over 80 academic institutions around the world 	Product development and joint projects



Global Reporting Initiative (GRI) Index

SRS	Disclosure	Reference	Omission/Explanation
GRI 102: GENERAL DISCLOSURES 2016			
1. Organizational profile			
102-1	Name of the organization	Nutreco N.V.	
102-2	Activities, brands, products, and services	Nutreco brands, customers and suppliers https://www.nutreco.com/en/Corporate/ https://www.nutreco.com/en/brands/	
102-3	Location of the organization's headquarters	Amersfoort https://www.nutreco.com/en/Contact/	
102-4	Number of countries operating	Nutreco brands, customers and suppliers	
102-5	Nature of ownership and legal form	Nutreco N.V., https://www.nutreco.com/en/Corporate/legal-information/	
102-6	Markets served	Nutreco brands, customers and suppliers	
102-7	Scale of the reporting organization	Our people; Taking Responsibility within our own Operations; Our value chain	Nutreco is part of SHV. SHV gives a fair qualitative overview per company owned and discloses financial information at an aggregated level. It discloses net sales, income from operations, net income as well as its financial position, ratio information and cash flow information. For more information please read the SHV report on www.shv.nl
102-8	Information on employees and other workers	Our people	We are currently unable to provide a breakdown of the number of employees by employment contract. We have implemented a new HR system. However, we are not able yet to report the breakdown. We are currently working on the implementation of a function to report the breakdown in future.
102-9	Supply chain	Our value chain	

SRS	Disclosure	Reference	Omission/Explanation
102-10	Significant changes to the organization and its supply chain	Organizational divisions; Feed-to-food quality and safety, Supplier code of conduct	
102-11	Precautionary Principle or approach	https://www.trouwnutrition.com/globalassets/nutreco-corporate/publications/sustainability/2016/nutreco-sustainability-vision-2020.pdf	
102-12	External initiatives	About this report	
102-13	Memberships of associations	Our partnership involvement with multi-stakeholder platforms	
2. Strategy			
102-14	Statement from senior decision-maker	CEO discussion	
3. Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	Our people, Ethics and Compliance www.nutreco.com/globalassets/from-root/nutreco-supplier-code-of-conduct.pdf https://www.trouwnutritionhifeed.com/contentassets/1e2258c18c9b4a08a3f42f305b7e4a4d/2015-code-of-ethics-brochure.pdf	
4. Governance			
102-18	Governance structure	Sustainability governance	
5. Stakeholder Engagement			
102-40	List of stakeholder groups	Further stakeholder engagement	
102-41	Collective bargaining agreements		This data is not currently unavailable. Working with the HR department to find a way to collect this in the future.
102-42	Identifying and selecting stakeholders	Further stakeholder engagement	
102-43	Approach to stakeholder engagement	Materiality; Further stakeholder engagement	
102-44	Key topics and concerns raised	Further stakeholder engagement	

SRS	Disclosure	Reference	Omission/Explanation
6. Reporting practice			
102-45	Entities included in the consolidated financial statements		SHV gives a fair qualitative overview per company owned and discloses financial information at an aggregated level. It discloses net sales, income from operations, net income as well as its financial position, ratio information and cash flow information. Read the SHV report on www.shv.com
102-46	Defining report content and topic Boundaries	Introduction; About this report	
102-47	List of material topics	Materiality	
102-48	Restatements of information		No restatements made.
102-49	Changes in reporting		No significant changes from previous reporting periods in the list of material topics and topic boundaries.
102-50	Reporting period	1 January 2019 to 31 December 2019	
102-51	Date of most recent report	22 april 2020	
102-54	Claims of reporting in accordance with the GRI Standards	About this report	
102-55	GRI content index	GRI content index	
102-56	External assurance	About this report	Nutreco did not obtain external assurance on the disclosures made in the report. Nutreco has contracted the external party Sustainalize to have a critical look at the sustainability data quality in Nutreco's 2019 Sustainability Report.

