

# Contents

<b>04</b>	<b>7</b>	<b>19</b>	<b>47</b>	<b>57</b>	<b>83</b>
<b>A Message from our CEO</b>	<b>Restorative Aquaculture</b>	<b>BioMar Group</b>	<b>Sustainability in BioMar</b>	<b>Delivering on Ambitions</b>	<b>Walking the Talk</b>
Restoration and Capacity Building	Advancing Sustainability Science	Company & Activity Timeline	Our Sustainability Commitment	Our Sustainability KPIs	Stories of 2020
	Scope 1, 2 & 3: Going “Net-zero”	Markets & Operations	Putting our House in Order	Summary KPIs 2015-2020	Sustainable Nutrition Campaign
	Capacity building for sustainable soybean farming in Europe	Top Species	BioSustain™	Our 2030 Ambitions	From Solider to Farmer
	State of the World Aquaculture	Outlook & Financial Statements	Addressing the UNSDGs	Our Promise	Deforestation Free Soy
		Ownership		Health and Quality	Mauritania Small Pelagics Fishery Improver Programme
		Joint Ventures and Associates		Environment	First BAP Trout Feed in China
		Structure & Operational Model		Greenhouse Gases	Circular Ingredients - Proton
		Purpose & Strategy		Water & Waste Management	
		People with Purpose		Sustainable Raw Materials	
		BioFarm during COVID-19		Marine Ingredients	
		Stakeholder Engagements		Responsible Sourcing	
		Materiality		Society	



A Message from our CEO

## Restoration and Capacity Building

*We are in the second year of the global pandemic and with the roll-out of vaccines we can finally see the light at the end of the tunnel. As we close the last period of our KPIs we set our sights on 2030 with new ambitious targets aimed at restoration and capacity building for both planet and people.*

Looking back at 2020, it has been both challenging and rewarding. We believe people come first and we took significant steps during the pandemic to keep our employees safe and support local communities.

We would not be where we are today without our employees around the world, believing in our shared purpose and being willing to innovate and take risks to navigate through the crisis.

The pandemic demanded agile collaboration with our customers, adapting feeding strategies and product solutions. We have been close to the markets and took fast decisions across the globe despite travel restrictions and lock-downs.

BioMar left 2020 with a significant growth in volume in the salmon market compared to 2019, with a 7% increase in salmon feed volumes.

We completed an acceptable year in our EMEA division, despite a tough start due to the storm Gloria. Our shrimp feed producing countries also did well.

We managed to continue to grow our operations and opened factories in Australia and in China. We also launched a new extruded feed production line in Ecuador.

All in all, we achieved a total growth in revenue of 4% driven by increased sales volume. In early 2021, we signed a deal to acquire a feed business unit in Vietnam, positioning us even stronger in the shrimp segment.

In 2020 we concluded our 5-year sustainability improvement programme. Out of 13 ambitious KPIs we hit the mark on 9 targets.

We believe in transparency and even though some KPIs might seem too ambitious, we strive to aim high and disclose what we have and have not achieved.

At BioMar we recognise that humanity has burdened our planet and pushed beyond planetary boundaries. We must strive beyond sustainability and innovate with solutions that will regenerate the planet while supporting its people.

As we set our sights on 2030, we make a promise to our planet and its people with a set of ambitious targets that will seek to aid in the restoration of our environment while enabling humanity to thrive.

We have created three key areas of Climate Action, Circular & Restorative and Enable People. This will allow us to focus our ambitions,

although each area has several specific targets that will help us to achieve these objectives.

Most of these new ambitions are designed to impact the environmental and social footprint of our feeds. Our farmers will be able to directly benefit with an additional reduction in their own on-farm footprint.

We believe it is our responsibility to help make the world better. We will increase our commitment here through capacity building aimed at creating resilient societies with initiatives designed to have a far reaching effect across the world.

I invite all our stakeholders to read through this report, where our intention is to disclose our activities, commitments, achievements and provide some industry insights. We believe in our purpose to aid in the transformation of the aquaculture industry and that being transparent and responsible is, as we always say, "the right thing to do".

**Carlos Diaz**  
Chief Executive Officer,  
BioMar Group

Compared to other protein rich foods, fish has one of the lowest carbon footprints\*. Choosing a fish dish is a simple way to support your planet. Do it the easy way, grab a fish burger, a couple of fish cakes or some fish and chips. **Changing the world, one bite at a time.**



Doing good  
is easier than  
you think



\*World Resources Institute. Protein Scorecard, April 2016. Comparison based on GHG emissions per gram of protein  
<https://www.wri.org/resources/data-visualizations/protein-scorecard>



## Restorative Aquaculture

*BioMar is increasingly convinced that sustainable aquaculture must include restorative practices. In agricultural systems, the term regenerative implies to seek to rehabilitate and enhance the entire ecosystem of a farm. We need to think about restorative aquaculture in the same way.*

The Food and Agriculture Organization of the United Nations (FAO) has acknowledged the crucial role of aquaculture in food security and nutrition, economic equality, and environmental sustainability.<sup>1</sup>

Qu Dongyu, the Director-General of the FAO, states in the SOFIA report that the global share of under or malnourished people is growing. The world will need to employ innovative solutions to produce more food and improve nutrition.<sup>2</sup>

While capture fisheries will remain relevant, aquaculture has already demonstrated its importance to global food security. However, because increased production cannot come at the expense of the environment, new sustainable aquaculture strategies are required.

Through the European Green Deal, the FAO and the EU Commission have developed guidelines for sustainable aquaculture within a broader framework for more inclusive, efficient, and resilient agri-food systems.<sup>3,4</sup>

Sustainable development has been defined as satisfying fundamental human needs today without compromising future generations' ability to satisfy theirs. This involves finding the right balance between environmental, societal and economic impacts, whilst ensuring natural resources are available indefinitely.

The idea behind regenerative design and actions is to develop dynamic and restorative systems to revitalise communities, human and natural resources, and society. This is the natural next step in the evolution of sustainable aquaculture.

A definition of restorative aquaculture does not yet exist, however, regenerative agriculture has been proposed as a method of farming practices that seek to rehabilitate and enhance the entire ecosystem of a farm. Key principles include optimising soil health, water management, fertilizer use, and increasing biodiversity - resulting in improvements in the carbon, nutrient, and water cycles.

As a recognised leader in sustainability, BioMar believes that restorative practices can help raise the bar for defining a sustainable aquaculture system.

A truly restorative and sustainable aquaculture system will need to include farm level ecosystem enhancements. One promising method is integrated multitrophic aquaculture, where nutrients are up-cycled back into the food chain while reducing emissions.

In BioMar we actively take action for our areas of responsibility. We encourage and stimulate restorative practices in our supply chain, and we have set ambitious targets for minimum inclusion levels of circular and restorative ingredients.

You can read more about this on pages 61-63 in this report.

## Advancing Sustainability Science

*Growth within the aquaculture sector is essential for filling the global nutrition gap and achieving the UN Sustainable Development Goals (UN SDGs).*

Aquafeed supply chains are highly complex. Ingredients are sourced from all over the world and their production and use leads to a combination of local and global environmental impacts.

Aquaculture feeds have undergone a dramatic shift in raw material composition in the last decade. Increased reliance on plant ingredients, such as soy and rapeseed have introduced new sustainability challenges like biodiversity loss, land use and water pollution. Studies using life cycle analysis (LCA) have shown that farmed seafood has a lower carbon footprint compared to other farmed animals.<sup>5</sup>

The LCA methodology currently lacks the scientific flexibility required to better understand the trade-offs from changing raw material usage and increasing overall consumption.

In order to advance sustainability science in aquaculture, BioMar has partnered with leading environmental scientists on a 4-year

research project titled "Optimising feeds to explicitly support ecosystem-based aquaculture" to help improve our understanding of sustainability challenges.

In this project, expert knowledge within aquaculture nutrition, feed formulation, marine ecology and food production systems will be used to link local production to global processes and reliably inform aquaculture on sustainable growth pathways forward.

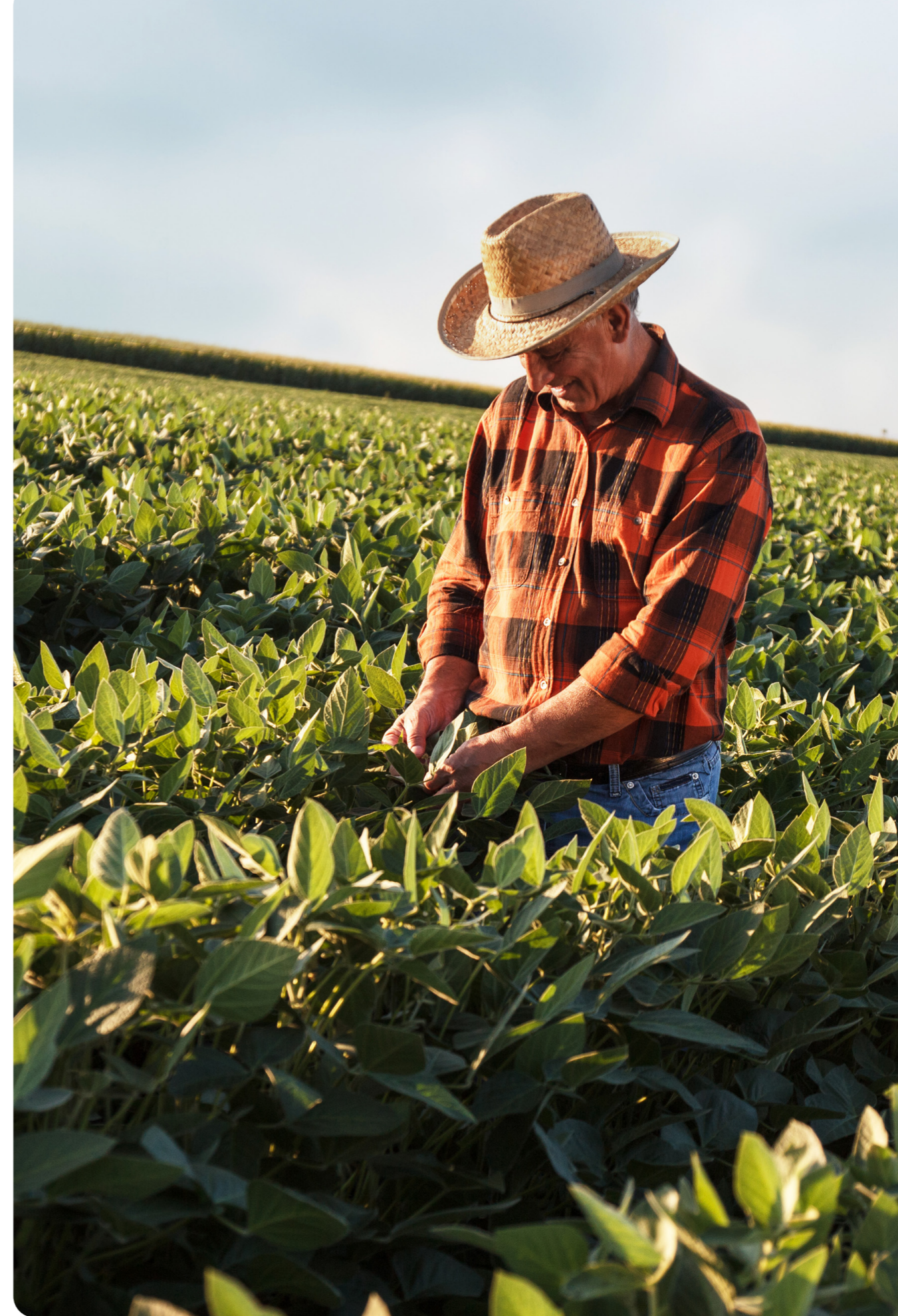
One focus area is determining how the introduction of novel raw materials including insect meal,

single cell organisms, and circular ingredients will redistribute impacts geographically and temporally.

One of the main goals of the project is to compare alternative feeds and their trade-offs for achieving the UN SDGs. BioMar and partners will assess emerging raw materials and integrate results into models for predicting the sustainability of current and future feed formulations.

An additional goal of the project is to improve the transparency of the aquaculture industry and align with global and local stakeholders on sustainability priorities and policies.

**"Through this project, BioMar and our partners aim to enhance aquaculture production, build resilient food systems and develop robust methodologies that advance sustainability science."**



Source adapted from Greenhouse Gas Protocol<sup>10</sup>

Scope 1, 2 & 3

## Going "Net-zero"

Since the Industrial Revolution, humans have been responsible for over 2,000 gigatons of carbon dioxide emissions. Greenhouse gases (GHGs) such as carbon dioxide, trap heat and, with increased atmospheric concentrations, cause the global warming we are experiencing today. The only way to avoid these consequences is simple: reduce global GHG emissions.

According to the International Panel on Climate Change, emissions need to halve by 2030 and, most importantly, reach "net-zero" by 2050 to avoid the worst climate impacts. This is in line with warming that is at or below 1.5°C of pre-industrial levels. But what does "net-zero" mean and how do we reach it?<sup>6</sup>

With 1.5°C of warming being a global target, many companies, institutions and governments are making ambitious plans towards a 2050 net-zero goal (UN, 2020). On the surface, the concept of net-zero emissions is simple: all human-caused GHGs emitted to the atmosphere are balanced by removing GHGs from the atmosphere. This should be achieved by first reducing fossil fuel combustion to as close to zero as possible, with the remaining emissions being removed from the atmosphere by e.g., carbon capture and storage or forest restoration.<sup>7</sup>

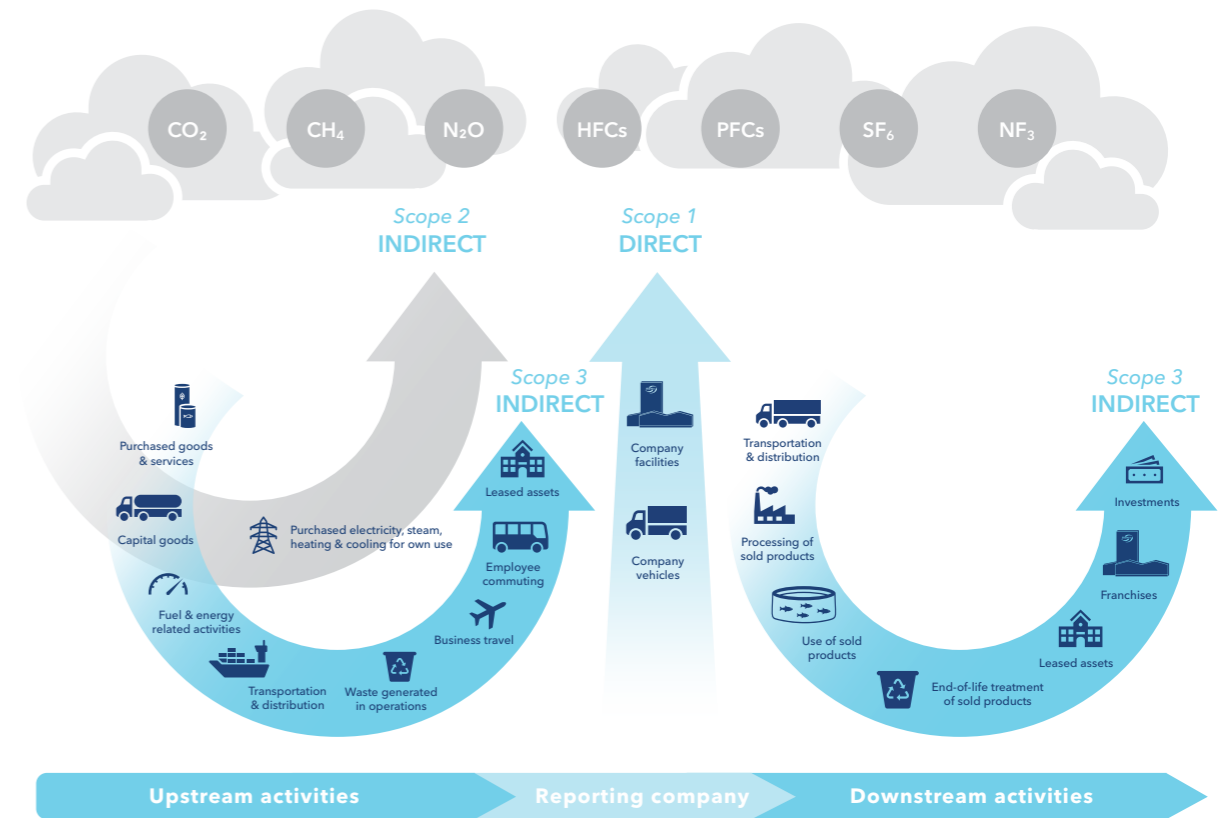
Despite its conceptual simplicity, research has shown how differing definitions and pathways to net zero can lead to drastically different results. For example, the time-frame

for achieving net-zero emissions varies if the strategy refers to just carbon dioxide or includes all GHGs. The non-carbon dioxide GHGs, such as nitrous oxide and methane, are more difficult to reduce, however, and are substantially more potent for short-term warming. If unchecked, this could lead to humanity breaching the 1.5°C threshold before 2050.<sup>8,9</sup>

Due to this, it is important that companies, governments and other agencies develop net-zero targets using a science-backed methodology that leads to substantiated and meaningful reductions.

### Reducing Scope 1, 2 & 3 GHG Emissions

To develop a net zero strategy, a first and crucial step is to track, quantify and validate all GHG emissions against a robust standard, such as the GHG Protocol. For this accounting process, GHG emissions are grouped into 3 categories: Scope 1, 2 and 3 emissions (see figure). From a business's perspective, scope 1 emissions includes all direct emissions from owned or controlled sources, such as fuel combustion and company vehicles. Scope 2 emissions



includes all indirect GHG emissions related to the generation of purchased electricity, heat and steam, while scope 3 emissions covers all other indirect emissions that occur in a company's supply chain, e.g. raw material production and business travel.

