SUSTAINABILITY REPORT 2018

BIOMAR GROUP

INNOVATING FOR A BETTER TOMORROW

Photo: BioMar

CONTENTS

Sustainability 4.0

- A Message from the CEO

2018 was a challenging yet rewarding year. We didn't fully live up to our expectations, but I believe we have leapt forward and created a solid foundation for sustainable business at a truly global scale. We have taken steps to strengthen our competitive position, especially in Norway which saw fierce competition as we continue our strategy of sustainable growth. In 2019, I look forward to opening the second factory in China, starting up in Australia and realising our third production line in Denmark.

> We are now moving into a new phase where we can see new technologies melt together the physical, digital and biological worlds.

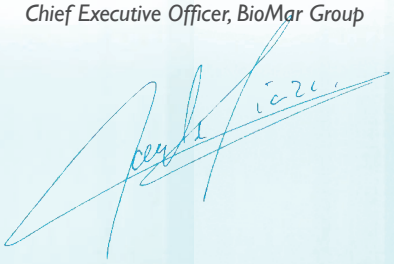
Sustainable Development is a continuous process, and we are now moving into a new phase where we can see new technologies melt together the physical, digital and biological worlds. We call it Sustainability 4.0.

Bringing forward systems, tools and sustainable solutions is a demanding but necessary job. We have just finalized the implementation of a new methodology that allows us to steer our raw material portfolio towards more sustainable solutions in the value chain, from ingredient source to fish market. It is an extensive project which during the year has been thoroughly tested and found to be very robust and steadfast. The methodology will create additional security and confidence in our value chain and not least highlighting value-added opportunities.

As the first in the industry, BioMar introduced and launched a transparency, traceability and assurance tool to support selected seafood brands. The solution has been welcomed and appreciated by all stakeholders in the value chain although the main focus has been to create trust and help the end consumer in their decision making.

BioMar wants to lead the way in the sustainable development of the industry. This is to predict and minimise risks, but also to create new opportunities for value creation. It is very important for us to have a solid knowledge base and sophisticated tools in place. Through sustainability, innovation and collaboration, we want to transform the seafood industry and shape the future!

Carlos Diaz
Chief Executive Officer, BioMar Group



FUTURE OF FISH FEED

Photo: Geir Mogen

Sustainable Raw Materials

INTRODUCING: EUROPE SOY

The animal husbandry sector in Europe relies on soy. Soy consumption in Europe has increased from 2.7 million tonnes in 1960 to 43.5 million tonnes in 2016. More than 90% of soybean imports come from Brazil and South America.

This explosive growth in the South American agricultural sector has contributed economic growth and jobs to the region, but not without creating its share of environmental and societal challenges. As a result, initiatives and standards such as the Soy moratorium, RTRS and ProTerra were established to define and stimulate responsible soy production. Certified South American soy is an excellent commodity, but volumes are limited and competition on the commodity market has led to periods of scarcity. A new and exciting European initiative promises to increase access to certified, non-genetically engineered soy focusing on sustainability and food safety.

Donau Soja is a not-for-profit organization headquartered in Vienna that develops and manages the Europe Soya and Donau Soja certification standards. The organization has over 270 members spread over 26 countries in the EU and Eastern Europe and covers all stages of the soy supply chain. The overall objective of the initiative is to support the production of GM-free sustainable soy and other legumes, to drive innovation and value creation in Europe, and to reduce European reliance on imports. A secondary objective is to build trust among European consumers through local production, and to strengthen overall sustainability of agriculture in Europe.

One of the first cooperatives to be certified under the Europe soy standard is Coop Agrogrnja in Serbia. The company cooperates with 950 small-and medium-sized soy producers from local villages in the Danube region. Over the past decade, they have built a strong trademark along with their farmer member through long-term relationships, joint value creations, and trust. The Danube region has some of Europe's leading producers of soybeans and manufactures GM-free soy from local soy species with minimal farming inputs.

Single Cell Technology

Single-cell technology appears to hold the key to solving the largest nutritional bottleneck for continued growth in the production of salmon and other fatty fish, namely adequate levels of omega-3 fatty acids EPA and DHA in fish feed. Fish oil is the traditional source of marine omega-3s in compound aquafeeds, however with the current state of global fish stocks, supply of this resource is limited and the sustainability of its use as a major ingredient is contentious.

2016 marked a paradigm shift in the availability and source of marine omega-3s. BioMar became the first commercial feed producer to include meaningful amounts of alternative omega-3s with AlgaPrime™, a feed ingredient exclusively produced by means of single-cell technology and fermentation. Since then, around 400.000 tonnes of feed containing marine omega-3s from fermented microalgae have been produced and sold by BioMar worldwide.

Bioprotein or single-cell protein (SCP) refers to another type of nutrient from single-celled microorganisms. The biomass or protein extract from pure or mixed cultures of algae, yeast, fungi or bacteria can be used as an ingredient in animal feed and replace traditional feed raw materials that are often characterized by a higher environmental footprint. SCP does not necessarily have the drawbacks of traditional protein-rich agricultural products such as freshwater consumption, land use change, wildlife destruction or competition with human food production.