Material topics

Financial performance

103	Management approach disclosures		
201-1	Direct economic value generated or distributed	€ 6,410,600,000	

Environment

103	Management approach disclosures	Taking Responsibility within our own Operations	
302-1	Energy consumption within the organization	Our Operation's Environmental Footprint	
303-3	Water withdrawal	Our Operation's Environmental Footprint	
305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	Our Operation's Environmental Footprint	
305-2	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Our Operation's Environmental Footprint	
306-2	Waste by type and disposal method	Our Operation's Environmental Footprint	

SRS	Disclosure	Reference	Omission/Explanation
Employment			
103	Management approach disclosures	Our people	
405-1	Diversity of employees	Our people	
403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities	Safety and accidents	As Nutreco's focus of the main KPIs is within manufacturing, Nutreco considers only parts of the GRI disclosure relevant for steering.
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Feed-to-food quality and safety	
Customer Health & Safety			
416	Management approach disclosures	Feed-to-food quality and safety	
416-1	Assessment of the health and safety impacts of product and service categories	Feed-to-food quality and safety	



External report on sustainability data quality

To readers of the 2019 Sustainability Report of Nutreco



About this external report

In its 2019 Sustainability Report Nutreco reports on the sustainability matters that Nutreco identified as being material to the company and its stakeholders. The quantitative data on these indicators were compiled on the basis of Nutreco's reporting criteria and processes. We were asked by Nutreco to examine the reporting processes and controls and to assess the quality of the reported data in line with Nutreco's criteria. This report provides an overview of our work and summarizes our observations.

What is the purpose of our work?

We advise management on how to improve its sustainability reporting processes and controls, enabling management to safeguard the quality of the reported data in the 2019 Sustainability Report of Nutreco. We conveyed our observations and recommendations for improvement to Nutreco.

What did we look at?

Nutreco asked us to have a critical look at a selected number of indicators that are published in its 2019 Sustainability Report. These constitute the key sustainability indicators of Nutreco and are disclosed in the chapters “Taking responsibility within our own operations,” “Feed-to-food quality and safety,” “Our approach,” “Our people,” “Further partnerships” and “Enhancing sustainability within the supply chain”:

- Energy data
- CO₂
- Water withdrawal
- Waste
- Number of injuries
- Supplier Code of Conduct
- Nuterra Self-Assessment
- Workforce
- Sustainable palm oil
- Deforestation-free supply chains

How did we assess data quality?

We started our work in September 2019 and finalized our procedures with the publication of the 2019 Sustainability Report. Altogether we worked approximately 300 hours on assessing data quality. We did this by conducting interviews and by assessing emails, systems, documents and spreadsheets. We performed, amongst others, the following key activities:

- We visited six local operating companies in six countries. During these site visits we assessed the data that was reported to head office at the end of the third quarter. Part of our work consisted of assessing local reporting practices in line with Nutreco’s reporting criteria and reconciling the reported information to source data (e.g. invoices, local administrations, etc.);
- At head office level we assessed the internal validation process that is in place to review data that was reported by local operating companies that were not visited by us.
- We assessed the reporting process and related controls by performing over six interviews with people involved in the sustainability reporting process, which included walk-throughs on data that are reported on head office level;
- We assessed the narrative assertions in the 2019 Sustainability Report with regard to the indicators that Nutreco asked us to look at;
- We assessed the application of the GRI guidelines and the GRI table in the 2019 Sustainability Report;

How did we follow up from our findings?

Nutreco is continuously developing its sustainability reporting system and policies as explained in the 2019 Sustainability Report. Our assessment has led to some important recommendations for further improvement. We shared our detailed observations and recommendations for improvement with Nutreco. Misstatements and data errors that were identified as a result of our work were corrected by Nutreco in the 2019 Sustainability Report.

Sustainalize, April 22, 2020

www.sustainalize.com

About Sustainalize

Sustainalize is a management consultancy firm that fully specializes in CSR and sustainability. We support organizations in developing their strategy, organizing their sustainability processes and improving their performance and quality of internal and external reporting. As sustainability data experts we believe in robust data quality as an important prerequisite to measure progress and ultimately to improve sustainability performance.



“The road towards a sustainable future is paved with complex challenges; we must walk this road together.”

José Villalón
Sustainability Director, Nutreco