Due to their varying sources, tackling a company's scope 1, 2 and 3 emissions requires a wide variety of approaches, that are validated using frameworks such as the Science-based Targets Initiative (SBTi). Reducing scope 1 emissions can be achieved by phasing out and reducing fossil fuel use through, e.g., electrifying operations. Scope 2 emissions are best reduced by optimising & increasing energy efficiency as well as sourcing purchased electricity, heat and steam from renewable energy sources, such as wind, hydro power or nuclear power.

Scope 3 emissions, while often consisting of the vast majority of a company's emissions, are more difficult to control due to their occurrence deep within global supply chains. Therefore, scope 3 strategies must target

supply-chain actors, such as suppliers and customers, to help achieve carbon reductions within their operations. In the aquafeed industry, this includes working with suppliers to halt deforestation, restore degraded lands, and de-carbonize, whilst also engaging with customers and retail to improve food production efficiencies and reduce food loss.

Once emissions are reduced to the greatest extent possible, the remaining GHG emissions are removed from the atmosphere using either land-based (e.g. reforestation, enhancing soil carbon and biochar) and/or technological approaches (e.g. direct air capture, ocean alkalinity enhancement and converting carbon dioxide into durable carbon).

For more information about BioMar's climate strategy and goals, please refer to page 62.

Donau Soja Protein Partnerships

## Capacity building for sustainable soybean farming in Europe

*BioMar is helping the transition towards a more resilient and sustainable European agriculture. As a major purchaser of global commodities, BioMar actively supports agricultural and fishery improvement projects targeting the desired outcomes of the Food to Fork Strategy.*

### The EU Farm to Fork Strategy #EUGreenDeal

The European Green Deal is a plan to make Europe the first climate-neutral continent by 2050. It maps out a sustainable growth strategy to boost the economy by improving its citizens' health and quality of life while enhancing our stewardship of nature. The Farm to Fork strategy is at the heart of the Green New Deal. It addresses the challenges of sustainable food systems and recognizes the inextricable links between healthy people, healthy societies, and a healthy planet. The strategy is also central to the EU Commission's agenda to achieve the UN Sustainable Development Goals.<sup>3,11</sup>

The food production sector is currently not meeting the UN SDGs. Agriculture is the largest driver of biodiversity loss, and a major contributor to GHG emissions and social inequality. To protect the environment, there is an urgent need to promote sustainable and restorative agriculture. Agricultural Supply Chains can also improve social development outcomes by more evenly distributing technology, knowledge, market access, and investment capital.

### Farm to Fork in Practice - Donau Soja

Donau Soja (DS) is a Vienna-based, non-profit organization that works alongside European farmers and agricultural stakeholders to promote an environmentally

sustainable and economically viable European soy supply. They manage a high-quality soy production standard Donau Soja (DS) / Europe Soya (ES) that builds on crop production and processing regulations applied in the EU and additional environmental and social criteria.

### Donau Soja Protein Partnerships

DS Protein Partnerships is a comprehensive agricultural improvement program designed to provide the financial, technical, and practical support necessary to allow farmers to become certified to the DS Standard. The tonnage of certified soy produced from a successful project can be used as an alternative to overseas soy credits. Protein Partnerships projects contribute to meeting several of the overall goals of Donau Soja.

### BioMar's Donau Soja Protein Partnership in Croatia

BioMar chose Croatia as its partner country due to its proximity to existing supply chains for physically segregated products already being purchased by BioMar. Specifically, this project involved supporting three Croatian agricultural cooperatives (PP Orahovica, Ruris and PIK Vinkovci plus) and their cooperative farmers. All three cooperatives and their combined 540 farmers practise crop rotation with a diversified assortment of fruits and vegetables.

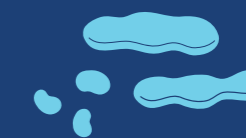
### Donau Soja Protein Partnerships Objectives

- Improve European Crop Diversity:** Europe devotes less than 2% of agricultural land to legumes (i.e. soy).
- Reduce Agrochemical Use:** The DS Standard bans the use of desiccants such as glyphosate or diquat.
- Rural Development:** Improve conditions for mostly small and medium-sized farmers in Central and Eastern Europe.
- Market Development:** Improve supply chain infrastructure to connect local producers to Western markets (buyers).
- Environmental Sustainability:** Reduce the impacts of the European feed and food industry.

## Project Achievements & Results

*Despite significant challenges due to the Covid-19 pandemic, the project achieved many important outcomes. The three Croatian Cooperatives were able to harvest approximately 20,000 tonnes of soybeans cultivated in accordance with the Donau Soja standard.*

## Market Development



**13,314 MT**  
**Donau Soja soybeans**

*Exported to Nordic feed supply chains*

## Agrochemicals



**1,273 L**  
**Agrochemicals**

*Avoided compared to standard production methods*

## Climate



**68,200 MT**  
**CO<sub>2</sub> equivalents**

*Potentially saved compared to overseas uncertified imports*

## Capacity Building



**540**  
**Farmers**

*Trained to produce Donau Soja certified soybeans*

## Protecting Forests



**177 Ha**  
**Primary forest**

*Potentially saved compared to overseas uncertified imports*



## Major species produced in world aquaculture

	kT	Share	Change from 2016
 <b>Grass Carp</b> <i>Ctenopharyngodon idellus</i>	5 704.0	7%	+5%
 <b>Whiteleg Shrimp</b> <i>Penaeus vannamei</i>	4 966.2	6%	+19%
 <b>Silver carp</b> <i>Hypophthalmichthys molitrix</i>	4 788.5	6%	+2%
 <b>Nile tilapia</b> <i>Oreochromis niloticus</i>	4 525.4	6%	+9%
 <b>Common carp</b> <i>Cyprinus carpio</i>	4 189.5	5%	+3%
 <b>Bighead carp</b> <i>Hypophthalmichthys nobilis</i>	3 143.7	4%	-1%
 <b>Catla</b> <i>Catla catla</i>	3 041.3	4%	+21%
 <b>Atlantic salmon</b> <i>Salmo salar</i>	2 435.9	3%	+8%
 <b>Striped catfish</b> <i>Pangasianodon hypophthalmus</i>	2 359.5	3%	+8%
 <b>Roho labeo</b> <i>Labeo rohita</i>	2 016.8	2%	+9%
<hr/>			
<b>Top 10 species (finfish, crustaceans)</b>	37170.8	45%	
<b>Other species (finfish, crustaceans, molluscs, etc.)</b>	44924.2	55%	
<b>World total (all animals)</b>	82 095.0	100%	+7%

## State of the World Aquaculture

The 2020 SOFIA report shows that global fisheries can recover and thrive when managed under the guidelines of the FAO Code of Conduct for Responsible Fisheries. Aquaculture growth continued, allowing wild capture to stabilise and relieve pressure on our ocean.

The latest worldwide statistics on aquaculture by FAO, saw world aquatic animal production attained another all-time record high of 82.1 million tonnes in live weight in 2018, with a total farm gate sale value of USD 250.1 billion. World aquaculture production of farmed aquatic animals grew on average 5.3% per year in the period 2001–2018, whereas the growth was only 4% in 2017 and 3.2% in 2018.<sup>2</sup>

Fin-fish, at 54.3 MT, continued to dominate the farming of aquatic animals in 2018, with 87% from inland aquaculture while marine and coastal aquaculture represented only 13%. Following fin-fish were molluscs at 17.7 MT, crustaceans 9.4 MT, and invertebrates, turtles and frogs 930 KT.<sup>2</sup>

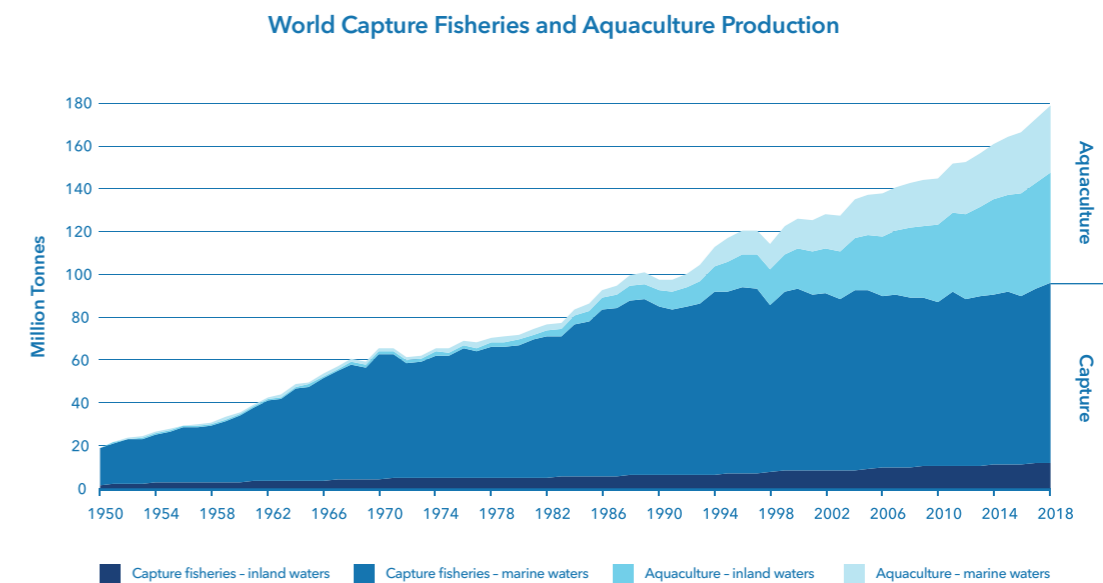


Figure 1 (above): NOTE: Excludes aquatic mammals, crocodiles, alligators and caimans, seaweeds and other aquatic plants. <sup>2</sup> Table 1. (left): World aquaculture production of finfish, crustaceans, molluscs, etc. by principle species in 2018. <sup>2</sup>

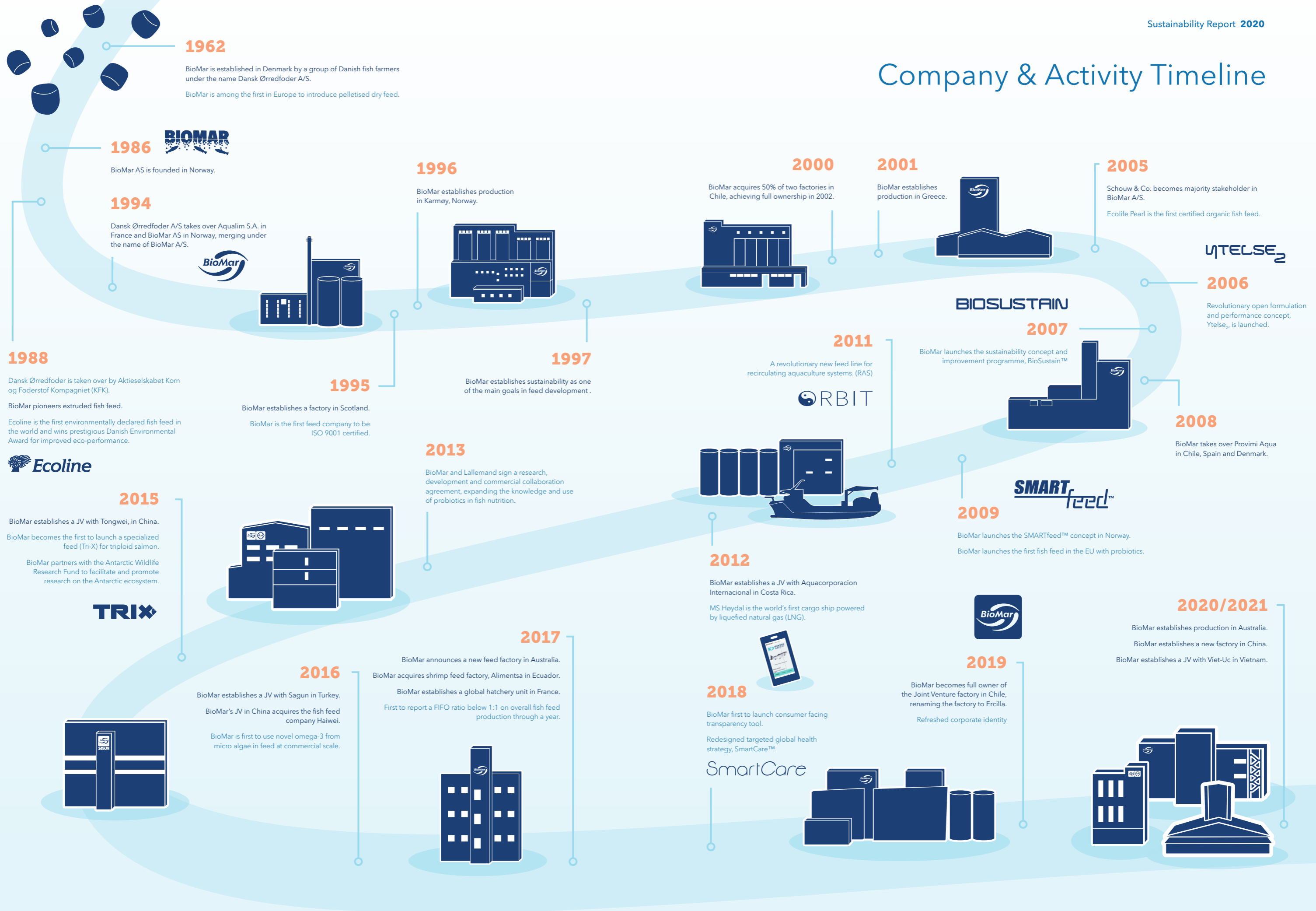
While some white foods can be full of empty calories, fish are packed full of goodness. They also have a smaller carbon footprint compared to other high protein foods\*. Choosing a fish dish is an easy way to support your planet. **Make a difference, one bite at a time.**

**The better choice**



\*World Resources Institute. Protein Scorecard, April 2016. Comparison based on GHG emissions per gram of protein  
<https://www.wri.org/resources/data-visualizations/protein-scorecard>

# Company & Activity Timeline



# Markets & Operations

BioMar is a leading supplier of high-performances, sustainable aquafeeds. We supply feed for over 50 different species, to more than 90 countries from 17 production facilities around the world.



BioMar Group has its head office in Aarhus Denmark, and divides its operations into four divisions: Salmon Division, EMEA Division, LATAM Division and the new Asia Division that will support our growth ambitions in the region.

Our approach stimulates local market engagement, while ensuring global synergies in terms of processes, access to world-class knowledge and expertise. All our business units are headed by local managers, who have solid experience and knowledge from within the sector.

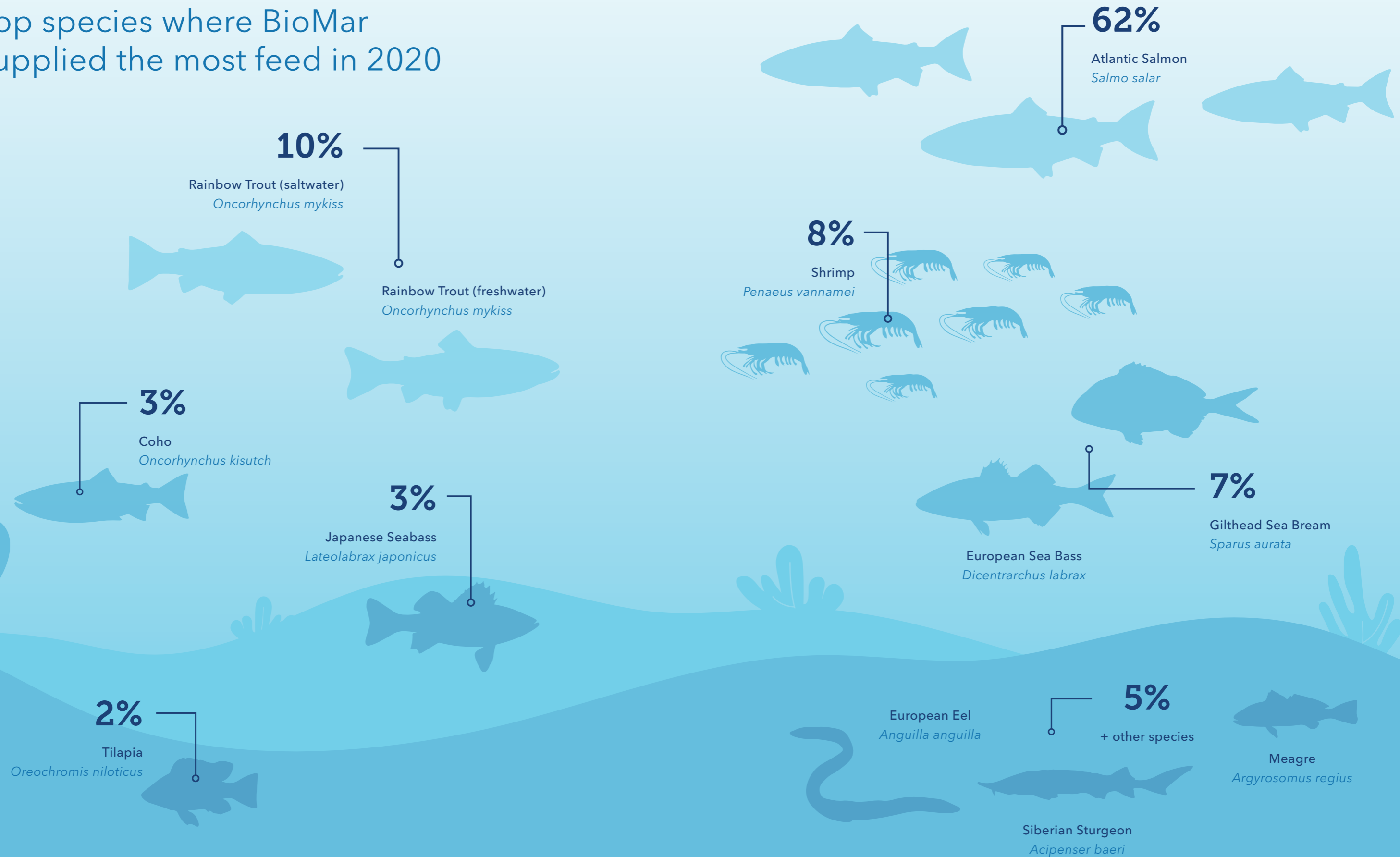
The Salmon Division has operations in Norway, Scotland and Chile, and more recently in Australia. The EMEA Division covers the EMEA region and involves all operations other than salmon, and has production facilities in Denmark, France, Spain, Greece and Turkey. The LATAM Division encompasses operations in Costa Rica and Ecuador, and has a product focus on hatchery and shrimp. The Asia Division consists of operations in China and the newly acquired production facility in Vietnam.