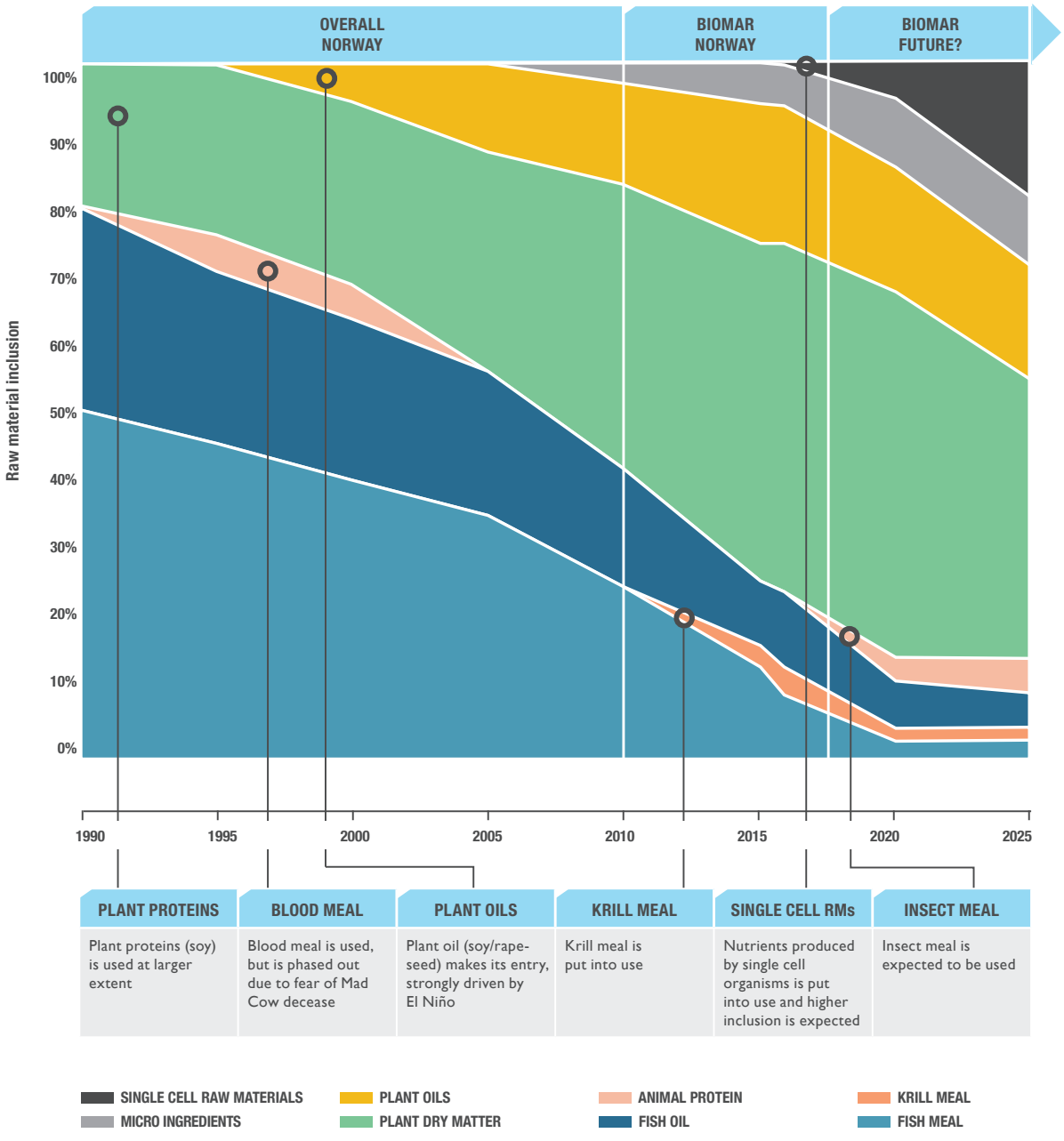
Single-cell organisms are produced through autotrophic growth. This means that the organism itself can produce organic substances from simple inorganic substances using energy that is either obtainable from light or from chemically bound energy. Thanks to a high diversity of microbial species and strains, the manufacture of nutrients using bioreactors and fermentation technology can provide more and more versatile alternatives to traditionally produced nutrients.

> BioMar became the first commercial feed producer to include meaningful amounts of alternative omega-3s with AlgaPrime™

Evolution of Salmon Feed

The salmon feed composition has changed dramatically the last thirty years. The compound feed industry started incorporating more vegetable ingredients into recipes in the 90's due to shortages in the supply of marine ingredients. An unfortunate consequence of the shift from predominantly marine to vegetable raw materials was a drop in essential nutrients like marine omega-3 fatty acids EPA and DHA, vital to fish nutrition and human health.

Together with krill and other single cell technologies, BioMar is continuing to innovate the development of raw materials that maximize fish and human health, while minimizing environmental impacts. The future of fish feed will likely include more ingredients from lower trophic levels, by-products and single cell technologies.



Transforming aquaculture

Photo: BioMar

Discover Kvarøy Salmon

Kvarøy Fiskeoppdrett is the first aquaculture producer to restore the omega-3 levels of farmed salmon responsibly through a combination of cleaning fish oil and by use of novel ingredients. Anyone can now discover the full story behind Kvarøy's premium salmon simply by scanning a QR-code – you will then enter the website and view the journey of Kvarøy salmon from feed ingredient source to fish production site along with nutrition facts and sustainability impacts.

Restoring marine omega-3s responsibly

After years of declining EPA+DHA levels in farmed Atlantic salmon due to limited supply of fish oil, Kvarøy Fiskeoppdrett is offering salmon with a fully restored omega-3 profile to the market right now. The real innovation in the Kvarøy process is that omega-3s are restored to higher levels while simultaneously minimizing the levels of environmental contaminants often associated with fatty fish and fish oils. Cleaning of fish oil and use of significant amounts of novel oils from microalgae fermentation are key elements in this success story. This we call; restoring marine omega-3s, responsibly.