Our main business areas are sustainable feeds for salmon and trout in Norway, the UK, Chile and Australia. In Continental Europe we produce feed for trout, sea bass, sea bream, meagre and eel. While in South and Central America we provide feed for shrimp, cobia and tilapia. In Asia, our main business is feed for shrimp, Japanese seabass and snakehead.

The operating model is explained more in detail on page 31.

Figure 2. BioMar markets and production by country including manufacturing units and ATC centres.

## Top species where BioMar supplied the most feed in 2020



# Outlook & Financial Statements

*A good year with revenue and EBITDA improving and strong positive cash flows from operations. New production capacity in Australia, China and Ecuador together with a new partnership in Vietnam. Guiding for sustained improvements in 2021.*

BioMar is one of the world's largest manufacturers of quality feed for the fish and shrimp farming industries. The company's operations are divided into four divisions:

- The Salmon division covering operations in Norway, Scotland, Chile and Australia. The division supplies high-yielding feed for Atlantic salmon, Pacific salmon and trout.
- The EMEA division covering the EMEA region and involving all operations other than salmon. The division has production facilities in Denmark, France, Spain, Greece and Turkey.
- The LATAM division covering Latin American operations involving shrimp and fish other than salmon. The division has production facilities in Ecuador and Costa Rica.
- The Asia division covering operations involving fish and shrimp in Asia. The division has two factories in China and, from 2021, a new factory in Vietnam.

The business operations in Turkey and China, both driven through 50/50 joint ventures with local partners, are not consolidated.

## Financial Performance

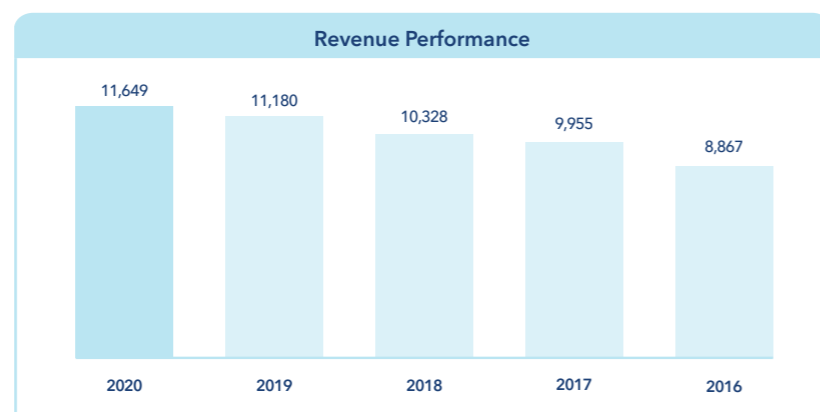
BioMar closed out the year on a high level of business activity in the fourth quarter, as volume sales increased by 5%. However, reported revenue fell by 3% from DKK 3,126 million in Q4 2019 to DKK 3,045 million in Q4 2020, mostly due to foreign exchange developments.

Both for the fourth quarter and for the year as a whole, the increase in volume sales was attributable mainly to the Salmon Division, with the exception of Chile where the COVID-19 situation led to sluggish demand. The ongoing efforts to develop close relationships with customers on advanced feed solutions and the start-up of the new factory in Australia were some of the most important factors driving the improvement. The EMEA and LATAM divisions were impacted by the COVID-19 situation, although the EMEA division improved year-on-year sales in the fourth quarter

as favourable water temperatures offset the negative effects of the COVID-19 pandemic.

As a result, full-year 2020 revenue was up by 4% to DKK 11,649 million from DKK 11,180 million in 2019. The revenue improvement was based on a 7% increase in volumes sold relative to 2019, which were offset mainly by foreign exchange developments. Overall, exchange rate developments had a negative effect on revenue of more than DKK 400 million.

Reported Q4 2020 EBITDA was down 11% year on year, especially due to difficult market conditions in Chile and Ecuador caused by the COVID-19 pandemic, bringing full-year EBITDA to DKK 972 million, compared with DKK 966 million in 2019. The moderate improvement was driven by increased volume sales and a number of cost cuts, but which were partially offset by



BioMar Group	Q4 2020	Q4 2019	2020	2019
Volume ('000 of tonnes)	354	337	1,342	1,250
Revenue (DKKm)	3,045	3,126	11,649	11,180
- of which salmon north	1,624	1,568	5,501	5,008
- of which salmon south	651	764	3,009	2,819
- other divisions	770	793	3,139	3,353

unfavourable foreign exchange developments compared with 2019, and costs related to the COVID-19 pandemic, such as additional costs for testing, cleaning, extra production shifts and support provided to local communities in affected areas.

Working capital fell from DKK 1,315 million at 31 December 2019 to DKK 955 million at 31 December 2020. The reduction of the working capital was due to a number of factors, including reduced trade receivables and inventories and an increase in other debt. Foreign exchange developments also contributed to reducing the working capital. The use of supply chain financing amounted to DKK 829 million at 31 December 2020, which was largely unchanged from 31 December 2019.

ROIC excluding goodwill remained high, at 18.4% at 31 December 2020, compared with 18.8% at 31 December 2019.

## Business Review

Despite the unusual conditions caused by the COVID-19 pandemic, BioMar managed to maintain near-normal operations in 2020. The situation varied from country to country, but BioMar implemented a number of measures in order to protect the employees and to support local communities in the most affected areas. The negative impact on BioMar's overall volume sales has been relatively modest to date, although certain markets have faced more challenges than others, particularly Chile, Ecuador and the Mediterranean markets.

However, the current challenges in Ecuador resulting from the COVID-19 pandemic have not affected the expectations for long-term market growth that were the background for the capacity expansion which BioMar launched in Ecuador in 2019. Completed in the fourth quarter of 2020, the expansion includes a production line for extruded feed, which has increased annual production

capacity by a further 40,000 tonnes. The new production line represents an investment of about DKK 50 million.

Despite exceptional circumstances in 2020, BioMar also successfully managed to start up production at new factories in Australia and China, despite the travel restraints faced by technicians and specialists. The two new factories, located in Tasmania, Australia and in Wuxi, China, respectively, began commercial operations in the second quarter of 2020 and, as part of BioMar's global production facilities, they now play an important role in the company's presence in those two important aquaculture markets. In the second quarter of 2020, BioMar concluded a declaration of intent with a leading player in Vietnam's shrimp farming industry, Viet-UC, intended to pave the way for BioMar becoming a co-owner and taking operational charge of a relatively new feed factory owned by Viet-UC. The new partnership is expected to produce substantial synergies and to strengthen BioMar's global position in the shrimp feed business. The process to define the partnership has taken longer than originally expected due to the continuing travel restrictions, but the parties have collaborated constructively and the final agreement on the partnership has been signed after year end.

### Outlook

From a general perspective, demand for farmed fish and shrimp is progressing well in most markets. However, the COVID-19 situation has disrupted the usual sales channels for farmed fish and shrimp, leading to import/export restrictions and creating a highly volatile supply/demand situation and, as a result, volatile pricing.

To date, the COVID-19 pandemic has had only a limited impact on BioMar's overall volume sales. However, there have been shifts in geographical sales, as fish farmers in certain markets have reduced feed volumes, while in others sales of more advanced feed products have declined and have been replaced by relatively more ordinary products.

According to current assessments, the markets in Chile and Ecuador are subject to the most uncertainty, as fish farmers are seeing the COVID-19 pandemic having a very significant impact on their sales, especially to the HoReCa segment. The effects of the ongoing vaccination programmes are as yet unknown, but BioMar's guidance for 2021 assumes that primary market conditions will gradually normalise. Based on that assumption, BioMar expects an increase in volume sales driven in part by gradual normalisation, in part by the effects of the strategic investments made in recent years.

Against this background, BioMar expects to generate full-year 2021 revenue of about DKK 12.0 billion, but as always changes in raw materials prices and foreign exchange rates may impact revenue. Earnings may also be affected by foreign exchange developments, but based on the current outlook, BioMar expects to generate EBITDA in the range of DKK 950-1,020 million in 2021.

Associates and joint ventures, which are recognised at a share of profit after tax, are expected to contribute a total share of profit of approximately DKK 40 million in 2021. The improvement relative to 2020 is largely attributable to Salmenes Austral, and subject to a significant degree of normalisation of salmon prices in Chile.

## BioMar Group

BioMar closed 2020 with solid results driven by a significant volume growth in the salmon market. However, pressure on margins and exchange rates limited the impact on the bottom-line.

BioMar Group Income Statement	2020	2019
Revenue	11,649	11,180
Gross profit	1,459	1,477
EBITDA	972	966
Depreciation and impairment losses	335	311
EBIT	637	655
Profit after tax in assc's and joint ventures, etc.	-36	79
Net financial items	-68	-62
Profit before tax	534	672
Tax on profit/loss for the year	-141	-134
Profit for the year	393	537

Cash Flows	2020	2019
Cash flows from operating activities	1,028	328
Cash flows from investing activities	-131	-543
Cash flows from financing activities	-845	198

Balance Sheet	2020	2019
Intangible assets	1,178	1,311
Property, plant and equipment	1,625	1,750
Other non-current assets	1,004	1,194
Cash and cash equivalents	293	270
Other current assets	4,401	4,246
Total assets	8,500	8,771

Shareholders' equity	2,655	2,852
Interest-bearing liabilities	2,258	2,565
Other liabilities	3,587	3,355
Total equity and liabilities	8,500	8,771

Financial Data	2020	2019
EBITDA margin	8.3%	8.6%
EBIT margin	5.5%	5.9%
ROIC excluding goodwill	18.4%	18.8%
ROIC including goodwill	13.4%	13.7%
Working capital	955	1,315
Net interest-bearing debt	1,532	2,077

Table 2. BioMar financial figures for 2020 and 2019 in DKK millions.



## Ownership

The BioMar Group is fully owned by Schouw & Co., a Danish industrial conglomerate listed on the Nasdaq Copenhagen Stock Exchange who practise ownership through and alongside company managements.

Schouw & Co. acquired 68% of BioMar in 2005 and achieved full ownership in 2008 by merging the parent company, BioMar, into Schouw & Co. This acquisition has made Schouw & Co. both larger and stronger. BioMar's performance has been a strong contribution to Schouw & Co.'s portfolio, generating most of the current revenue and earnings.

Besides aquaculture feeds, Schouw & Co.'s subsidiaries comprise non-woven textiles for personal care and industrial applications, hydraulic solutions and components, electronics and advanced mechanics, and components for the automotive industry.

Schouw & Co. maintains an ongoing and close dialogue with portfolio company management teams on such issues as strategy, financing, accounting, investments and acquisitions. The active ownership is always exercised through and alongside company management teams.

Schouw Group Income Statement	2020	2019
Revenue	21,273	20,946
Gross profit	3,528	3,370
EBITDA	2,209	1,951
Depreciation and impairment losses	833	802
EBIT	1,376	1,149
Profit after tax in assc's and joint ventures, etc.	-36	79
Net financial items	-133	-79
Profit before tax	1,209	1,149
Tax on profit/loss for the year	-300	-243
Profit for the year	912	911

Cash Flows	2020	2019
Cash flows from operating activities	2,296	1,410
Cash flows from investing activities	-533	-1,043
Cash flows from financing activities	-1,630	-421

Balance Sheet	2020	2019
Intangible assets	3,423	3,568
Property, plant and equipment	4,659	4,956
Other non-current assets	1,427	1,699
Cash and cash equivalents	635	538
Other current assets	7,851	8,016
Total assets	17,994	18,777

Shareholders' equity	9,605	9,521
Interest-bearing liabilities	2,599	3,885
Other liabilities	5,790	5,371
Total equity and liabilities	17,994	18,777

Financial Data	2020	2019
EBITDA margin	10.4%	9.3%
EBIT margin	6.5%	5.5%
ROIC excluding goodwill	15.3%	12.3%
ROIC including goodwill	12.3%	10.0%
Working capital	3,107	3,738
Net interest-bearing debt	1,936	3,298

Table 3. Schouw & Co. A/S financial figures for 2020 and 2019 in DKK millions.

BioMar Group

## Joint Ventures and Associates

*BioMar manufactures fish feed in China and Turkey through 50/50 joint ventures with local partners. These activities are not consolidated, but having a strong presence in these markets is very important to BioMar due to their large growth potential.*

The two feed businesses reported combined 2020 revenue (100% basis) of DKK 682 million and EBITDA of DKK 40 million, against revenue of DKK 676 million and EBITDA of DKK 25 million in 2019. Revenue developments consisted of a decline in Turkey due to challenging macroeconomic conditions and improvements in China following the start-up of the new factory in Wuxi, near Shanghai. The earnings improvement was driven by relatively normal conditions in 2020, whereas the 2019 figure was impacted by provisions for bad debts in Turkey.

However, the non-consolidated businesses also include the Chilean fish farming company Salmones Austral and three minor businesses, Letsea, ATC Patagonia and LCL Shipping.

BioMar holds a non-strategic ownership interest of 22.9% in Salmones Austral, which is recognised as an associate in the consolidated financial statements. At the beginning of 2020, the owners of Salmones Austral had expected to work towards a listing of the company

in Santiago, Chile for purposes of raising capital for the continued development of the business. However, the plans for an IPO have been postponed until further notice due to the COVID-19 pandemic.

Furthermore, the COVID-19 situation has had a severe, negative impact on the year's revenue and earnings in Salmones Austral. The main reason is lower settlement prices for farmed salmon, which has obviously influenced the volumes of fish sold, but it has also resulted in negative value adjustments of salmon stocks at fish farms. As a result, Salmones Austral reported 2020 revenue of DKK 1,089 million and EBITDA of DKK -112 million, against revenue of DKK 1,605 million and EBITDA of DKK 418 million in 2019.

The non-consolidated joint ventures and associates are recognised in the 2020 consolidated financial statements at a DKK 36 million share of loss after tax, compared with a DKK 50 million share of profit in 2019.

## Structure & Operational Model

*In line with strategic aspirations of growth, BioMar has established a new division embracing activities in the Asian region, including Vietnam and China. BioMar's operational model is now made up of four divisions: Salmon, EMEA, Asia and LATAM.*






The BioMar organisational and management structure is set to reflect our Shaping Our Future strategy and to support the development of a global focus across the divisions. The goal is to prepare for further growth and to strengthen The BioMar Way of operating worldwide.

To serve global customers we will continue to adjust our approach and optimise our product portfolio and








customer support. Our structure reflects BioMar's approach to combine global excellence with local agility.

This model serves different customer profiles and market conditions and has proven to be efficient in ensuring global synergies and efficient collaboration towards the customers. The global setup now includes an Asia division to support the next phase of BioMar's growth strategy.

### Board Members

 <b>Chairman</b> Jens Bjerg Sørensen	 Jørn Ankar Thomsen	 Marianne Kirkegaard	 Asbjørn Reinkind	 Anders Wilhelm
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### Executive Committee

 <b>CEO</b> Carlos Diaz	 <b>CFO</b> Claus Eskildsen	 <b>VP People, Purpose &amp; Communications</b> Sif Rishøj	 <b>VP Salmon</b> Paddy Campbell	 <b>VP EMEA</b> Ole Christensen	 <b>VP LATAM</b> Henrik Aarestrup	 <b>VP Asia</b> Francois Loubere
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### Global Functions









 <b>R&amp;D</b> Simon Wedsworth	 <b>Sourcing</b> Morten Mejbaek	 <b>Sustainability</b> Vidar Gundersen	 <b>Marketing</b> Katherine Bryar	 <b>Manufacturing &amp; Technology</b> Roger Hendry	 <b>Business Development</b> Michael Gammelgaard	 <b>IT</b> Thomas Mortensen	 <b>Finance</b> Carsten Nielsen
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Figure 4. Illustration of corporate policies in BioMar, emanating from global core statutes, code of conducts and high impact policies to more market driven position statements.

# Purpose & Strategy

## Shaping Our Future

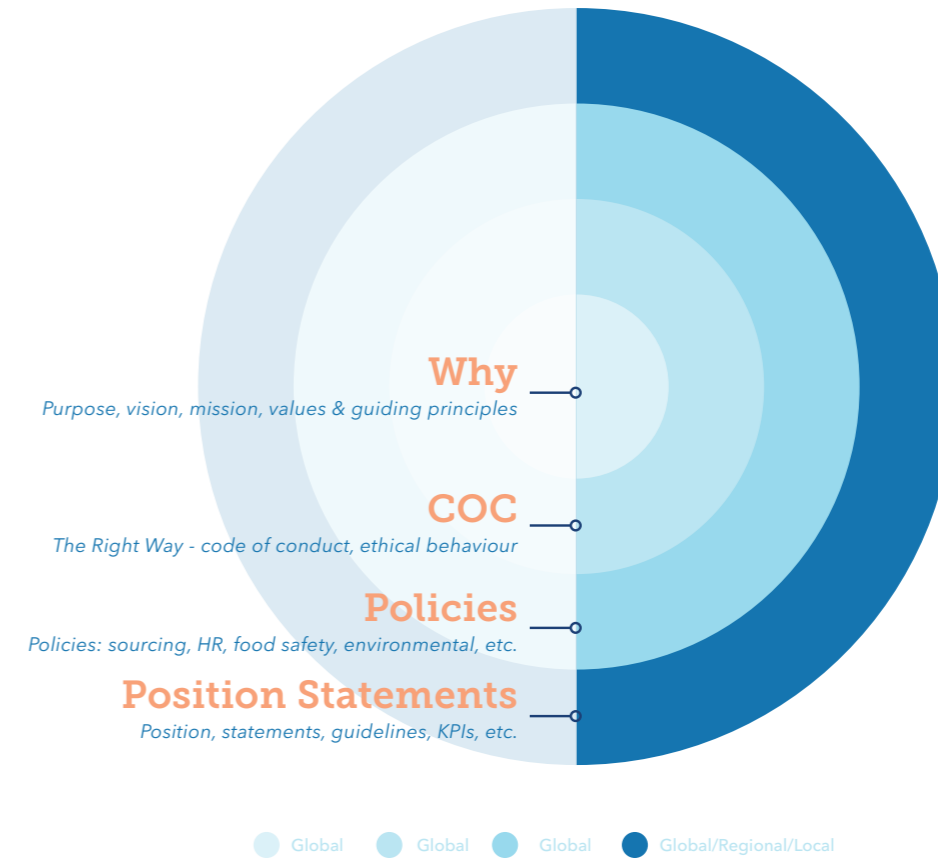
*In 2019, BioMar launched a refreshed strategy for the period 2019-2023, named Shaping Our Future. It builds upon our purpose and our four guiding principles, which form the base of all our strategic decisions. We promote Innovation, Collaboration, Sustainability and Performance in the aquaculture industry.*

Our purpose summarizes a culture and focus that has characterised the company since its founding in 1962. The refreshed strategy is a continuation of our growth strategy set in 2016. We continue our organic growth while conducting systematic assessments of potential acquisitions. At the same time, we have established new strategic areas within RAS and hatchery. To enable this growth, we have increased our focus on people, sustainability, technology and digitalisation.

We know that change can be difficult, but we believe change is possible through trust and mutual beneficial collaboration. That is why we are developing partnerships across the value chain in an effort to accelerate innovation to secure all our futures.

To promote our purpose and attract like-minded people and organisations, we will continue to run our purpose campaign with our ambitions towards 2030. We hope that through awareness we can drive innovation adoption throughout the aquaculture industry.

We believe in the future of the aquaculture industry and we understand that to ensure our future we must continue to innovate our feeds. This is vitally important to us, as aquaculture feed is the totality of our business.



# Sustainability Committee & ESG

*BioMar is committed to ensuring high standards of corporate responsibility and ESG which is overseen by the Sustainability Committee.*

The Sustainability Committee (SC) is led by our Sustainability Director and consists of the CEO, CFO, VP People, Purpose and Communication and selected Global Heads responsible for delivering on individual initiatives and KPIs.

suppliers, meet the standards detailed in our Code of Conduct (COC) and applicable policies.

Failure to comply with the principles set forth in our policies will result in corrective measures and, in worst case, contract cancellation.

Part of our role as a multinational company, which sources raw materials in the global market, is to ensure that we, along with our

BioMar acknowledges that a sustainable business must be built upon certain ethics such as ensuring fundamental human rights, amongst others. Our COC is essential to the way we drive our business and in which we require employees and business partners to comply with overall standards and provisions.

Fundamental to accepting our policies is the understanding that a business, in all of its activities, must operate in full compliance with the laws, rules and regulations of the countries in which it operates, including, but not restricted to, labour and environmental issues.

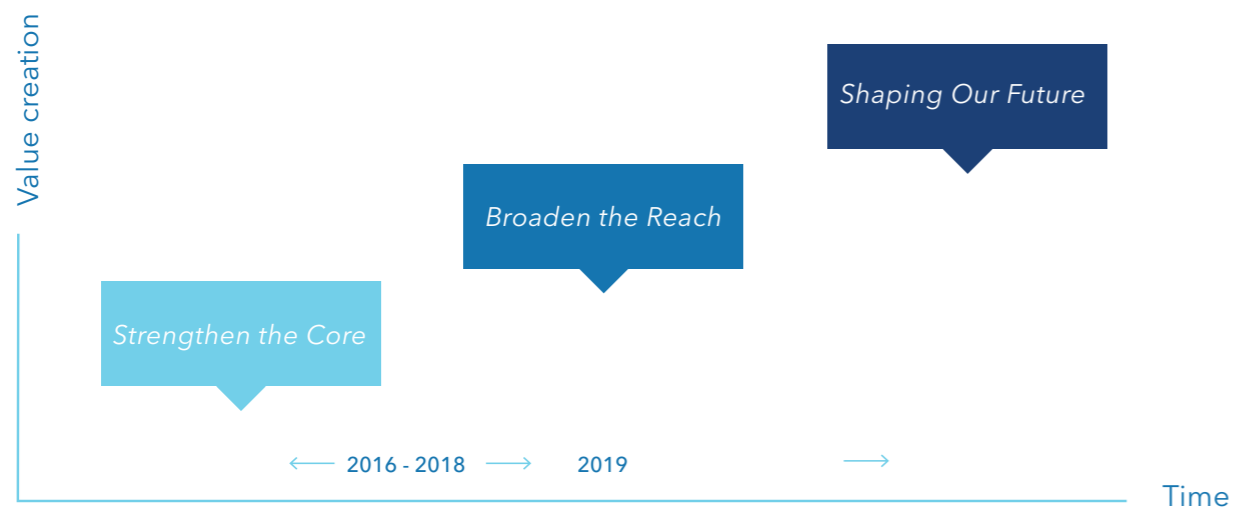


Figure 3. Stages in our strategy "Shaping Our Future" towards 2020.



## People with Purpose

*2020 turned out to be a year beyond any plan or imagination. Our focus was on ensuring safety measures were taken and our people remained motivated.*

During the pandemic our purpose enabled us to take fast decisions as conditions for our business changed due to lock-downs and closing borders. Our purpose has shown its strength as decisions were taken to safeguard and protect our people and the communities around us. Protecting and promoting human rights proved to be a major focus area in 2020.

We undertook only the most necessary recruitment during the year in terms of running our operations and building strategic capabilities. This decision was taken in order to protect as many jobs as possible in case the pandemic turned out to limit the possibilities to run our business with a full workforce. We strove to ensure we should not discharge people in the middle of a pandemic with potential severe consequences for our workers, their families and the broader community.

Health & Safety	Target 2020	2020	2019	2018	2017
LTI Rate	< 2.0	3.0	7.0	5.0	6.4
Days Lost/Employee	No Target	0.35	0.08	0.12	0.09

### New E-learning platform

To support training opportunities we introduced a new global e-learning platform for internal and external use. This ensured our employees stayed at the right competence level, even during the pandemic.

The platform is used for a variety of functions including training in the use of new production equipment or IT solutions as well as general professional development. We partnered with Skillsoft, one of the world's largest providers of e-learning to make sure our employees could access a broad range of high level training.

The new e-learning platform will continue to play a central role in the training of employees, distributors and customers. It will also document our compliance towards quality standards as well as business ethics.

The need for digital solutions has impacted our people around the world and resulted in more efficient work tools and processes, including new ways of collaborating in a hybrid work environment across borders, without the need to be together in the same physical space.

### Living wages

We managed to complete a number of initiatives to prepare for the future development of BioMar focusing on inspirational people targets.

We conducted a pre-study together with one of the leading living wage organisations, in preparation for our new 2030 targets related to people, by measuring wages up against the criteria for a living wage.

A minimum salary does not guarantee a sustainable income for a family or even individuals. That is why the concept of living wages is being promoted by the International Labour Organization (ILO) and human rights organisations around the world as a way to ensure adequate living conditions for workers.

A living wage is reflecting what is actually required in a country in terms of daily necessities such as food, housing, transportation, education etc. A living wage is considered to be the foundation for a decent life, safeguarding human rights and the growth of communities.

At BioMar we believe that providing living wages is important in promoting human rights and society growth to enable people to live more fulfilling lives.



## Human Rights

As a global company, we believe we must take responsibility for driving our company in a way that inspires others to follow. We embrace human rights and benefit from the advantages of a diverse workforce.

During 2020 we became an active member of the Nordic Business Network for Human Rights, supported by the Danish Institute of Human Rights, to help us strengthen our focus and capabilities within human rights.

The network comprises a wide variety of companies: Arla, BioMar, Danfoss, Hempel, IKEA, Lego, Lundbeck, Neste, Norsk Hydro, Novo Nordisk, Pandora, Statkraft, Vestas and Yara. It is our aspiration that through participation we will exchange best practice and build common ambitions. In 2020 we released a joint public statement in support of effective EU legislation on human rights.

The network was a great inspiration in starting our work on responsible pay. Several of the companies are also engaged in initiatives for responsible pay internally as well as in their supply chains. We have also gained insights from organisations such as Fair Wages Network, the Wage Indicator Foundation and the Danish Institute of Human Rights.



## Diversity & Equality

*When building a sustainable business we believe in diversity and inclusiveness across gender, ethnicity and social background.*

Our global presence reflects our vision of diversity and equality through collaboration across different nationalities and cultures. We address any discrimination, inequality or bias related to employee diversity, as outlined in our Code of Conduct, including but not limited to race, ethnicity, gender or sexual orientation.

In 2020, the level of women in leadership was in line with our overall gender composition within our organisation.

Gender	2020		2019		2018	
	Female	Male	Female	Male	Female	Male
Top Management	8%	92%	5%	95%	5%	95%
Management Total	20%	80%	22%	78%	19%	81%
Total	23%	77%	21%	79%	20%	80%

Table 4: Executive Committee, Global Heads and Managing Directors



## BioFarm during COVID-19

*BioFarm is a highly specialised function within BioMar focused on education and best practice knowledge exchange. Restrictions brought about by the pandemic presented unique challenges in supporting our farmers.*

BioFarm is a vital function that is highly valued by our farmers. Due to the close collaboration required to support this operation, new ways of working were discovered during the pandemic that will now form part of the 'new normal' in BioFarm operations.

### BioFarm Goes Digital

The most remarkable change was the willingness of people to embrace the digital world with the use of surveillance and cloud based solutions. New technologies including augmented reality and Webinars were also adopted.

Looking through another person's eyes is now a reality with the use of goggles equipped with augmented reality making it possible to collaborate while being thousands of miles apart. Farmers can wear the glasses and be hands free on-site while a BioFarm person directs them through audio and visual cues from their computer to the wearer's goggles.

### Knowledge Exchange

The pandemic made it difficult to provide our portfolio of over 15 different type of courses dedicated to all aspects of aquaculture and business management. We launched AccessON as our web based solution for education.

The use of Webinars instead of conferences meant that we were able to reach up to 12 times more people than we would normally. With the



Marco Antonio Sepúlveda T.  
Technical Assistant, BioFarm Chile

decreased commitment time combined with no traveling, we were also able to attract great presenters to our sessions which expanded the knowledge pool.

Identifying and training key people on farm as the 'first line of defence' became even more important during the pandemic. BioMar will continue this training initiative throughout the coming years.

### BioFarm's 'New Normal'

Marco Antonio Sepúlveda is a Technical Assistant from the BioFarm team in Chile with 6 years in BioMar. He noticed that the pandemic encouraged the adoption of more digital solutions that resulted in greater collaboration with farmers.

Knowledge sharing through training and other programmes like ScienceON changed format. Events like Patagonic RAS and the Breakfast Series went online, which resulted in attendance levels more than 12 times higher than previous sessions. "The digital format made it possible to reach farmers who normally would have to travel long distances to attend our events and dedicate a significant amount of time," stated Marco.

Marco imagines that a new normal has been created and that around 50% of his collaboration time will be in person and the other will be digital, "as we will still need a personal touch".



67

BioFarm Experts



6 687

Farm Visits



105

Trials



31 191

Customer Analysis



15

Different Training Courses



5 624

People Trained



19 845

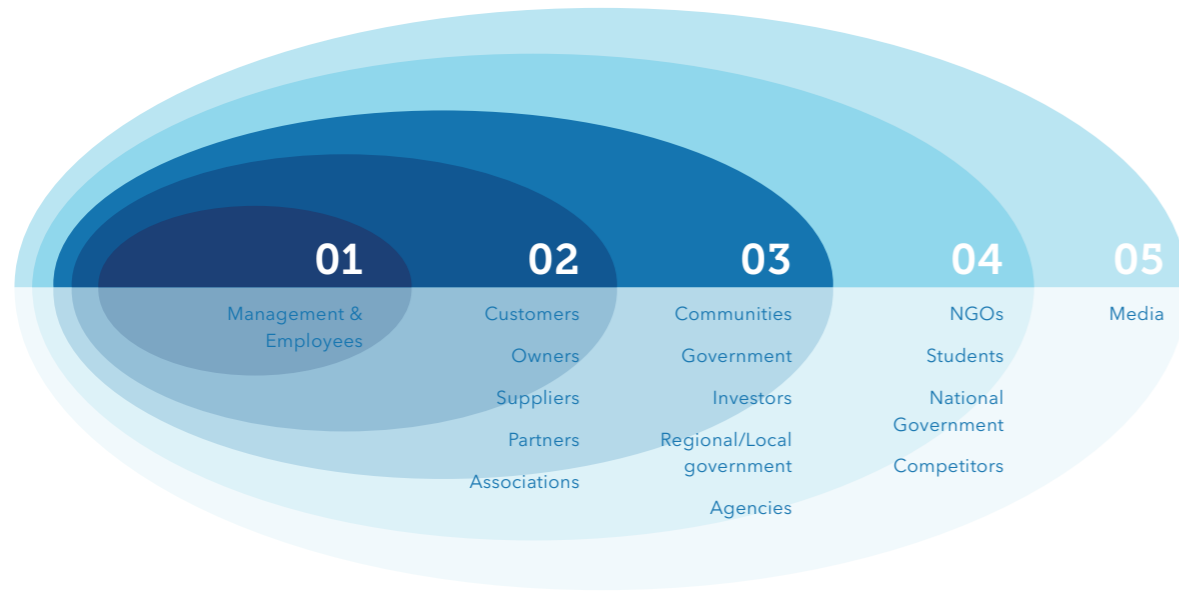
Training Hours



90

Countries Serviced

Figure 5. Stakeholder onion illustrating layers of stakeholders and interest groups of variable relevance and importance to BioMar.



## Stakeholder Management

*BioMar has a long tradition of networking and interacting with stakeholders from inside and outside the aquaculture industry. This has contributed to shaping BioMar into the company it is today.*

Throughout our history lasting more than 50 years, BioMar has engaged actively in a continued dialogue with internal and external stakeholders. There have been joint projects in improving nutritional and environmental performance of feed, and multi-stakeholder approaches for development of best practice standards in the industry. BioMar also support and are involved in public research projects and local educational activities. These activities strongly contribute to developing our corporate culture and driving continuous improvements in our operations and products. In the last chapter in this report, we share more details on our case studies along with other sustainability practices.

When it comes to sustainability and ESG, stakeholder engagement is of fundamental importance. Against the backdrop of new communications opportunities, such as social media, BioMar has recognized that we must engage with stakeholders in new ways, and that both virtual and actual representation is essential. Relating external engagement to core business activities is not an easy task, while building internal awareness and interest can be challenging in a global environment.

Our goal is to reach out to all interest groups to discuss and transform information, as well as learn from business intelligence. To do so, we need to map our stakeholders.

In mapping our stakeholders, we have identified those to whom we have a legal, commercial or moral responsibility, such as our regulators, customers and the communities around our facilities.

Employees and to some extent suppliers are important on an additional level since our business operations depend on them. Potential future clients or employees, such as students, are also important to us. We value diverse perspectives within our business, e.g. groups who can highlight new opportunities or areas that need attention, such as media or NGOs.

## Engagements

**Sustainable Fisheries Partnership**  
SFP | Member  
www.sustainablefish.org

**NORTH ATLANTIC PELAGIC ADVOCACY GROUP**  
NAPA Group | Member  
www.seafish.org

**Nordic BUSINESS NETWORK for HUMAN RIGHTS**  
Nordic Business Network for Human Rights | Committee Member  
www.humanrights.dk

**FEFAC**  
Experts in Animal Nutrition  
FEFAC | Committee Member  
www.fefac.eu

**HIGH LEVEL PANEL for A SUSTAINABLE OCEAN ECONOMY**  
High Level Panel for a Sustainable Ocean Economy Committee Member  
www.oceanpanel.org

**SB**  
Sustainable Brands | Member  
www.sustainablebrands.com

**European Aquaculture Technology and Innovation Platform**  
EATIP | Committee Member  
www.eatip.eu

**ASC**  
ASC | Committee Member  
www.asc-aqua.org

**GLOBALG.A.P.**  
GlobalG.A.P. | Contributor  
www.globalgap.org

**marin Trust**  
Marin Trust | Committee Member  
www.marin-trust.com

**RSPO**  
RSPO | Member  
www.rspo.org

**ProTerra FOUNDATION**  
ProTerra | Committee Member  
www.proterrafoundation.org

**RTRS**  
RTRS | Member  
www.responsiblesoy.org

**DONAU SOJA**  
Donau Soja | Supporter  
www.donausoja.org

**IFFO**  
THE MARINE INGREDIENTS ORGANISATION  
IFFO | Committee Member  
www.iffonet

**SSP**  
Sustainable Shrimp Partnership  
SSP | Member  
www.sustainableshrimppartnership.org

**gsi GLOBAL SALMON INITIATIVE**  
GSI | Committee Member  
www.globalsalmoninitiative.org



**SFP**  
| Member

[www.sustainablefish.org](http://www.sustainablefish.org)

Sustainable Fisheries Partnership (SFP) is working toward a world where all people will have the opportunity to eat sustainable seafood. They do this by engaging with seafood industry actors up and down the supply chain to provide information and promote responsible practices and policies that will reduce environmental impacts and ensure plentiful supplies of seafood for years to come.



**ProTerra**  
| Committee Member

[www.proterrafoundation.org](http://www.proterrafoundation.org)

The ProTerra Foundation is a not-for-profit organisation that aims to promote social and environmental responsibility at all levels of the feed and food production system. It assists all food operators to implement and demonstrate their sustainability commitment effectively.