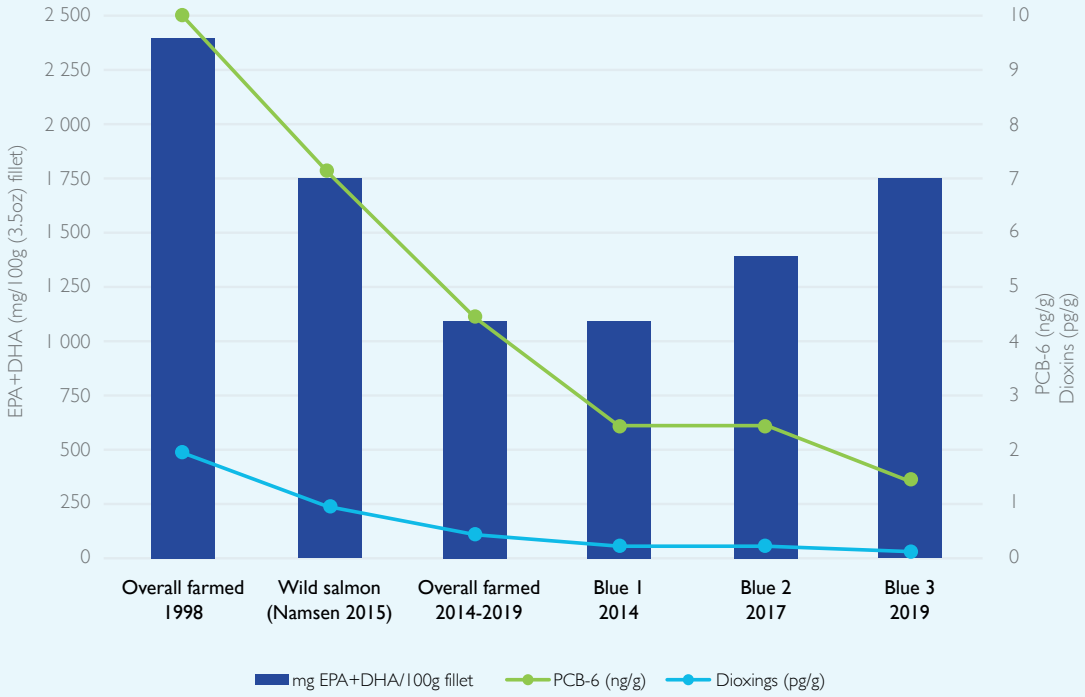


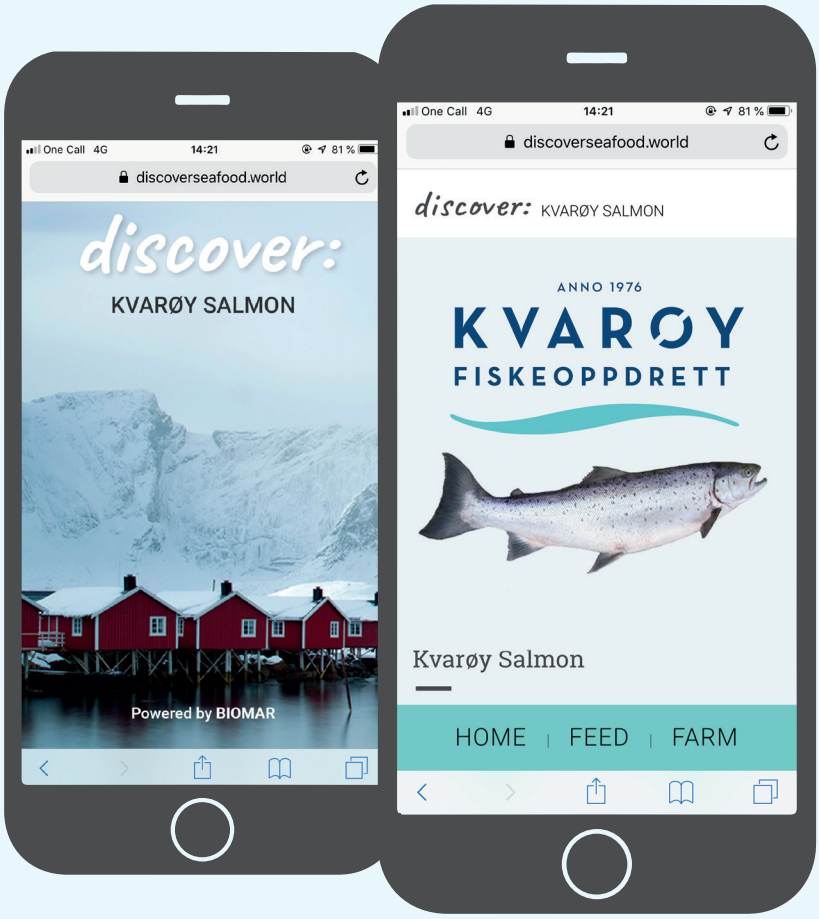
Figure 1. Kvarøy salmon produced using Blue version 3 feed enters the market this summer and will be fully restored in marine omega-3s (EPA+DHA) compared to wild/natural levels while continuing to reduce contaminant levels of PCBs and dioxins. According to the recommendations in the newly published EFSA report on environmental contaminants in food, the Kvarøy salmon distributed through Blue Circle Foods allows for higher weekly consumption of this particular healthy salmon.

> We want people to be able to eat as much salmon as they want. Why compromise when it is not needed? The salmon should taste good, be safe and contribute to good health – always.

Alf-Goran Knutsen
Kvarøy Fiskeoppdrett

Trust through transparency

Have you ever found yourself in a position of having to choose between two similar products, without the facts to make an informed decision? What if you could simply scan a QR-code on the seafood packaging using your smartphone and the facts and answers you were looking for immediately appeared? Well, now you can. BioMar just launched a transparency tool to provide facts to stakeholders and consumers about seafood branded products. Details include nutrition facts, sustainability impacts, ingredients and origin. Kvarøy salmon have been the first to test market this tool and present their journey.



Scan the QR with the camera on your phone to Discover Kvarøy Salmon


LET'S INNOVATE AQUACULTURE
BioMar
BIOFARM
Producción

BIOMAR GROUP

Photo: BioMar

Company Timeline

1962

BioMar is established in Denmark by a group of Danish fish farmers under the name of Dansk Ørredfoder A/S.

1988

Dansk Ørredfoder is taken over by Aktieselskabet Korn- og Foderstof Kompagniet (KFK), which is a subsidiary of the Norwegian group Norsk Hydro. This marks the start of international expansion for the company.

1994

Dansk Ørredfoder A/S takes over fish feed producers Aqualim S.A. in France and BioMar AS in Norway, with the three companies merging in 1994 under the name of BioMar A/S.

1995

The expansion continues with the establishment of a factory at Grangemouth in Scotland.

2000

BioMar acquires 50% of two fish feed factories in Chile.

2001

BioMar establishes production in Greece.

2002

BioMar takes over the remaining 50% of the two factories in Chile.

Activity Timeline

1962

BioMar is among the first in Europe to introduce pelletized dry feed eliminating the need for the more polluting wet feed.

1980s

BioMar pioneers the introduction of extruded fish feed significantly reducing the impact of aquaculture in the local water environment.

1988

Ecoline becomes the first environmentally declared fish feed in the world and wins the prestigious Danish Environmental Award for its contribution to improved eco-performance.

1997

BioMar establishes sustainability as one of the main goals in feed development to "minimize adverse ecological consequences of current and future aquaculture activity and expansion."

2005

Ecolife Pearl is the first feed certified for organic fish production.

2007

BioMar launches the BioSustain™ Development Programme at the AquaNor fair.

2009

BioMar launches the SMART*feed*™ concept in Norway.

BioMar launches the first fish feed in the EU with probiotics contributing to better fish health and reduced need for treatment and reduced production losses.

2011

ORBIT - revolutionary new feed line for recirculating aquaculture systems.

BioMar Norway is the first company in the aquaculture industry to achieve the DNV ProSustain certification.

2005

The Danish industrial holding company Schouw & Co. takes over 68.82% of the shares in BioMar.

2008

BioMar takes over Provimi Aqua in Chile, Spain and Denmark.

2012

BioMar establishes establishes a JV production in Costa Rica.

2013

BioMar and Lallemand sign a research, development and commercial collaboration agreement aimed at expanding the knowledge and use of probiotics in fish nutrition.

BioMar's factory in Brande becomes first feed plant in the world to comply with the new ASC standard for salmon and trout.

2012

BioMar's cargo ship MS Høydal is the world's first cargo ship powered by liquiefied natural gas (LNG).

2015

BioMar becomes the first to launch a specialized feed (Tri-X) for triploid salmon.

BioMar is among the leaders in seafood transparency with the launch of the Ocean Disclosure Project.

BioMar partners with the Antarctic Wildlife Research Fund to facilitate and promote research on the Antarctic ecosystem.

2014

BioMar launches SYMBIO, which is a unique feed improving the efficiency of cleaner fish, thereby representing a natural solution in the fight against sea lice.

2015

BioMar establishes a joint venture with the Chinese aquafeed giant Tongwei in China.

2016

BioMar establishes a JV production in Turkey.

BioMar's JV in China acquires the fish feed company Haiwei.