**Ocean Panel**  
| Committee Member

[www.oceanpanel.org](http://www.oceanpanel.org)

The High Level Panel for a Sustainable Ocean Economy (Ocean Panel) is a unique initiative. 14 world leaders are building momentum for a sustainable ocean economy in which effective protection, sustainable production and equitable prosperity go hand in hand.



**NAPA**  
| Member

[www.seafish.org](http://www.seafish.org)

The North Atlantic Pelagic Advocacy (NAPA) Group is a market-led approach to improve North Atlantic pelagic fisheries management, in particular for mackerel, herring and blue whiting.



**Donau Soja**  
| Supporter

[www.donausoja.org](http://www.donausoja.org)

Donau Soja is an international, non-profit organisation based in Vienna. Donau Soja promotes a GM-free, sustainable and regional protein supply, for which the Donau Soja Standard and its Guidelines comprise the foundation pillars. The Donau Soja Organic Standard has been developed for organic soya bean production.



**GSI**  
| Committee Member

[www.globalsalmoninitiative.org](http://www.globalsalmoninitiative.org)

The Global Salmon Initiative (GSI) is a leadership initiative established by leading farmed salmon CEOs from around the world who share a vision of providing a healthy and sustainable source of protein to feed a growing population while minimizing their environmental footprint and continuing to improve their social and economic contribution.



# Materiality

*Sustainability is a very broad topic, which makes it important in understanding the key priorities when aligning time, resources and investment.*

In 2020/21, we conducted our fourth extensive materiality assessment addressing ESG topics and updated our materiality matrix based on the results. The Governance Group (TGG) was used as an independent third party to do the mapping and to ensure objective inputs from all parties.

Identifying material risks and opportunities associated with sustainability strengthens risk management, improves the basis for decision-making, and allows for more targeted communication.

The matrix functions as a guide in managing our sustainability agenda and our intention is to review and adjust the matrix every 2-3 years to meet external and business context changes. We concentrate on the highest priority items in our Global Sustainability Report.

Our sustainability strategy focuses on taking responsibility, minimising negative social and environmental impacts and enhancing our positive reputation. These focus areas make up the framework for our ambitions, targets and milestones.

		Importance to BioMar				
		Low	Medium	High		
			Bribery and corruption Responsible use of medicines Labour relations and rights	Environmentally responsible sourcing Ethical business conduct Socially responsible sourcing Employee health and safety Low-impact feed solutions/products	High	Importance to External Stakeholders
		Sustainability governance Hazardous materials and chemicals Climate risk	Diversity and equal opportunity Local communities Human rights Carbon footprint Stakeholder engagement Local ecosystem impacts in use Nutrition and public health	Supply chain risk Consumer health and safety Raising industry ESG standards	Medium	
		Emergency preparedness Water management Business partner and customer due diligence Political accountability Philanthropy and sponsorships	Employee development Standards and certifications Energy management Waste management Local pollution		Low	

Table 6: BioMar Group Materiality Matrix 2020/2021 conducted by The Governance Group.

Salmon and trout have a lower carbon footprint than other high protein dishes\*. What's more, you won't find a more nutritious and delicious food source. By choosing pink when reaching for meat in the supermarket, **you support your planet, one bite at a time.**



\*World Resources Institute. Protein Scorecard, April 2016. Comparison based on GHG emissions per gram of protein <https://www.wri.org/resources/data-visualizations/protein-scorecard>

Pink is  
the new  
Red



## Our Sustainability Commitment

**Through BioSustain™, we commit to mitigate sustainability risks while supporting value chain sustainability ventures. We promise transparency through annual disclosures in our integrated sustainability report.**

*BioMar's products and services seek to improve four essential aspects in aquaculture production: fish health, growth performance, production economy, and environmental impact.*

We work to optimise and strengthen sustainability in these four areas through our sustainability concept and improvement programme known as BioSustain™.

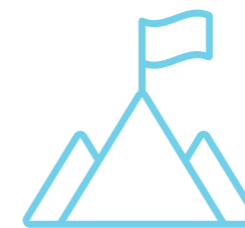
Our sustainability commitment includes continual improvement in our activities through:



Certified Management Systems



Cutting-Edge Knowledge



Challenging Goals for Improvements



Advanced Technology

# Putting Our House in Order

BioMar is environmentally conscious and continuously focuses on reducing the environmental impact in aqua feed manufacturing.

We have ambitious requirements and improvement targets covering all departments and operations, and all BioMar factories have modern production facilities that meet high standards for environmentally friendly production.

BioMar has developed and improved its product ranges over the years to reduce the environmental impact. This happens through focusing on sustainability throughout our internal value chain all starting with the responsible sourcing of raw materials.

The next step is the development and efficient production of feed, with a focus on developing high quality and efficient feed types, in which nutrients are utilised for growth, rather than lost to the environment. Reliable packaging and responsible transport to customers reflect our focus on sustainability. In addition, BioMar offers services to improve sustainability throughout the value chain.

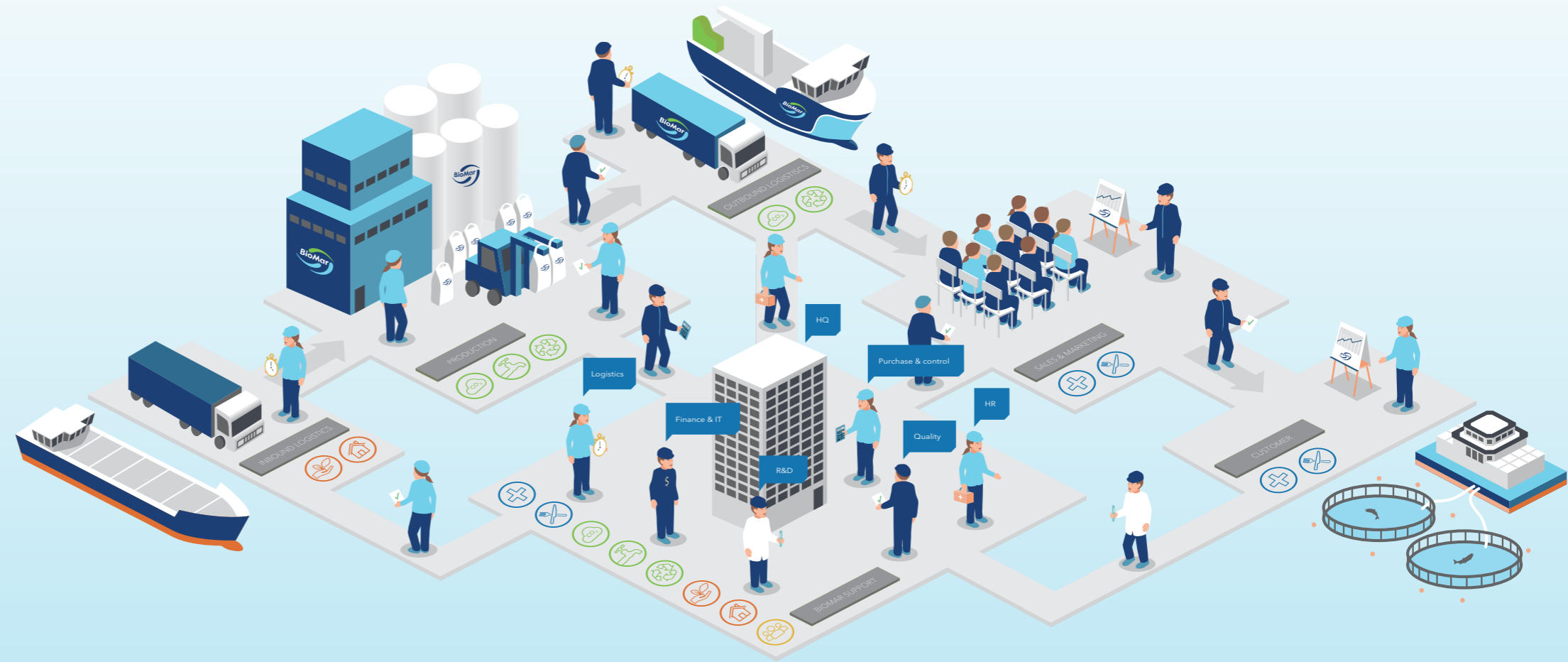


Figure 6: The internal value chain of BioMar, according to traditional organisational thinking (care and support processes), showing departmental focus areas indicated by icons related to the company's KPIs.



Health & Welfare



Nutrition & Food Safety



Sustainable Raw Materials



Better Living Conditions



Greenhouse Gases



Water



Waste



Employees

# BioSustain™

Applied, Science-Based Sustainability

*BioMar launched its sustainability concept and programme BioSustain™ in 2007 and, since then, sustainability has become an integral part of BioMar's corporate strategy. For a decade and a half, we have assessed, mapped and steered our raw material and product portfolio to create and drive more sustainable solutions for the industry. We call these solutions, Blue Impact.*

### Sustainable Solution Steering

Over a two-year period, BioMar has applied the Sustainable Solution Steering methodology to our raw materials and supply chain. BioMar strives to be the sustainability leader in the industry and this method provides us with a comprehensive and systematic tool that allows for transparency and documentation from raw material to end-product.

Sustainability in the aquaculture industry starts with the feed and its raw materials. Sustainable Solution Steering helps to foster the use of high quality, low-impact raw materials in feed recipes, thereby promoting more sustainable aquaculture and sustainably produced seafood.

The tool considers our entire value chain and respective markets, including industry and region-specific views. The approach reflects the economic, environmental and social aspects of the products and solutions for their various applications. The methodology was adapted for the aquaculture

feed industry by consulting with the Thinkstep company - now Sphera.

Sphera supports companies in all industries to customise and implement this approach - using a combination of consultancy, sustainability data and software tools.

The Sustainable Solution Steering method systematically reveals risks and opportunities along the entire value chain and enables the strategic steering of a product portfolio towards greater sustainability and revenue growth.

### Environmental Impact Assessment

Environmental Impact Assessment (EIA) is the systematic process of identifying and quantifying the environmental consequences of a current or proposed action. It can be used to improve transparency, practicability, flexibility, cost-effectiveness, credibility and accountability.

In a strategic partnership with BASF, in 2009, BioMar jointly developed

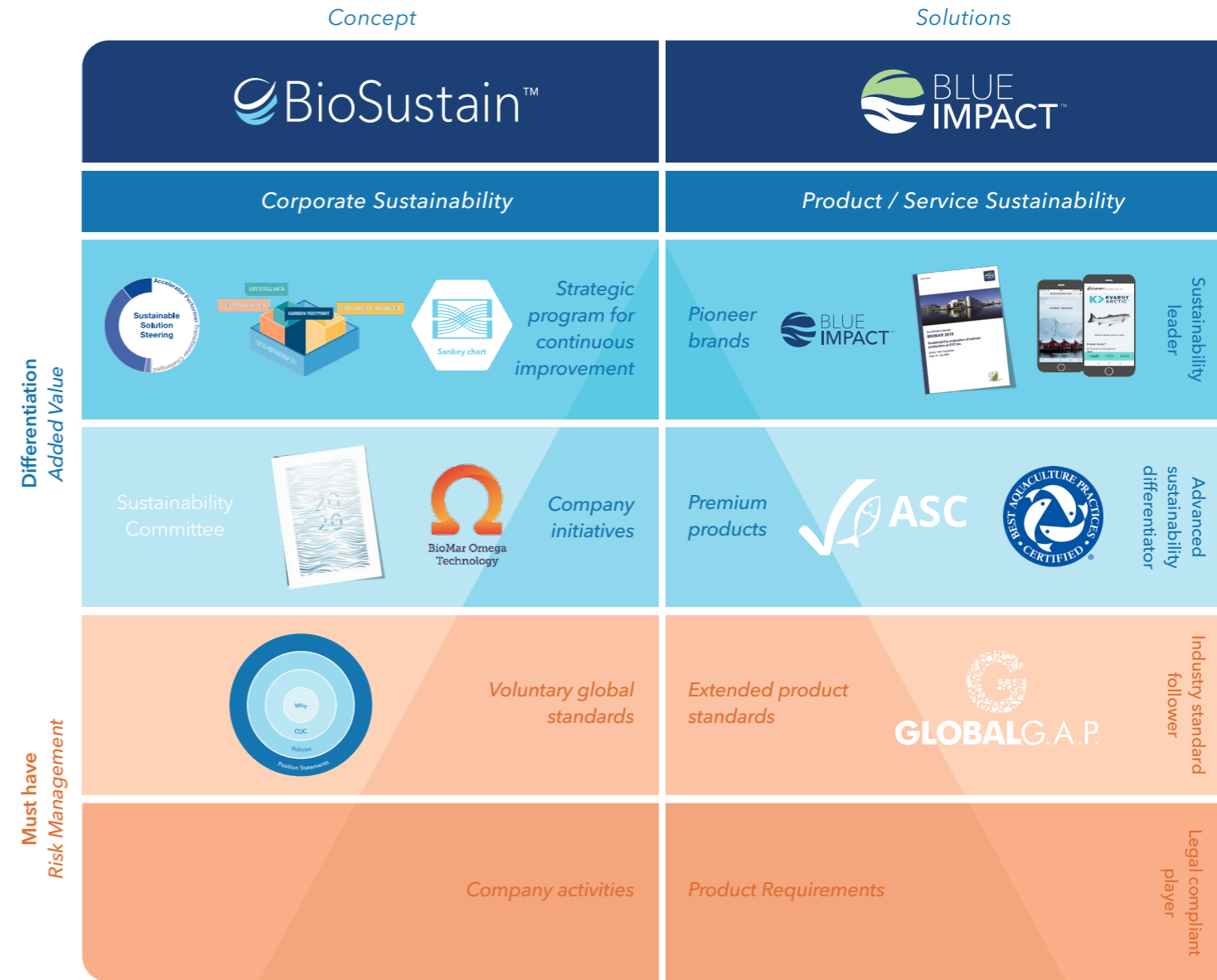
a dynamic tool for the aquaculture value chain to measure, optimise and document environmental impacts.

BioMar has taken it to another level by developing a new, innovative LCA tool specialised for the aquaculture and aquafeed industries. This tool will be used both strategically and for accountability, in order to document environmental impacts and improve our business. It will also provide a service to our customers and help them to increase the environmental competitiveness of their business.

This is the most sophisticated and dynamic LCA tool available, based on high quality background data and expert LCA knowledge. It will be used extensively for supporting customers and stakeholders seeking EIA documentation for certification and to add value.

### Circular Economy and Material Flow Analysis

The circular economy is gaining increasing currency as a strategy in



the pursuit of global sustainability. In a circular economy, products are recovered and renewed, and resources are kept in use for as long as possible to extract their maximum value. However, to reach a circular economy, tools are needed to understand our resource consumption and measure progress.

Material flow analysis (MFA) is one such method. MFA is an analytical tool that tracks and quantifies the consumption and losses of materials or substances within a defined system in order to identify strategies to optimize their use.

BioMar plays an active role in building a circular economy by using MFA to map key materials and identify business opportunities for increasing recycling and closing resource loops.

As our feed depends on scarce resources, such as phosphorus and wild fish stocks, BioMar prioritizes minimizing resource consumption and recovering and reusing by-products throughout the supply chain. We use MFA to aid in this strategic decision-making and partner with innovative raw material suppliers to realise our sustainability and circular economy goals.

### Blue Impact

Blue Impact solutions are the outcomes of BioSustain. Through the sustainability tools, methods and know-how that we continuously build, we enable business initiatives that materialize into products or services aimed for sustainable development. Blue Impact is the umbrella for these solutions.

BioSustain is applied, science-based sustainability. We make sustainability tangible.

## Materiality assessment high impact areas



## Business strategy focus areas



## Sustainable Development

Sustainable development is a joint effort by many parties and stakeholders. Businesses must lead the innovation process while governments regulate through policies and incentives. Consumers are the crucial motivators that determine both speed and success of change through purchasing behaviour.



## Addressing the UN SDGs

*Sustainable businesses operate in healthy and resilient societies. This is the logic that connects business objectives with the UN Sustainable Development Goals (UN SDGs). The UN SDGs have been shaped primarily for country-level adoption, but the goals can and should be adapted at company level.*

For companies with less mature sustainability strategies the SDGs offer a great opportunity to use a meaningful framework to move forward. For the more mature organisations it is about working out how the current strategy and activity address and overlap with the SDGs, then working out whether the gaps could or should be filled.

Whilst the SDGs themselves may appear vague, they provide the best indication of a sustainable future for society to aim towards. There is a clear role for businesses in supporting the goals for sustainable development, contributing alongside other stakeholders to addressing the challenges that the goals seek to achieve.

For BioMar, like any organisation with activities and supply-chains spanning the globe, attention must be paid to the large regional

differences when addressing, and in the likelihood of achieving, the SDGs. This tells any global organisation where the biggest challenges lie, but also where any activities would have the greatest impact.

Together with the Governance Group, BioMar has in 2020/21 remapped our current strategy, activities and communication and aligned our new materiality areas with the SDGs we identified as most relevant to us.

In the wake of this process, new partnerships and collaborative opportunities have also emerged. As a forward-thinking organisation, we are continuously building this knowledge into our strategy and innovating solutions in response to a changing world - sustainability is at the very core of our business strategy.

BioMar addresses these UN SDGs:



Compared to other protein rich foods, fish has one of the lowest carbon footprints\*. Choosing a fish dish is a simple way to support your planet. Do it the easy way, grab a fish burger, a couple of fish cakes or some fish and chips. **Changing the world, one bite at a time.**



\*World Resources Institute. Protein Scorecard, April 2016. Comparison based on GHG emissions per gram of protein <https://www.wri.org/resources/data-visualizations/protein-scorecard>



**Make a difference, one bite at a time**

# Our Sustainability KPIs

# 2015-2020

As a responsible global player, BioMar has identified several global KPIs in accordance with our materiality assessment. With these challenging metrics and goals, we seek to strengthen the sustainable development of our activities and improve the sustainability of the aquaculture value chain. A summary and conclusion of this period of KPIs is outlined on page 60.

Health & Quality		Environment		
Health & Welfare	Nutrition & Food Safety	Greenhouse Gasses	Water	Waste
<b>OVERALL KPI</b> Our health and functional feeds, SmartCare™, to be the global brand for functional feeds by 2020	All our products shall be risk assessed, comply with governmental regulations and traceable back to source of origin	We aim to reduce emissions of greenhouse gasses*	We aim to reduce the consumption of drinking quality fresh water in production*	We aim to assess waste generated from our manufacturing, primary waste from production and secondary waste from packaging and maintenance. Using the 3R model of reduce, recycle and recover
<b>SPECIFIC KPI</b> Above 80 % recognition of SmartCare™ among fish farmers in target markets by 2020.	100% of all products	20% reduction per kg feed by 2020**	10% reduction by 2020*	100% 3R by 2020
2014 n/a	100%	58 kg/tonne	n/a	n/a
2015 n/a	100%	57 kg/tonne	Use: 0.6 m³/MT Red.: n/a	99.6%
2016 Will be revised	100%	60 kg/tonne IEA data	Use: 0.55 m³/MT Red.: -8%	99.6%
2017 Restructure	100%	59 kg/tonne IEA data	Use: 0.55 m³/MT Red.: -8%	>99%
2018 SmartCare™, a targeted global health strategy	100%	58 kg/tonne IEA data	Use: 0.51 m³/MT Red.: -15%	>99%
2019 77%	100%	57 kg/tonne IEA data	Use: 0.52 m³/MT Red.: -13%	97%
2020 100% roll-out in all target markets	100%	62.5 kg/tonne IEA data	Use: 0.49 m³/MT Red.: -19%	97%

Benchmark/Baseline: 2014\* | 2016\*\* (reset due to company expansion)

Society								
Sustainable Raw Materials					Better Living Conditions	Employees		<b>OVERALL KPI</b>
Fishmeal	Fish oil	Krill	Soy	Palm oil				
We will use sustainable raw materials and continuously increase certification level of key raw materials					We aim to aid community and development projects in our geographic area of operations		We aim to ensure that all employees get regular feedback on their performance through a Performance and Development Dialogue (PDD), and have a plan to develop essential capabilities	
80% Certified by 2020 <sup>2</sup>	80% Certified by 2020 <sup>2</sup>	100% MSC by 2015 <sup>2</sup>	100% Certified by 2020 <sup>3</sup>	100% Certified by 2020 <sup>4</sup>	Framework ready by 2017	90% <sup>5</sup> of all positions are described by responsibilities and competence requirements <sup>1</sup>	90% <sup>5</sup> of all employees have taken part in a PDD within last 12 months <sup>1</sup>	<b>SPECIFIC KPI</b>
93%	76%	100%	71%	90%	Ongoing	n/a	14%	2014
92%	86%	100%	80%	84%	Ongoing	21%	31%	2015
81%	70%	100%	78%	63%	Will be revised	69%	59%	2016
89%	81%	100%	82%	100%	In Progress	77%	76%	2017
94%	83%	100%	92%	100%	Aligned with policies and integrated into our BioMar COC	70%	71%	2018
92%	80%	100%	92%	100%	Community aid: 55	82%	70% <sup>6</sup>	2019
90%	66%	100%	98%	100%	Community aid: 62	96%	35%	2020

1) China excluded | 2) Certification schemes: IFFO RS, MSC or equivalent | 3) Certification scheme: ProTerra, RTRS or equivalent  
4) Certification schemes: RSPO, GreenPalm or equivalent | 5) KPIs not set to 100% as new employees are continuously employed by the company.  
6) Ecuador excluded

Summary KPIs 2015-2020

# Improvement Programme Results

*In 2015, we set a 5-year improvement programme with 13 ambitious KPIs - hitting the mark on 9.*

In 2015, BioMar launched a comprehensive 5-year improvement programme focusing on Health & Quality, Environment and Society, each with several sub-categories and KPIs. These are the 2020 achievements and the conclusions of the programme.

### Health & Quality

In Health & Quality, we had two sub-categories, Health & Welfare and Nutrition & Food Safety with targets for 80% brand recognition of our functional feeds, and 100% risk assessment and traceability. We achieved 100% in both, with the roll-out for SmartCare™ and full assessments and traceability of all products.

### Environment

The Environmental focus was split into three sub-categories, Greenhouse Gases, Water and Waste with the intention of reducing impacts within each of them. The Greenhouse Gas KPI has been challenging due to company expansions and fluctuations in volume. We had a 4% increase in emissions per tonne of feed from the baseline instead of the 20% reduction target.

For Water use we over-achieved on our 10% target by reaching a 19% reduction. In the Waste category, we set a target of 100% recirculation of packaging waste, achieving 97% in 2020.

### Society

The sub-sections of Society are Sustainable Raw Materials, Better Living Conditions and Employees. For raw materials, we focused on certification levels of 'hotspot' raw materials like marine ingredients, soy and palm. For fishmeal and fish oil, the target level for each was 80%. We reached 90% and 66%, respectively. For krill and palm oil we reached the target of 100% certification and for soy we managed 98% certification with the target set at 100%.

Of the 90% target level for development plans and feedback in the Employee section, we obtained 96% and 35%, respectively. In 2020, we had 62 ongoing community aid projects in our area of operations.

COVID-19 presented a new set of challenges in meeting our ambitious KPIs. The pandemic had a major destabilising effect on global supply chains and operations. Despite that, BioMar showed that local agility can lead to resilience and innovation.



**Our promise to the planet and people**



Powered by Partnership  
Driven by Innovation

# Our 2030 Ambitions

*Humanity has burdened our planet and pushed beyond planetary boundaries. We must strive beyond sustainability and innovate with solutions that restore the planet while supporting its people.*

BioMar makes a promise to our planet and its people with a set of ambitious targets that will seek to aid in the restoration of our environment while enabling humanity to thrive.

We have established three key areas: Climate Action, Circular & Restorative and Enable People. This will allow us to focus our ambitions, although each area has several specific targets that will help us to achieve these objectives.

In Climate Action we are setting science-based targets to reduce carbon emissions by one third by 2030. We commit to setting company-wide emission targets in line with climate science that will ensure we are net-zero no later than 2050.

Through innovation and sourcing we will collaborate with industry partners and redefine traditional aquaculture feed ingredients. We will seek out raw materials that are Circular & Restorative both for planet and people.

To Enable People through capacity building is what creates resilient societies. By effectively enabling the few, we can have a resounding ripple effect on people far beyond our own traditional reach.

Our 2030 ambitions are aligned with science-based solutions for restoration and the growth trajectory of the aquaculture industry for 2050. Together, we can build a better future for both the planet and its people.

## Our Promise

BioMar makes a promise, to our planet and its people with a set of ambitious targets that will seek to aid in the regeneration of our environment while enabling humanity to thrive.



### 1/3 by 2030

**Reduce BioMar total feed GHG footprint by 1/3 by 2030**

BioMar is responding to an urgent call-to-action for companies to set emissions reduction targets backed by a global network of UN agencies, business and industry leaders. We have committed to set company-wide emission targets in line with climate science that will ensure we are net-zero no later than 2050.

BioMar will set verifiable science-based targets through the Science Based Targets initiative (SBTi), which independently assesses corporate emission reduction targets in line with what climate scientists define as needed to meet the goals of the Paris Agreement.<sup>12</sup>

With aquaculture feed representing a significant proportion of the carbon footprint of farming, our farmers will be able to directly benefit with a reduction in their own on-farm footprint.



### 50% by 2030

**BioMar feeds are 50% circular and restorative by 2030**

In BioMar we take action for our areas of responsibility. We encourage and stimulate restorative practices in our supply chain and we have set targets for minimum inclusion levels of circular and restorative ingredients.

BioMar considers raw materials originating from by-product and waste streams to be circular. We seek to decouple feed supply chains from directly competing with food for human consumption.

We define restorative ingredients as raw materials that significantly shift the balance between ecosystem impacts and human production systems towards net-positive environmental outcomes. An example of a restorative ingredient includes single cell protein produced from fermented forestry by-products.



### 100,000 by 2030

**100,000 people directly engaged in capacity building initiatives by 2030**

At BioMar we will actively engage our entire value chain as we believe we can create a far-reaching impact on the world through capacity building as this lies at the core of all resilient societies.

We will provide training courses and development programs for employees, farmers and communities. We will actively engage in third party agricultural and fishery improvement programmes and supplier improver initiatives. Through these initiatives we aim to directly enable 100,000 people per year by 2030.

We will promote human and labour rights through initiatives like responsible pay and diversity targets. Through innovation we will create aquafeeds enabling people to make healthier and more sustainable food choices. We will continue our commitment of active participation in the public debate around sustainable nutrition.







## Health and Quality

### Health and Welfare

Feed can be fortified with specific ingredients which not only aid the health and welfare of farmed fish and crustaceans but also increase nutrient value of the end-product.

The BioMar SmartCare concept is a targeted health and welfare strategy that provides the opportunity to grow more robust fish and shrimp by the use of bio-functional ingredients. The strategic use of SmartCare can aid in minimising use, and possible avoidance, of medicated feeds.

We have simplified the offering to address the three main health challenge areas to Resist, Control and Assist aquaculture species during difficult periods.

### Nutrition and Food Safety

Feed selection and feed regime have the highest significance in relation to the feed conversion ratio (FCR). Choice and allocation of feed, with respect to the potential yields for the fish throughout the year, and with respect to local conditions, are active steps that need to be taken to increase fish production. FCR is of crucial significance to the feed cost (FCR x feed price) for fish farming. FCR is an indicator of feed utilisation and will therefore have a strong influence on emissions from the aquaculture industry.

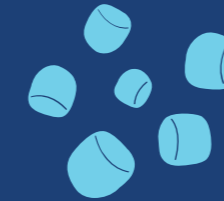
Higher feed quality provides better feed efficiency. High nutritional value, a balanced composition and healthy ingredients are the most important factors in feeding fish. The dynamic nature of aquaculture necessitates a focus on continual improvement.

The BioMar R&D programme is constantly generating new knowledge and developing new raw materials for feed. The R&D program is buoyed by our quality assurance system that ensures that feed is safe and reliable and can be reliably traced back to the source of origin of its nutrients.

We consider food safety to be one of our most important tasks and strive to reach the highest possible security. We impose strict internal procedures for all processes at every one of our facilities and apply a level of control that often exceeds official requirements. We fully assess our product portfolio on a global level.

In 2020, we found no major health and safety impacts, nor identified any non-compliance with regulations.

## Health & Welfare



100%

Our health and functional feeds, SmartCare™, to be the global brand for functional feeds by 2020

## Nutrition & Food Safety



100%

All products are risk assessed, comply with governmental regulations and traceable back to source of origin

Manufacturing Unit	ISO 9001	ISO 14001	ISO 22000	Global G.A.P.	BAP	Other	Production Volume	Approved Suppliers
Myre (NO)	✓	✓		✓			227,353	16%
Karmøy (NO)	✓	✓		✓			190,435	13%
Grangemouth (UK)	✓	✓	✓		✓		114,399	8%
Castro (CL)	✓	✓	✓	✓	✓	ISO 45001	67,236	5%
Pargua (CL)	✓	✓	✓	✓	✓	ISO 17025, ISO 45001	198,806	14%
Ercilla (CL)	✓	✓	✓	✓	✓	ISO 17025, ISO 45001	122,141	8%
Brande (DK)	✓			✓			123,560	9%
Nersac (FR)				✓			41,100	3%
Duenas (ES)	✓	✓		✓			34,296	2%
Volos (GR)	✓						55,477	4%
Soke - JV (TU)				✓			17,355	1%
Cañas - JV (CR)	✓			✓	✓	ISO 50001, ISO 17025	36,719	3%
BioMar-Tongwei - JV (CN) *	✓				✓		71,989	5%
Duran (EC)	✓			✓	✓		104,867	7%
Wesley Vale (AU)	✓						45,806	3%
<b>BioMar Group</b>	<b>13/15</b>	<b>7/15</b>	<b>4/15</b>	<b>11/15</b>	<b>7/15</b>		<b>1,451,539</b>	<b>100%</b>

Table 7. The table reveals certification schemes in BioMar manufacturing in 2020, along with unit production volume and the number of approved suppliers to manufacturing units.  
\* Haiwei and Wuxi

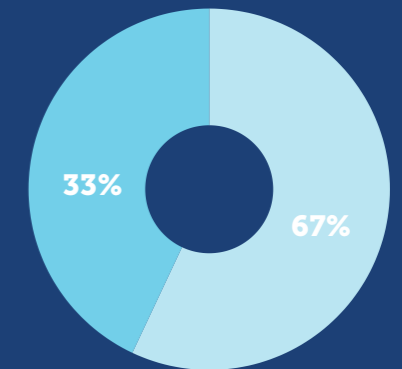


# Environment

Everything we produce and consume results in emissions, uses water and generates waste. Our strategy is to limit our impact by reducing consumption, minimising waste and carbon emissions whilst optimising recycling.

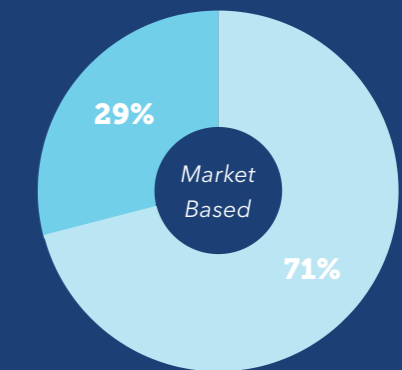
## Greenhouse Gasses

Distribution Energy Use

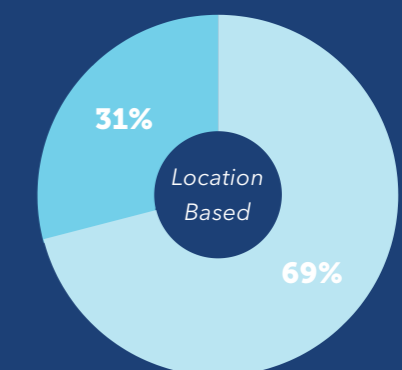


1.02 GJ / Tonne

Distribution GHG Emissions



62.5 Kg CO<sub>2</sub> / Tonne



64.5 Kg CO<sub>2</sub> / Tonne

Key: ● Scope 1 ● Scope 2

### Water



0.49 m<sup>3</sup> / MT

We aim to reduce the consumption of drinking quality fresh water in production.

19% reduction

### Waste



97% 3R in 2020

We aim to assess waste generated from our manufacturing, primary waste from production and secondary waste from packaging and maintenance. Using the 3R model of reduce, recycle and recover.



# Greenhouse Gases

## Energy management and greenhouse gases

The GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

A location-based method reflects the average emissions intensity of grids on which energy consumption occurs, while a market-based method reflects emissions from electricity that companies have purposefully chosen.

The total energy use and scope 1 and 2 GHG emissions at BioMar are presented in the table below.

Energy Use & GHG Emissions	Scope 1 (GJ)	Scope 2 (GJ)	Total Energy (GJ)	Location Based Total Emissions (CO <sub>2</sub> e, MT)	Market Based Total Emissions (CO <sub>2</sub> e, MT)
Salmon Division	692,171	297,267	989,437	62,042	59,276
EMEA Division	210,783	87,224	298,007	17,025	17,025
Asia Division	-	29,737	29,737	4,798	4,798
LATAM Division	55,397	54,169	109,566	6,023	6,023
<b>TOTAL</b>	<b>958,354</b>	<b>468,396</b>	<b>1,426,747</b>	<b>89,887</b>	<b>87,121</b>

Table 8. The table discloses scope 1 and 2 energy use in gigajoule (GJ) and total greenhouse gas (GHG) emissions in tonnes of CO<sub>2</sub> equivalents by BioMar manufacturing divisions in 2020 using IEA factors, expressed as both location based and market based figures in accordance with the SBTi and GHG protocol. <sup>10, 12</sup>



# Water & Waste Management

## Water Management

Drinking water is a scarce but vital resource. Even though water availability is not a challenge in most areas where BioMar operates, we do affect the consumption of this scarce resource by purchasing raw materials that consume considerable amounts of water where they are produced. This is often in areas where water shortage is critical. We address this problem by sourcing raw materials following international guidelines and certification schemes, in which responsible water use has a high priority.

Water is used in almost all food manufacturing processes. The "water footprint" of a product is the quantity of water directly consumed during its production, as well as the water consumed indirectly in the product's supply chain. A water footprint is made up of three types of water consumption: the blue, green and grey water footprints. The green water footprint is the volume of rainwater stored in soil and which evaporates.<sup>13</sup>

The blue water footprint is the volume of freshwater taken from surface layers (lakes, rivers, reservoirs) and groundwater resources (aquifers). This water is either evaporated, removed and relocated to a different water body or incorporated into a product. The largest share of the global blue water footprint occurs in crop fields as a result of the evaporation of irrigation water. The grey-water footprint is the volume of water polluted as a result of agricultural and industrial production processes and wastewater from household water use. It is the volume of water required to dilute pollutants to such an extent that the water quality reaches acceptable levels.

## Waste Management

It is estimated that over 2.01 billion tonnes of municipal solid waste (MSW) is generated annually, with approximately 660 million tonnes being managed in an environmentally unsafe way. When projecting into the future, MSW doesn't seem to be a problem that

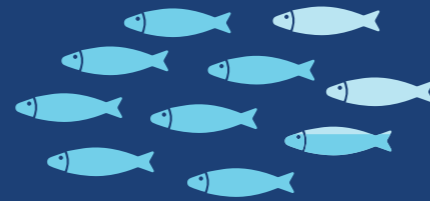
will be solved in the short to medium term. In fact, MSW generation is expected to grow dramatically and reach an astounding 3.4 billion tonnes by 2050.<sup>14</sup>

BioMar is working across the entire supply chain to ensure that we do our part in improving waste management. For us, the primary source of MSW is from raw material packaging and feed bags. Our strategy to ensure that this waste does not lead to environmental pollution follows the waste hierarchy, where waste prevention and avoidance are prioritized followed by resource recovery (e.g. re-use and recycling) and, finally, environmentally-responsible waste disposal. This strategy is implemented as part of the quality management system at all BioMar manufacturing plants and also covered by the ISO 14001 standard.