2016

"In the Blue" - pioneering value chain collaboration reduces environmental contaminants in salmon and lowers the FIFO ratio to way below 1:1.

BioMar first to use novel omega-3 from microalgae in feed at commersial scale.

BioMar Chile wins 1st place in the Air category for our project "A sustainable aquaculture, our legacy and commitment to Chiloé Island".

2017

BioMar announces the establishment of a feed factory in Australia.

BioMar aquires shrimp feed factory in Ecuador.

BioMar establishes a global hatchery unit in France.

2017

BioMar is receiving another eco-friendly LNG-powered feed delivery ship.

First to report a FIFO ratio below 1:1 on overall fish feed production through a year.

Silverside™, Sustainably Sourced Premium Pacific Salmon reaches market.

2018

BioMar organic feed introduced to Latin America and low impact feed introduced in China.

BioMar first to launch consumer facing from raw material to farm gate transparency tool.

2018

BioMar establishes an ATC in Ecuador.

Markets & Operations

BioMar Group has its head office in Aarhus, Denmark, and has divided its operations into three divisions: **Salmon, EMEA and Emerging Markets.**

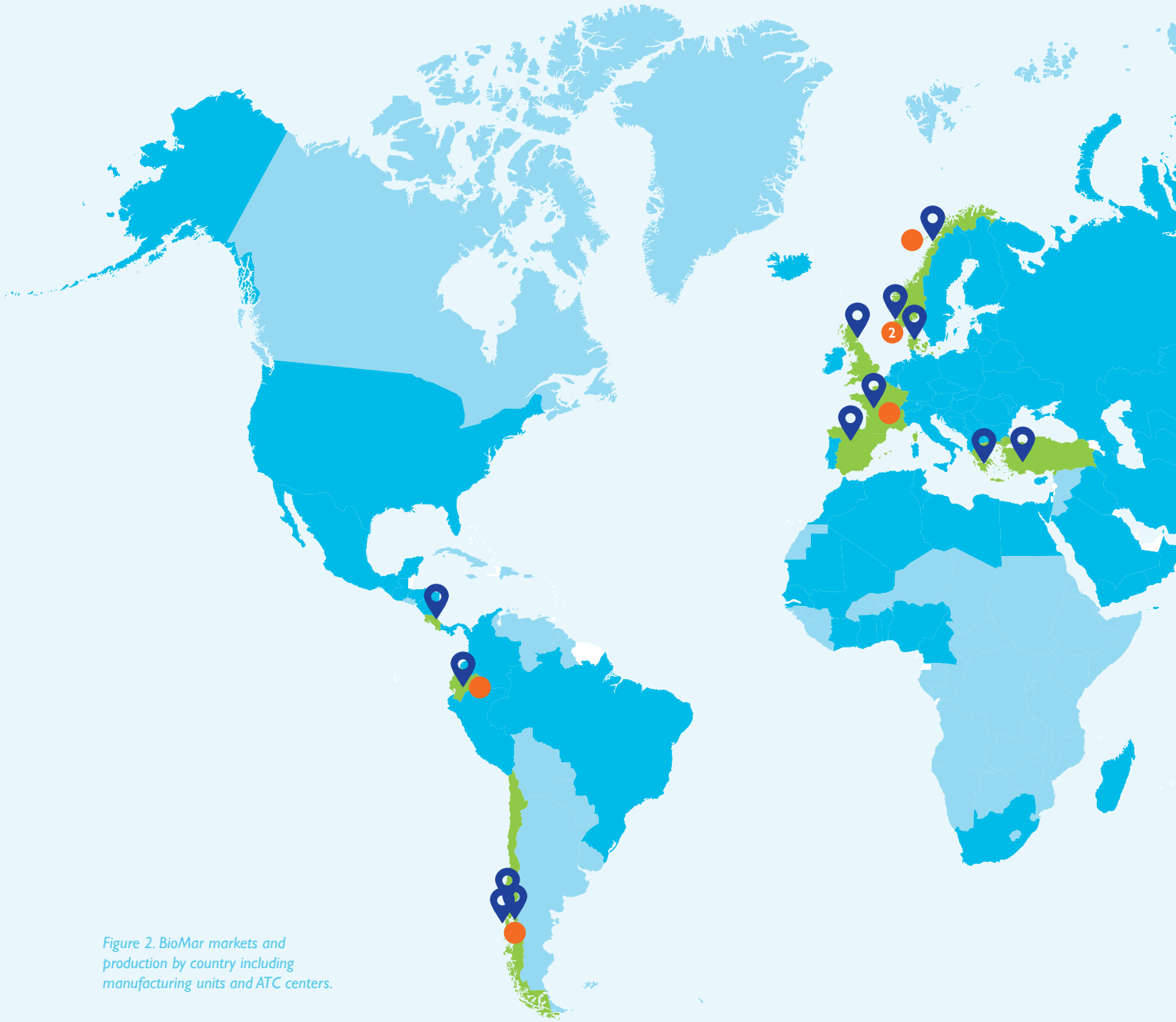
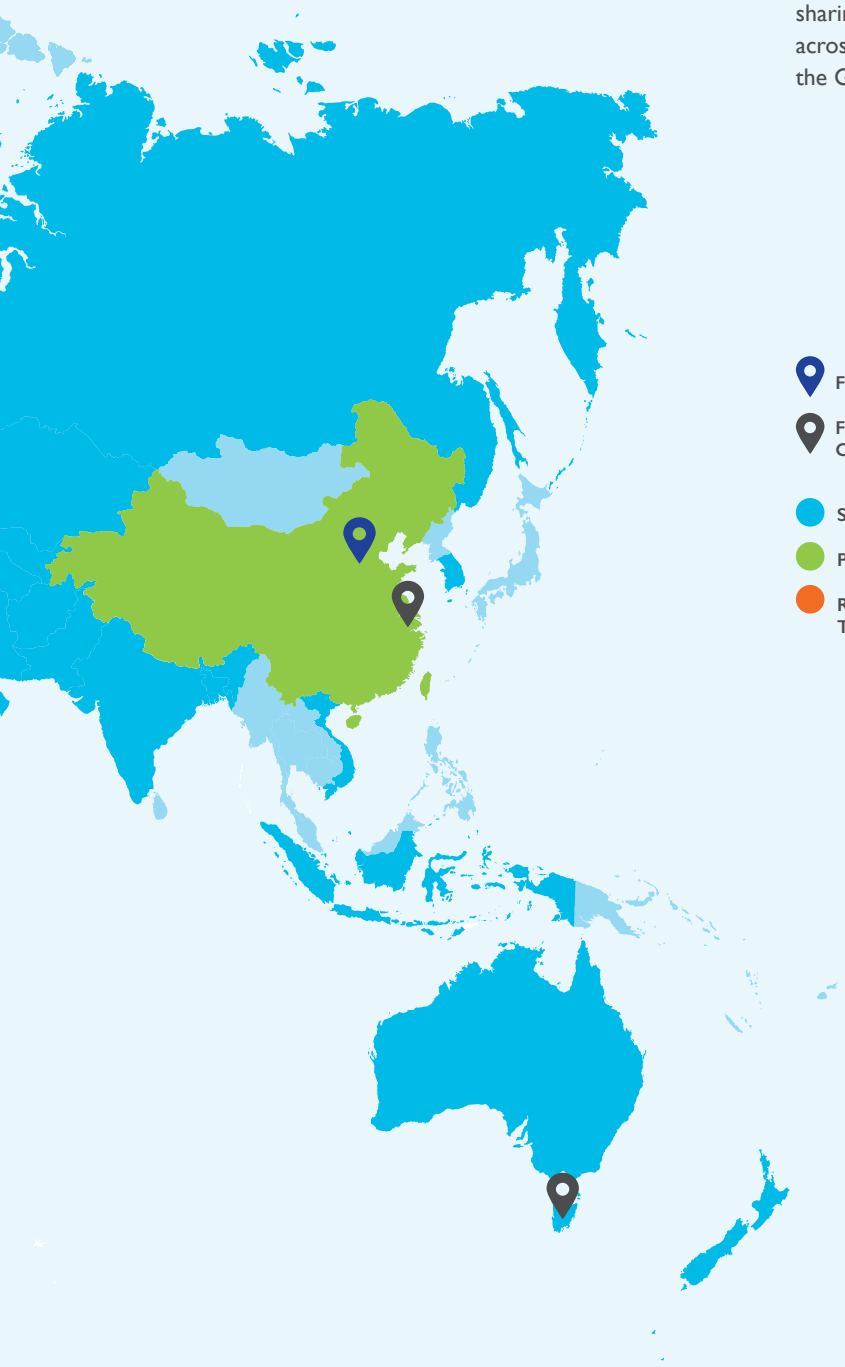