# Raw Materials

BioMar makes ongoing assessments of precisely which purchasing criteria are necessary to ensure and document that raw materials associated with special sustainability issues are responsibly sourced.

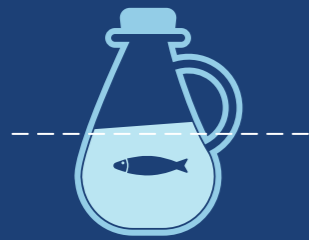
## Fishmeal



**90% Certified**

Certification Schemes: MSC, MarinTrust, FIP or equivalent

## Fish oil



**66% Certified**

Certification Schemes: MSC, MarinTrust, FIP or equivalent

## Krill meal



**100% Certified**

Certification Scheme: MSC

## Soy



**98% Certified**

Certification Schemes: RTRS, ProTerra or equivalent

## Palm oil



**100% Certified**

Certification Schemes: RSPO, Green Palm or equivalent



## Sustainable Raw Materials

*We are using responsibly sourced raw materials that can be traced back to their source of origin.*

BioMar makes ongoing assessments of precisely which purchasing criteria are necessary to ensure and document that raw materials associated with special sustainability issues are responsibly sourced. Purchases of marine raw materials, soya bean and palm products are subject to specific requirements. BioMar keeps track of the percentage of marine raw material deliveries originating from FAO COC approved fisheries, for example, MarinTrust, MSC or equivalent, including fishery improvement programmes (FIPs).

BioMar buys exclusively deforestation-free soya bean and palm products. We also aim, as far as possible, to utilise by-product raw materials in our feed production.

### Compliance with Sourcing Policy

BioMar Group Sourcing is a centralised organisation for the sourcing and purchasing of raw materials for BioMar. Although additional requirements may apply for some markets, BioMar Group Sourcing operates according to the following minimum standards:

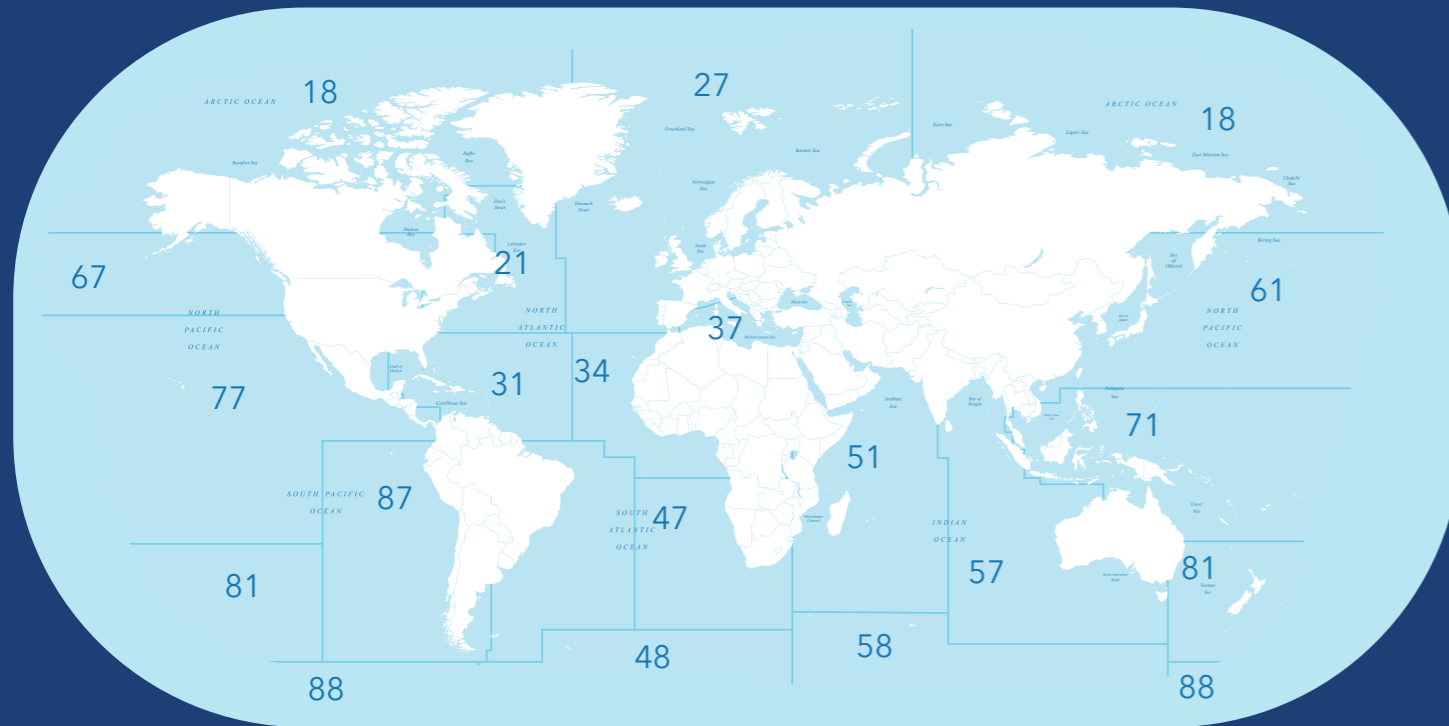
Criteria	Goal	Compliance	Notes
Legal	100%	100%	National and international regulations
Traceable	100%	100%	Full traceability through supply chain, back to country of origin
Credibility: IFFO/MarinTrust Zero deforestation ProTerra RSPO	KPI	On track (Soy) (Palm oil)	Board member NEW YORK declaration Participating member Supporting member
SAAT Approval	100%	100%	Details on page 77
RM Specification	100%	100%	SAAT
R&D Validated	100%	100%	Nutritional and technical
<b>Compliance to Policy</b>	<b>100%</b>	<b>100%</b>	

Table 9. BioMar sourcing policy's minimum criteria to which suppliers and raw materials must comply and perform.

Figure 7: This graphic discloses certification in percentage terms of hot topic raw materials used in BioMar feed in 2020.



## FAO Major Fishing Areas



Area	Sea	Area	Sea
18	Arctic Sea	57	Indian Ocean, Eastern
21	Atlantic, Northwest	58	Indian Ocean, Antarctic & Southern
27	Atlantic, Northeast	61	Pacific, Northwest
31	Atlantic, Western Central	67	Pacific, Northeast
34	Atlantic, Eastern Central	71	Pacific, Western Central
37	Mediterranean and Black Sea	77	Pacific, Eastern Central
41	Atlantic, Southwest	81	Pacific, Southwest
47	Atlantic, Southeast	87	Pacific, Southeast
48	Atlantic, Antarctic	88	Pacific, Antarctic
51	Indian Ocean, Western		

## Marine Ingredients

Species	Fishing Areas	Marine Protein		Marine Oil		Total Volume			
		Tonnes	Share	Tonnes	Share	Tonnes	Share	Trimmings	
Peruvian Anchoveta	87	64,120	30.5 %	25,618	21.2 %	89,737	27.1 %	0%	
Atlantic Herring	27	37,427	17.8 %	11,221	9.1 %	48,648	14.6 %	69%	
Blue Whiting	27	21,842	10.4 %	507	0.4 %	22,349	6.7 %	0%	
Sandeel	27	15,355	7.3 %	2,954	2.4 %	18,309	5.5 %	0%	
Anchovy	34, 37, 47, 51, 61, 71	1,079	0.5 %	16,278	13.2 %	17,357	5.2 %	1%	
Antarctic Krill	48	14,881	7.1 %	0	0.0 %	14,881	4.5 %	0%	
Chub / Jack Mackerel	87	10,586	5.0 %	2,904	2.4 %	13,490	4.0 %	2%	
Farmed Salmon trimmings	27	1,074	0.5 %	11,030	9.0 %	12,104	3.6 %	100%	
Tuna Trimmings	21, 27, 31, 34, 47, 51, 57	10,578	5.0 %	1,120	0.9 %	11,698	3.5 %	100%	
Araucanian Herring	87	7,867	3.7 %	3,685	3.0 %	11,552	3.5 %	0%	
Sardinella	34	0	0.0 %	11,438	9.3 %	11,438	3.4 %	9%	
South American Pilchard	77	235	0.1 %	9,983	8.1 %	10,218	3.1 %	0%	
Wild seafood by-products*	27, 34, 57, 77, 87	5,134	2.4 %	3,842	3.1 %	8,976	2.7 %	79%	
European Pilchard	27, 34, 37	4,555	2.2 %	3,190	2.6 %	7,745	2.3 %	54%	
Atlantic Mackerel Spp.	27, 34	2,262	1.1 %	3,673	3.0 %	5,935	1.8 %	73%	
European Sprat	27	2,323	1.1 %	2,683	2.2 %	5,006	1.5 %	3%	
Alaska Pollock	18, 67	0	0.0 %	4,563	3.7 %	4,563	1.4 %	100%	
Pacific Anchoveta	77, 87	817	0.4 %	3,191	2.6 %	4,008	1.2 %	0%	
Menhaden	31	3,433	1.6 %	477	0.4 %	3,911	1.2 %	0%	
Norway Pout	27	2,553	1.2 %	306	0.2 %	2,859	0.9 %	2%	
Other	21, 27, 31, 34, 47, 77, 87	1,486	0.7 %	1,148	0.9 %	2,634	0.8 %	3%	
Indian Oil Sardine	51	1,483	0.7 %	1,053	0.9 %	2,536	0.8 %	0%	
Red-Eye Round Herring	47	875	0.4 %	165	0.1 %	1,040	0.3 %	4%	
		<b>Total</b>	<b>209,966</b>	<b>100.0 %</b>	<b>121,029</b>	<b>100.0 %</b>	<b>330,995</b>	<b>100.0 %</b>	
		<b>MSC</b>	83,172	39.6 %	27,132	22.4 %	110,304	33.3 %	
		<b>MarinTrust</b>	177,827	84.7 %	62,714	51.8 %	240,541	72.7 %	
		<b>Fishery Improvement Projects</b>	11,986	5.7 %	9,212	7.6 %	21,198	6.4 %	
		<b>ASC Compliance**</b>	167,681	79.9 %	80,196	66.3 %	247,878	74.9 %	
		<b>Trimmings</b>	48,034	22.9 %	31,121	25.7 %	79,155	23.9 %	
		<b>MarinTrust + FIP</b>	189,813	90.4 %	71,926	59.4 %	261,739	79.1 %	

Table 10. Species in marine meals and oils used by BioMar in 2020 are disclosed in the table above in descending order, according to total volume (metric tonnes). Respective shares of species and MSC, MarinTrust, FIP and ASC-compliant material is also shown. China volumes are not included.

\*Includes species landed in compliance with the revised EU Common Fisheries Policy Landing Obligation (discards ban), fully implemented on January 1st, 2019.

\*\*ASC Compliance in accordance with species standards and their respective indicators in the ASC Interim solution for marine ingredients <sup>15</sup>

# Carbon Footprint

Tonnes of CO<sub>2</sub>-eq. per tonne of feed

## 2.17

### The BioMar feed carbon footprint

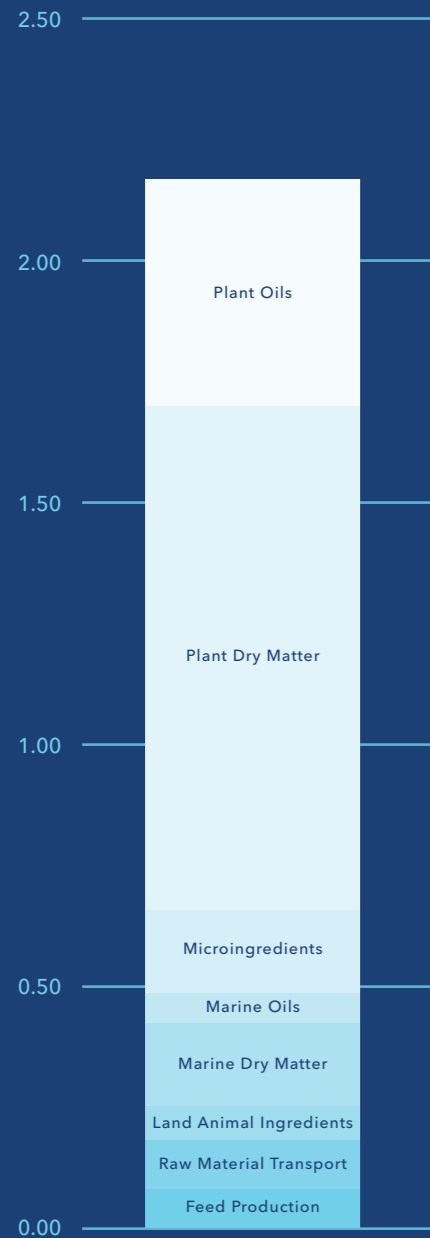
The Carbon Footprint (CF) of feed is a measure of the total greenhouse gas emissions generated from the different stages of the feed's life cycle. Feed footprints are associated with a scope, most commonly "cradle-to-gate" or "cradle-to-grave." Cradle-to-gate assessments measure the total greenhouse gas emissions from raw material extraction and product manufacturing through to the factory gate, whilst cradle-to-grave includes the aforementioned emissions in addition to distribution, use and end-of-life.

A Carbon Footprint indicates the product's impacts on the climate, in particular global warming, and is expressed as kilograms of CO<sub>2</sub> equivalents per tonne of produced feed.

The BioMar feed Carbon Footprint is a cradle-to-gate assessment that follows the European Union Product Environmental Footprint (EU PEF) methodology, a harmonised EU methodology for measuring the environmental impacts of products. The methodology has recently been updated and includes peat and land use change.<sup>16</sup>

In 2020, the average BioMar group feed Carbon Footprint was 2.17 tonnes of CO<sub>2</sub> equivalents per tonne of feed produced.

Figure 8. (left) The overall annual Carbon Footprint per tonne of feed produced in BioMar Group in 2020.



## Fish In : Fish Out

The Fish In : Fish Out (FIFO) ratio indicates the overall quantity of wild-caught fish used per quantity of cultured fish produced.

feed conversion ratio and divided by their corresponding contribution factors.

According to the ASC standards, this measure is referred to as the forage fish dependency ratio (FFDR) and should be calculated for both fishmeal and fish oil using the inclusion levels of marine meals and marine oils in the feed recipe. This must be multiplied by the

The figures below represent BioMar's global raw material usage in feed production and the FCR is therefore set to 1.0. The 2020 figures represented a higher FIFO ratio, due to lower availability of trimmings, in part due to disrupted supply chains caused by the global pandemic.

BioMar Group	2016	2017	2018	2019	2020
FFDRm (Fishmeal)	0.58	0.85	0.53	0.48	0.49
FFDRo (Fish oil)	0.93	1.05	0.87	0.94	1.23
<b>FIFO</b>	<b>0.93</b>	<b>1.05</b>	<b>0.87</b>	<b>0.94</b>	<b>1.23</b>

Table 11: BioMar Group Fish-In:Fish-out ratios calculated according to the ASC formula - Forage Fish Dependency Ratio for meal and oil.<sup>17</sup>

# Raw Material Distribution

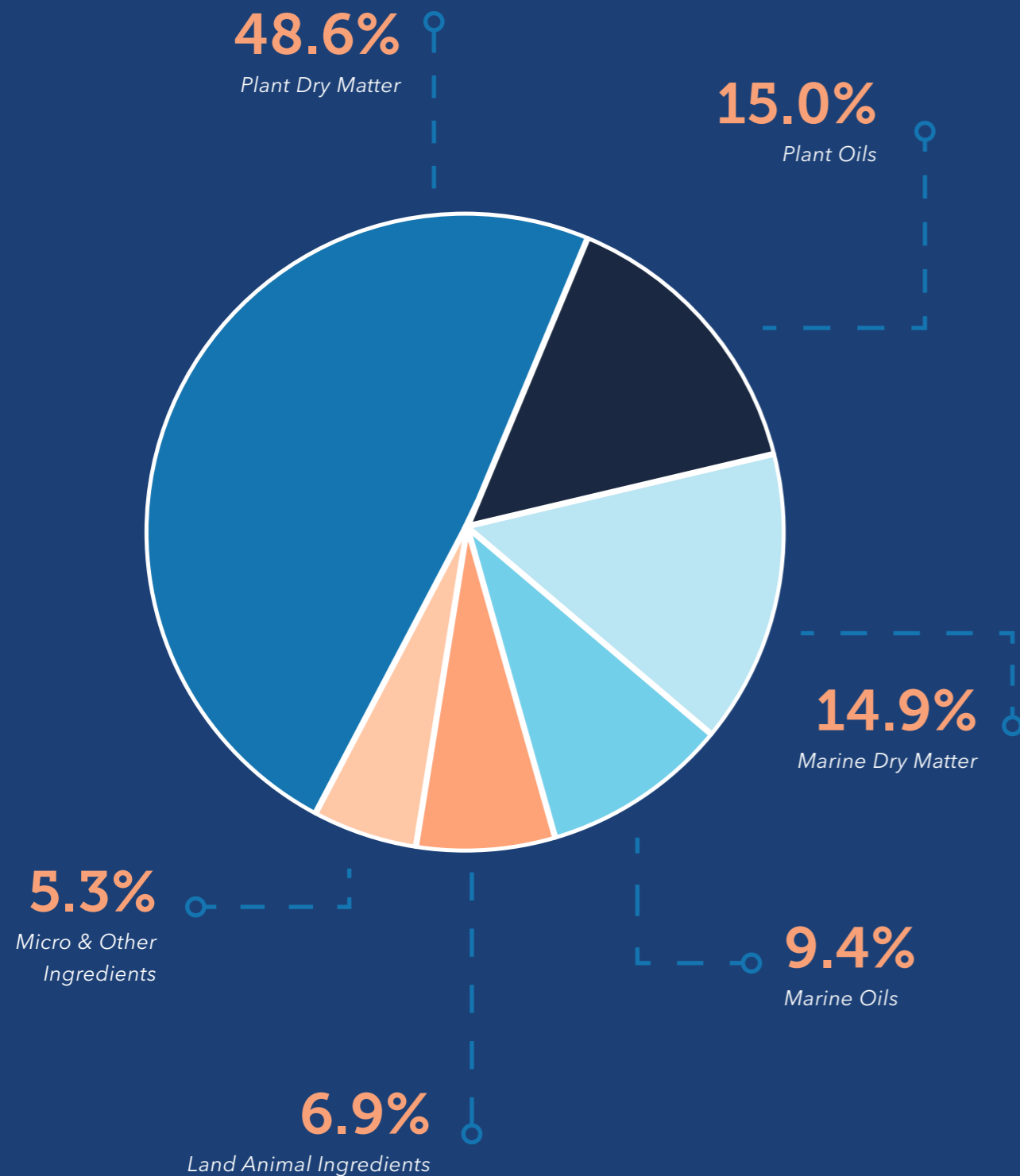


Figure 9. Distribution of the major nutritional contributors making up BioMar Group's total feed recipe of 2020.