Figure 2. BioMar markets and production by country including manufacturing units and ATC centers.

Currently, the Salmon Division covers operations at the factories in Norway, Scotland and Chile with an upcoming foothold in Australia. The EMEA Division covers the EMEA region and involves all operations other than salmon in Denmark, France, Spain, Greece and Turkey. The Emerging Markets Division encompasses operations in Costa Rica, China and Ecuador, and focuses on new territories and business development activities. The business operations in Turkey and China, both driven through joint ventures with local partners, are not consolidated.

Our main business areas are feed for salmon and trout in Norway, the UK and Chile, feed for trout, sea bass, sea bream meagre and eel in Continental Europe, and feed for shrimp, cobia and tilapia in South and Central America. With the recent acquisition of Alimentsa in Ecuador, BioMar highpoints shrimp as an important growth segment. In China, our main business is feed for Japanese seabass and Snakehead.

Worldwide, the BioMar Group supplies feed to around 60 countries and to more than 45 different fish species. BioMar is one of the leading suppliers of high-performance fish feed to the aquaculture industry worldwide and is aimed at addressing the various markets using the most appropriate business model. This approach will encourage knowledge sharing, promote best practice and capitalise on synergies across geographical markets and is explained more in detail in the Governance chapter in this report.



FACTORY

FACTORY UNDER CONSTRUCTION

SALE

PRODUCTION & SALE

R&D CENTRE OR FEED TRIAL UNIT (ATC)

Top species where BioMar supplied the most feed in 2018

ATLANTIC SALMON
Salmo salar

63 %

RAINBOW TROUT S.W
Oncorhynchus mykiss

RAINBOW TROUT F.W
Oncorhynchus mykiss

EUROPEAN SEA BASS
Dicentrarchus labrax

GILTHEAD SEA BREAM
Sparus aurata

SHRIMP
Penaeus vanname

COHO
Oncorhynchus kisutch

TILAPIA
Oreochromis niloticus

SIBERIAN STURGEON
Acipenser baeri

EUROPEAN EEL
Anguilla anguilla

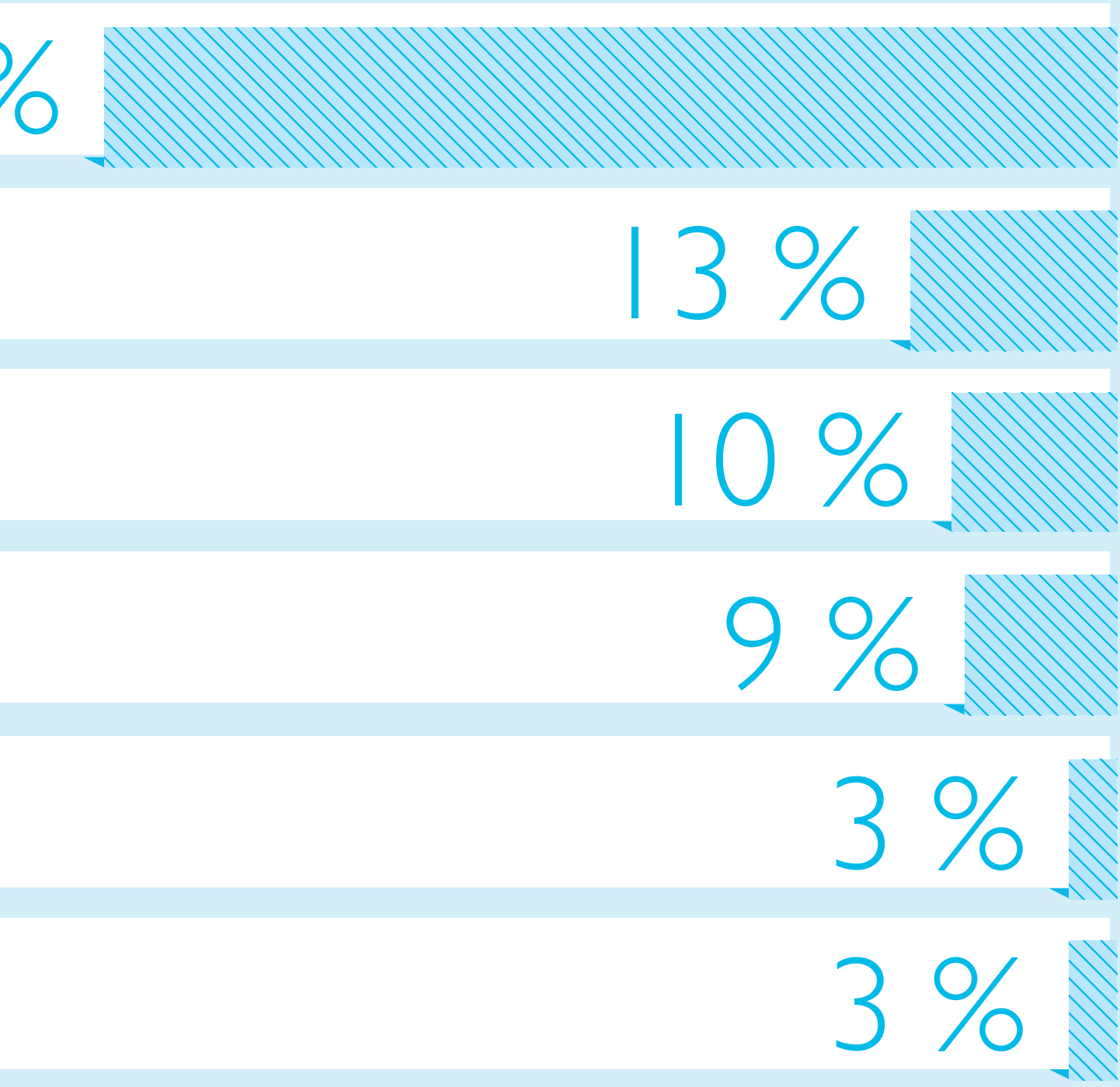
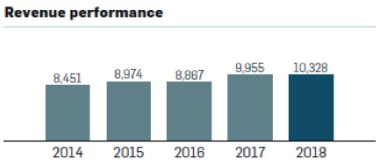


Figure 3.Top ten species where BioMar supplied the most feed.Worldwide, BioMar supplies feed to more than 45 different species.

Outlook & Financial Statements

Challenging year ended on a strong note, but Norwegian market remains extremely competitive. Good momentum in capacity expansion projects in Australia and Denmark, and further expansion in Ecuador. Focus in 2019 on protecting earnings.



Financial performance

BioMar lifted revenue by slightly more than expected in Q4 2018 to DKK 2,822 million from DKK 2,637 million in Q4 2017, reporting good earnings.

Full-year 2018 revenue was DKK 10,328 million, a 4% increase from DKK 9,955 million in 2017. The higher-than-expected revenue was based on a 5% increase in volumes sold relative to 2017. Developments in foreign exchange rates had a negative overall impact of approximately DKK 225 million on revenue, mainly due to lower USD, GBP and NOK rates relative to DKK.

BioMar	Q4 18	Q4 17	2018	2017
Volume ('000 of tonnes)	331	324	1,210	1,156
Revenue (DKKm)	2,822	2,637	10,328	9,955
- of which salmon north	1,339	1,456	4,892	5,420
- of which salmon south	672	489	2,315	1,957
- other divisions	811	692	3,121	2,578

As expected, the Salmon division reported a minor year-on-year volume decline in 2018. The setback was driven by the more intensive competition in Norway, whereas volume sales in Chile and Scotland improved.

BioMar reported a substantial decline in both terms of revenue and volumes sold in the Norwegian market relative to 2017. The revenue decline was mainly due to the fact that BioMar did not win feed sales contracts in Norway for the second half of 2018 in the volume otherwise anticipated. On the other hand, revenue and volumes sold in Chile grew by a substantial margin relative to 2017. The improvements in that market were to a large extent driven by the favourable growth conditions enjoyed by the fish farming industry, but also by an attractive product offering allowing BioMar to expand business relations with existing customers while also attracting new customers.

The EMEA division reported revenue and volume sales in line with 2017. The year was one of unusually favourable weather conditions, including a warm summer that did not favour fish farming conditions, but mild weather at the end of the year extended the growth season, partially offsetting the unsuccessful growing season of the summer months. The Turkish joint venture increased sales year on year, despite the challenging macroeconomic conditions. The Turkish operations are not recognised in consolidated revenue.

The Emerging Markets division reported a substantial year-on-year increase in volumes sold. The improvement was mainly due to the acquisition of the business in Ecuador, which in 2017 was only consolidated from September, but it also generated substantial organic growth in 2018. The Chinese joint venture reported more business activity than in 2017, albeit less than expected due to the delayed start-up of the new factory in Wuxi just outside of Shanghai.

Like the Turkish activities, the Chinese operations are not consolidated. The two non-consolidated feed businesses reported combined 2018 revenue (100% basis) of DKK 781 million and EBITDA of DKK 71 million, compared to revenue of DKK 699 million and EBITDA of DKK 52 million in 2017. The non-consolidated feed businesses also include the fish farming company Salmones Austral and the Letsea and ATC Patagonia research centres. The non-consolidated companies are recognised in the 2018 consolidated financial statements at a share of profit of DKK 75 million after tax, compared to DKK 38 million in 2017. The profit improvement was attributable in particular to the Salmones Austral fish farming business in Chile (23% owned), which reported revenue (100% basis) of DKK 1,632 million and EBITDA of DKK 442 million for 2018.

BioMar reported EBITDA of DKK 713 million for 2018, which was in line with 2017 because the business acquisition in Ecuador and the positive developments in a number of markets during the year were offset by the earnings decline in Norway caused by more competitive market conditions. The reported EBITDA was also at the top end of the most recent guidance range of DKK 690-715 million.

Working capital increased from DKK 672 million at 31 December 2017, to DKK 846 million at 31 December 2018, due in part to a shift in the market and timing differences for volumes sold during the year. ROIC excluding goodwill remained high, at 22.6% at 31 December 2018, but still lower than the rate of 30.1% reported at 31 December 2017 due to the higher average invested capital in 2018.

Business review

BioMar's acquisition of Ecuadorian shrimp feed manufacturer Alimentsa in autumn 2017 has progressed as planned, and the company continues to generate revenue and earnings fully in line with expectations. Alimentsa has been successfully integrated with the rest of the BioMar businesses, although there are still positive synergies and additional potential to be achieved.

While retaining its focus on tilapia and shrimp feed for the Central American market, the business in Costa Rica is one of the BioMar units that are readily expected to benefit from the synergy potential with Alimentsa.

In response to BioMar Ecuador's positive performance combined with the market growth anticipated for the coming years, BioMar has installed a new production line in existing buildings, which will add about 25,000 tonnes of feed to the annual output capacity. The new line is scheduled to begin operations by the end of the first quarter of 2019. In addition to the new production line for pelleted feed, BioMar has commenced construction of an additional line for extruded feed, which will increase capacity in Ecuador by a further 40,000 tonnes of feed. The new production line represents an investment of approximately DKK 50 million and is expected to become operational in the first quarter of 2020.

In October 2018, BioMar opened the Aquaculture Technology Center (ATC) in Ecuador, a research center dedicated to shrimp farming. The ATC will be a value creator in BioMar's production of shrimp feed and for the company's customers. In addition, the ATC will complement BioMar's product development capabilities in other geographical markets and become a part of BioMar's ATC network that currently consists of facilities in Chile, Norway and Denmark.