## Raw Materials

(Collaboration of departments to find new sources of raw materials)



## Seeking & Approval of Suppliers

(Quality assurances, code of conduct, ethics, sustainability and auditing)



## Approval of Raw Materials

(Quality assurances, sustainability, auditing and traceability)

**Risk Assessment**  
(Raw material and supplier)



## Purchasing



## Logistics



## Responsible Sourcing

*Sustainable and high performance feeds all begin with the sourcing of high-quality raw materials. The Responsible Sourcing of raw materials is an essential part of our product portfolio.*

We are committed to conducting responsible sourcing with integrity and high ethical standards. To ensure this applies throughout our supply chain, we require all our suppliers to adhere to our 5 Fundamental Principles:

1. Conducting business lawfully and with integrity
2. Being dedicated to collaboration and transparency
3. Ensuring product quality and food safety
4. Protecting natural resources
5. Upholding human and labour rights

### Supplier Management

BioMar's internal supplier program SAAT, (Supplier, Approval, Audit, and Traceability) sets out to approve, monitor and develop suppliers to jointly create a future based on mutual responsibility principles. Risk mitigation and quality assurance of both suppliers and raw materials are managed through annual evaluations and continuous updates of important supplier documents.

Undertaking audits supports the continuous quality and traceability assurance and development of our suppliers. Therefore, BioMar engages in supplier dialogue and performs regular on-site audits where suppliers must demonstrate compliance with BioMar standards such as the Code of Conduct for suppliers, specifications, and the Responsible Sourcing Policy.

The pandemic has taught us that on-site audits are not always possible or practical, so we have increasingly incorporated online audits into our supplier program. These enable us to have a more sustainable approach to verifying our suppliers' compliance.

Supplier procedures and processes can often be verified through an efficient online audit. We have effectively conducted traceability tests, certification verification, and quality system documentation. Our ambition is to seek opportunities to further utilise virtual audits and we look to integrate them into our supplier program going forward.



# Society

*In BioMar, we are very aware that our responsibility goes beyond our own workforce.*

In many countries around the world, the pandemic has clearly uncovered social inequality. People without a secured income have suffered from lack of access to basic necessities such as food, health care and education.

In BioMar, we have, as the waves have been rolling, striven to support our local communities coping with the social consequences of the pandemic. Especially in the Latin American countries and Russia our staff have been engaged in finding solutions which could support the communities in the best possible way.

In Chile, one of our factories is situated on a remote island without access to emergency equipment for treatment of patients with COVID-19. Hence one of our priorities in this area was to deliver hospital and medical equipment to ensure the population had access to basic treatment.

Around all plants in Chile, we took part in delivering food boxes to the people, who were suddenly suffering from a lack of income and where basic necessities were in short supply for children as well as for adults.

At the same time, we aimed to ensure our continuous contribution to educating the communities by establishing formal training online as part of educational programmes in the region, and several of our employees volunteered as teachers in online programmes for high schools in the region.

Left: In October 2020, BioMar donated 500 trees to the Prefecture of Guayas. The trees were used to reforest areas of the province in which they are working with foundations and the community to recover a green landscape.

Right: Eduardo Corral, Technical Director Biofarm, Guayas area, with customers Lanec Corporation in a meeting on a Shrimp Farm, working hand in hand with the producers and advising them throughout the production process.







## People before profit

*All the way from our owner, the message has been clear when prioritising resources and time during the pandemic. People must always go before profit! We have a responsibility to keep our business open as we are feeding animals, but we must always do our best to secure the health and wellbeing of our employees.*

As the feed industry in all countries has been categorized as an essential industry due to our role in the production of food, we have never been subject to a lockdown of our factories.

Hence, we have assumed a major responsibility in protecting the health and safety of our staff. We have carried out in-depth risk assessments and taken measures implementing policies and processes for the use of protective equipment, for sanitizing, testing, and social distancing, and ensuring the risk of virus spreading in our facilities or during transportation has been minimized. These measures have ensured that almost no transfer of virus between employees has been detected or suspected.

During the year we have been in close dialogue with unions and employee representation in rearranging shift patterns, ensuring inclusion of new staff and organising handovers of shifts so as to be able to operate our facilities with more limited contact points between workers. The collaboration between BioMar and employee

organizations has again shown its worth in designing agile solutions to keep the business up and running while safeguarding workplaces in the communities. To BioMar, this dialogue and collaboration are fundamental. We believe in creating and maintaining sustainable relationships with employees as well as with other stakeholders.

The increased focus on health and safety has also impacted our incident rate in a positive way, bringing our LTI rate down to the lowest level we have registered for more than a decade.

### Engagement & Wellbeing

However, health is more than being in good physical shape. We know that new procedures, fear, social isolation and tough working conditions while ensuring a steady flow of feed to the customers has caused a challenge to the mental health and wellbeing of our employees. Both globally and locally, we have taken a range of initiatives to make sure we were supporting our employees as much as possible during the crisis.

## Pandemic initiatives: Safety

- Commitment to People before profit all the way from owners
- Separation of shifts in production
- Hygienic Measures implemented
- Personal Protection Equipment
- Working from home during lock-downs
- Redesign of shift patterns
- New and efficient IT tools
- International travel restricted
- Redesigned standard operating processes/policies

## Pandemic initiatives: Mental Health

### GLOBAL

- People before profit communicated across BioMar
- Purpose-driven communication
- BioMar Employee Engagement Survey adapted to pandemic
- Virtual Learning offerings
- Social activities to connect people
- Reinforcing focus on employee safety
- New and efficient IT tools
- No forced travel at any point
- Enabling local agility to meet challenges

### LOCAL

- HR in contact with workers around work and well-being
- Daily contact between employees and manager
- Focus on mental health in Employee Dialogues
- Training in disease prevention/wellbeing/rehabilitation/motivation
- Individual adaption of work schedules and place of work
- Social activities online
- Acknowledgment and communication from management
- Special incentives during lock-down
- Professional conversations with health staff/psychologists

While some white foods can be full of empty calories, fish are packed full of goodness. They also have a smaller carbon footprint compared to other high protein foods\*. Choosing a fish dish is an easy way to support your planet. **Make a difference, one bite at a time.**



\*World Resources Institute. Protein Scorecard, April 2016. Comparison based on GHG emissions per gram of protein  
<https://www.wri.org/resources/data-visualizations/protein-scorecard>

A close-up photograph of a hand holding a piece of white fish, possibly a fillet of cod or haddock. The fish is held between the fingers, and there is a small amount of red, likely blood or seasoning, on the surface of the fish. The background is a soft, out-of-focus light blue. Overlaid on the image in large, bold, white sans-serif font is the text 'The guilt-free white food'.

# The guilt-free white food

# Stories of 2020



## Sustainable Nutrition Campaign

*The seafood industry delivers a high protein food with one of the lowest environmental footprints*

The industry has come a long way over the last two decades by adopting responsible farming practices and creating sustainable feeds, yet it is still overshadowed by a history of unsustainable practices.

In 2020 we have seen a shift in the market towards more positive messaging around seafood from key NGOs, partly led by a holistic view of the global food system. WWF launched their Planet Diet complete with menu planner where seafood features more prominently than other high protein foods. They encourage consumers to purchase certified seafood, and it's clear they see it as part of the solution in a planet-friendly diet.<sup>18</sup>

This move is not surprising given that fish has a smaller environmental impact compared to other high protein food choices, as showed in the Protein Scorecard by the World Resources Institute. Research conducted in November 2020 by Globalscan showed that 71% of consumers want to reduce their environmental footprint and 45% even feel guilty about their impact on the planet.<sup>19</sup>

That is why BioMar created the Sustainable Nutrition campaign to help inspire a new, simple consumer-driven message that applies to all seafood.

For most people helping to solve climate change seems too large and complicated a problem. This campaign was designed to show people that with a simple food choice they can make a difference, one bite at a time.

[www.supportyourplanet.com](http://www.supportyourplanet.com)



## From Soldier to Farmer

*Aquaculture brings new purpose to soldiers impacted by war*

The African seafood sector is dominated by wild capture (82%), while the aquaculture industry has a large growth potential. Africa is the second most populous continent in the world, but represents only 2.7% of global aquaculture production. Many of the wild key species essential for food security, are currently harvested at maximum sustainable levels or overfished. Climate change impacts on marine capture fisheries are projected to be more significant in tropical regions such as Africa. This fact, coupled with an increasing rate of population growth higher than wild seafood supply, is causing aquaculture expansion to be seen as the key to food security in the region.<sup>2</sup>

Cameroonian soldiers who were injured during the war against Boko Haram have been retrained as aquaculture and agriculture farmers. The Rapid Intervention Battalion (BIR), an elite unit of the Cameroonian Defence Force started this initiative to ensure new employment opportunities for their wounded soldiers. BioMar sponsored this initiative by donating equipment and providing BioFarm knowledge. The food produced during the training was consumed by their comrades in arms engaged on the battlefield.

Lieutenant Ibrahim Djekaibe, commander of the depot company of Limbe, was wounded by a landmine while on patrol and now walks with the aid of a prosthesis. He and the other students were reminded during their graduation ceremony by Deputy Inspector General of the BIR, Mr Onambe Mendouga, that the BIR emblem is the shield of the Cameroonian people and that, although wounded, they can continue to bring food security to the nation.

## Deforestation-Free Soy

*European salmon farmers become the first ever to ensure a completely deforestation-free supply chain for soybeans.*

While BioMar has long ensured that soy from deforested areas has not entered our supply chain, this announcement showed that through collaboration the aquaculture industry can drive sustainable change. This bold and historic move sets a new benchmark for global sustainable supply chains.

Maurício Voivodic, Executive Director WWF Brazil, remarked that he hoped it would “inspire other global animal protein sectors as well as other markets linked to the soy supply chain.”

Ida Breckan Claudi, a senior advisor at Rainforest Foundation Norway, also praised the initiative saying that it showed “true leadership and sets the new bar for sustainable supply chains.”

Most of the global farmed salmon industry, including the entire European salmon sector, now source from Brazilian suppliers whose soybean supply chains are 100% deforestation and conversion free. This is another good example of the aquaculture industry’s ability to drive sustainable change above and beyond legislation for the good of the planet. Soy used in aquaculture feeds represents less than 0.5% of the total global soy production.



## Mauritania Small Pelagics Fishery Improver Programme (FIP) <sup>21</sup>

*At BioMar, we believe we have a responsibility to help make the world better. We choose to participate in the MarinTrust Mauritania FIP due to its focus on artisan fishermen, science-based stock management, and ensuring a percentage of the catch goes to building resilient Mauritanian communities.*

The goal of this project is to infuse the best science into fisheries management, while improving communication between fisheries stakeholders and fisheries managers. There are several challenges associated with sourcing marine ingredients in West Africa, but we believe that our presence, through the FIP, will lead to positive change that will benefit the region in the long-term.

Significant improvements are already being seen with the publishing of a decree by the Mauritanian Ministry of Fisheries for the National Fisheries Plan. It will no longer be permitted for important keystone West African species vital for food security to be used for fishmeal or fish oil production. These are Horse Mackerel, Round Sardinella (*Sardinella aurita*), Yellow Mullet or Meagre (*Agyrosomus regius*). It is now the law that 20% of all catch must be destined for regional human consumption supply chains and must be traceable.<sup>22</sup>

Mauritania established a progressive zoning scheme to ensure that the artisanal fishing fleet have year-round access to fishing grounds. Currently, the Small Pelagics Fishery is enforcing a closure until the end of July 2021 for industrial vessels to allow fish stocks to recover. During the closure, FM & FO factories are investing in infrastructure (ice machines, freezing capacity, etc.) to improve their ability to harvest and sell small pelagic species to regional seafood markets. This will aid regional food security, which generally lacks the infrastructure necessary to scale up seafood production.

# First BAP Trout Feed in China

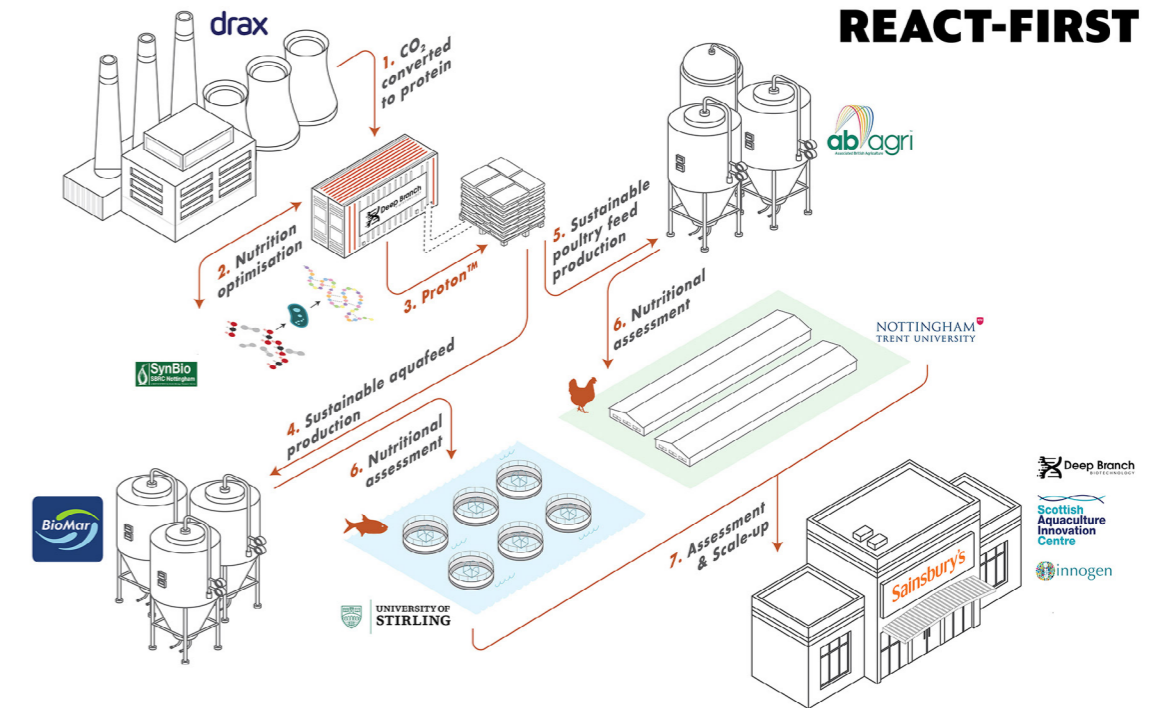
*BioMar's joint venture with Tongwei in Wuxi has received the first Best Aquaculture Practice (BAP) certification in China with trout and turbot as declared species.*

At BioMar, we believe in enhancing local farming practices by contributing with our expert knowledge on sustainability and R&D-driven innovation. The transformation of European aquaculture from the conservative practices of the 1960s to today's highly technologically advanced industry, has created a wealth of knowledge and technology to transfer. This strategy is in line with the Chinese government's initiative to improve aquaculture environmental standards.

The BAP certification comes relatively shortly after the production facility's inauguration in May 2020. It is a modern plant with state-of-the-art design and equipment. The commissioning was relatively short and smooth, and now the BAP certification has been quickly achieved as of November 2020.

The product portfolio includes feeds for high-end aquaculture species, both in freshwater and seawater, as well as locally popular species like Largemouth Bass and Large Yellow Croaker.

The BAP certification, managed by Global Aquaculture Alliance, is a comprehensive, proven, and trusted international standard that covers the entire aquaculture production chain. BAP standardises and guides feed production on the basis of four pillars: Food Safety, Environmental Responsibility, Social Accountability, and Traceability.



## Circular Ingredients - Proton

*We are constantly seeking innovative raw materials that do not compete with human food production and circular nutrients that can be up-cycled.*

Aquaculture is expected to double production by 2050; however, to achieve this we need aquaculture feeds with minimal environmental impact. The REACT-FIRST project is the first step towards the commercial development of a potentially game-changing protein source, Proton.

BioMar is one of 10 collaborative partners to join the end-to-end value chain wide consortium in the REACT-FIRST project. It is led by carbon recycling biotechnology company Deep Branch, which has pioneered a process that uses microbes to convert carbon dioxide from industrial emissions and turns them into high-value proteins.

Proton is not just a new high-performing novel ingredient. This technology has the potential to capture a significant amount of industrial CO<sub>2</sub> emissions and create real value for our farmers through industrial synergy.

Using microbes to convert CO<sub>2</sub> from industrial emissions, into a single-cell protein, Deep Branch has developed a low carbon ingredient with a nutritional profile that is comparable with fishmeal. Proton can be produced year-round, reducing the impact of any seasonal fluctuations in price or yield.

BioMar is involved in the production of trial feeds and testing of this raw material, focusing on sustainability, performance, digestibility and other parameters essential for fish health and growth.

**Shiro Alga Carta paper.  
This environmentally  
friendly paper, began  
life as a way to use the  
damaging algal blooms  
of the Venice lagoon.  
Today this concept has  
been extended to other  
fragile marine areas.**

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