In China, BioMar is currently building a new fish feed factory in Wuxi near Shanghai in a joint venture with Chinese partner Tongwei. The new facility will have an annual capacity of 50,000 tonnes of fish feed. Construction of the plant has been delayed several times, in part due to challenges arising in the cooperation with a local contractor, and the facility is expected to be commissioned during third quarter of 2019.

In March 2017, BioMar announced an almost DKK 300 million investment in a new feed factory in Tasmania, Australia. The project was previously moved back a few months due to regulatory processing, but it is now progressing to plan, and BioMar expects the new facility (annual fish feed capacity of about 110,000 tonnes) to be ready in early 2020.

BioMar has initiated a project that will lift the output capacity at Brande, Denmark, and reduce the load on the existing production facility. Demand continues to grow in the European markets, particularly for the specialty feeds BioMar manufactures at Brande. The new production line will be dedicated to specialised larval and fry diets and RAS feed (Recirculating Aquaculture Systems), and when it becomes operational the Brande facility will be BioMar's largest feed facility for non-salmon markets. The new line represents a total investment of about DKK 90 million and the expanded facility is expected to be commissioned by the end of 2019.

In Chile, BioMar has operated three factories since 2007, two of which have been 100% owned, while the third factory has been operated in a 50/50 joint venture with the Chilean fish farming company AquaChile. The joint venture factory has produced feed for AquaChile and a number of other customers, but in March 2019, BioMar entered into an agreement for the acquisition of the whole ownership of the factory, which means that BioMar get an additional production capacity available in the order of 60,000 tons annually. BioMar sees a solid growth potential in the Chilean aquaculture industry, and the acquisition allows for a continuation of the positive development in Chile. The acquisition was approved by Chilean authorities in June 2019.

Outlook

Demand for farmed fish and shrimp is generally developing well in many markets, and there are no immediate indications of any changes to this trend. The overall salmon market is expected to grow at a moderate pace in 2019 driven by generally good biological conditions, while the shrimp farming business in Ecuador is expected to see more pronounced growth.

BioMar expects market conditions in Norway will be challenging in 2019, as moderate growth in demand combined with high supply makes for an extremely competitive market. BioMar has considerable output capacity in Norway, but due to the challenging market conditions, the company must give priority to long-term sustainable earnings over short-term volume sales.

BioMar will defend its market share and expand its position by developing and implementing new products and continuing to strongly focus on optimising margins, enhancing efficiency and on customer communication. Prices of farmed fish, including salmon prices, are expected to remain at a level that will provide solid earnings for fish farmers, which will reduce BioMar's risk of bad debts.

Obviously, Britain's departure from the EU will affect BioMar's operations in Scotland, especially in terms of procuring raw materials from areas outside the UK. While this not expected to have a material effect, BioMar is still trying to mitigate possible negative effects by building inventories and identifying potential alternative suppliers.

Against this background, BioMar expects to generate full-year 2019 revenue of about DKK 10.3 billion, but as always changes in raw materials prices and foreign exchange rates may impact revenue. The full-year EBIT will also depend on how foreign exchange rates develop, but based on the current outlook, BioMar expects to generate EBITDA in the range of DKK 820-890 million, of which about DKK 130 million relate to IFRS16.

Associates and joint ventures, which are recognized at a share of profit after tax, are expected to contribute profit of approximately DKK 80 million in 2019 compared with DKK 75 million in 2018.

> ”
>
> Prices of farmed fish, including salmon prices, are expected to remain at a level that will provide solid earnings for fish farmers.

	2018	2017
Volume (thousands tonnes)	1,210	1,156
Revenue	10,328	9,955
- of which relates to the North Sea	4,892	5,420
- of which relates to the Americas	2,315	1,957
- of which relates to Continental Europe	3,121	2,578

INCOME STATEMENT

Revenue	10,328	9,955
Gross profit	1,275	1,223
EBITDA	713	712
Depreciation and impairment	184	153
OPERATING PROFIT (EBIT)	529	559
Profit after tax from associates and joint ventures	75	38
Financial items, (net)	-35	14
PROFIT BEFORE TAX	569	611
Tax for the year	-163	-146
PROFIT FOR THE YEAR	407	465

CASH FLOWS

Cash flows from operating activities	366	296
Cash flows from investing activities	-217	-1,027
Cash flows from financing activities	-108	657

BALANCE SHEET

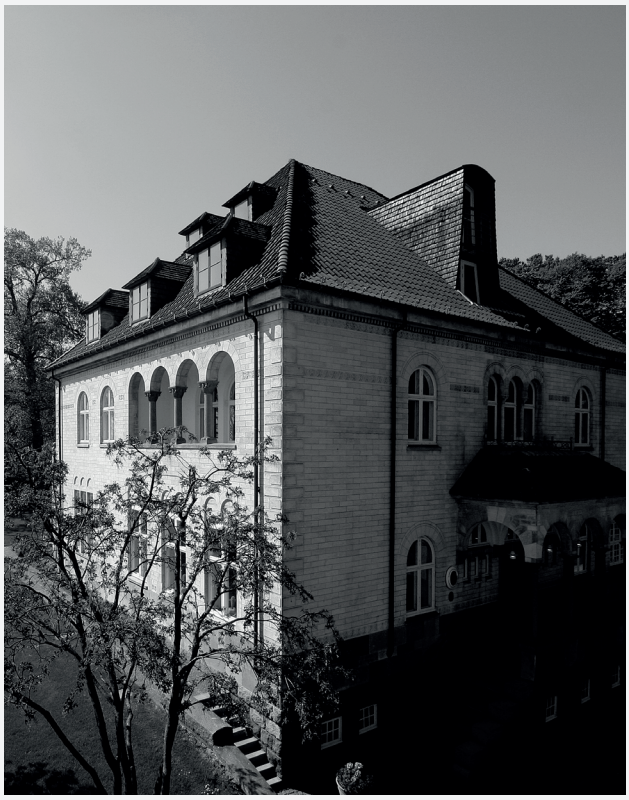
Intangible assets	1,294	1,273
Property, plant and equipment	1,300	1,207
Other non-current assets	568	497
Cash and cash equivalents	284	241
Other current assets	3,695	3,081
TOTAL ASSETS	7,141	6,299

Equity	2,581	2,490
Interest-bearing debt	1,415	1,201
Other creditors	3,146	2,608
TOTAL LIABILITIES AND EQUITY	7,141	6,299

FINANCIAL KEY FIGURES

EBITDA margin	6.9%	7.2%
EBIT margin	5.1%	5.6%
ROIC ex goodwill	22.6%	30.1%
ROIC incl. goodwill	14.8%	19.5%
Working capital	846	672
Net interest-bearing debt	880	726

Table 1. BioMar financial figures for 2018 and 2017 in DKK millions.



Schouw & Co.

Innovating for the future and continuous growth of BioMar is supported by investors that believe in the company's vision.

Ownership

The BioMar Group is fully owned by Schouw & Co., a Danish industrial conglomerate listed on the Nasdaq Copenhagen Stock Exchange.

Schouw & Co. acquired 68% of BioMar in 2005 and achieved full ownership in 2008 by merging the parent company, BioMar, into Schouw & Co. The acquisition of BioMar has made Schouw & Co. both larger and stronger. Schouw & Co. generates most of its current revenue and earnings from BioMar, while BioMar's performance has been a strong contribution to Schouw & Co. A/S.

Schouw & Co. is an industrial conglomerate. Through its subsidiaries, the company manufactures fish feed for aquaculture, non-woven textiles for personal care and industrial applications, spare parts and accessories for the agricultural sector, hydraulic components, electronics and advanced mechanics, and components to the automotive industry.

DKK MILLION	2018	2017	2016	2015	2014
REVENUE AND INCOME					
Revenue	18,253	17,032	14,369	12,566	11,784
Operating profit before depreciation (EBITDA)	1,579	1,568	1,472	1,214	1,070
Depreciation and impairment losses	532	475	434	383	363
Operating profit (EBIT)	1,047	1,093	1,038	831	708
Profit/loss after tax in associates and joint ventures	70	42	566	86	28
Gains on investments	9	0	0	0	0
Net financials	-40	-30	-27	-46	-35
Profit before tax	1,086	1,105	1,578	871	701
Profit for the year	796	875	1,339	645	428
CASH FLOWS					
Cash flow from operating activities	837	763	1,598	1,171	628
Cash flow from investing activities	-1,360	-2,763	-395	-569	-355
Of which investment in property, plant and equipment	-685	-809	-828	-354	-233
Cash flows from financing activities	623	818	-925	-324	-563
Cash flows for the year	100	-1,181	277	278	-290
INVESTED CAPITAL AND FINANCING					
Invested capital (ex. goodwill)	8,831	7,337	5,416	4,464	4,528
Total assets	16,940	14,389	12,273	10,516	9,882
Working capital	3,441	2,505	1,727	1,598	1,775
Net interest-bearing debt (NIBD)	2,425	1,275	-1,028	-511	44
Share of equity attributable to shareholders of Schouw & Co.	8,652	8,317	7,797	6,656	6,071
Non-controlling interests	7	15	18	21	3
Total equity	8,659	8,332	7,814	6,677	6,074
FINANCIAL DATA					
EBITDA margin (%)	8.7	9.2	10.2	9.7	9.1
EBIT margin (%)	5.7	6.4	7.2	6.6	6.0
EBT margin (%)	6.0	6.5	11.0	6.9	6.0
Return on equity (%)	9.4	10.9	18.6	10.2	7.2
Equity ratio (%)	51.1	57.9	63.7	63.5	61.5
ROIC excluding goodwill (%)	14.5	17.6	20.2	18.3	16.9
ROIC including goodwill (%)	11.3	13.8	16.6	15.1	14.0
NIBD/EBITDA ratio	1.5	0.8	-0.7	-0.4	0.0
Average no. of employees	7.174	6.087	4.108	2.382	2.139
PER SHARE DATA					
Earnings per share (of DKK 10)	33.43	36.85	56.56	27.48	18.08
Diluted earnings per share (of DKK 10)	33.35	36.63	56.41	27.38	18.02
Dividends per share (of DKK 10)	13.00	13.00	12.00	10.00	8.00
Net asset value per share (of DKK 10)	365.17	346.99	328.38	282.10	258.44
Share price, end of year (per share DKK 10)	485.60	581.50	526.00	387.00	290.00
Price/Net asset value	1.33	1.68	1.60	1.37	1.12
Market capitalisation, end of year	11,505	13,939	12,489	9,131	6,812

Table 2. Schouw & Co. A/S financial figures and ratios: a five-year overview.

Structure & Operational Model

BioMar is headed by a dedicated team of experienced executives with a shared common goal to see a sustainable aquaculture industry driven by innovation and founded in solid partnerships.

BIOMAR BOARD

JENS BJERG SØRENSEN

JØRN ANKJÆR | **ASBJØRN REINKIND** | **NATALIE KNIGHT** | **ANDERS WILHJELM**

BIOMAR EXECUTIVE COMMITTEE

CARLOS DIAZ
CEO

CLAUS ESKILDSEN
CFO

PADDY CAMPBELL
VP Salmon

OLE CHRISTENSEN
VP EMEA

HENRIK AARESTRUP
VP Emerging Markets

Table 3. Overview of governance bodies by owner and within the BioMar organisation.

BioMar have a very lean agile and locally responsive organisation. However, to secure future growth, we want to further enhance our global innovation capability, including some of our corporate support functions, and our capacity to enter new markets and feed more species. Our organisational set-up considers the fact that, even though we are aiming for the same strategic position across the globe, we need to address the local market logic and our position in the marketplace in different ways. Therefore, our business model is focused around the three divisions: Salmon, EMEA and Emerging Markets.

BIOMAR GROUP

	SALMON DIVISION	EMEA	EMERGING MARKETS
R&D	GLOBAL		
SALES & OPERATIONS	LOCAL	LOCAL	LOCAL
TECHNOLOGY	GLOBAL & LOCAL	GLOBAL & LOCAL	GLOBAL & LOCAL
BUSINESS DEVELOPMENT	GLOBAL		
MARKETING	DIVISIONAL	DIVISIONAL	DIVISIONAL
SUSTAINABILITY	GLOBAL		
SOURCING	GLOBAL & LOCAL	GLOBAL & LOCAL	GLOBAL & LOCAL
HR & COMMUNICATION	GLOBAL & LOCAL	GLOBAL & LOCAL	GLOBAL & LOCAL
M&A	GLOBAL		
FINANCE	GLOBAL & LOCAL	GLOBAL & LOCAL	GLOBAL & LOCAL
IT	GLOBAL & LOCAL	GLOBAL & DIVISIONAL	GLOBAL & LOCAL

Table 4. Operational model supporting our stratig aspirations.

Purpose & Strategy

"Shaping the Future", our corporate strategy towards 2020, builds on the promise of our purpose "the BioMar Why", which is founded on our four pillars and guiding principles: Innovation, Collaboration, Sustainability and Performance.

BioMar continuously strives to improve its ability to innovate. Indeed, we will ensure that growth happens in a robust and efficient way. We are determined to embrace long-term commitments to working with stakeholders, as well as building lasting partnerships across the value chain and broader community. BioMar is devoted to developing sustainable aquaculture and ready to lead by example through new and more sustainable ways of doing business. BioMar will offer superior growth performance, as well as continue to produce healthy and safe seafood to feed the world.

> We are innovators desicated to an efficient and sustainable global aquaculture

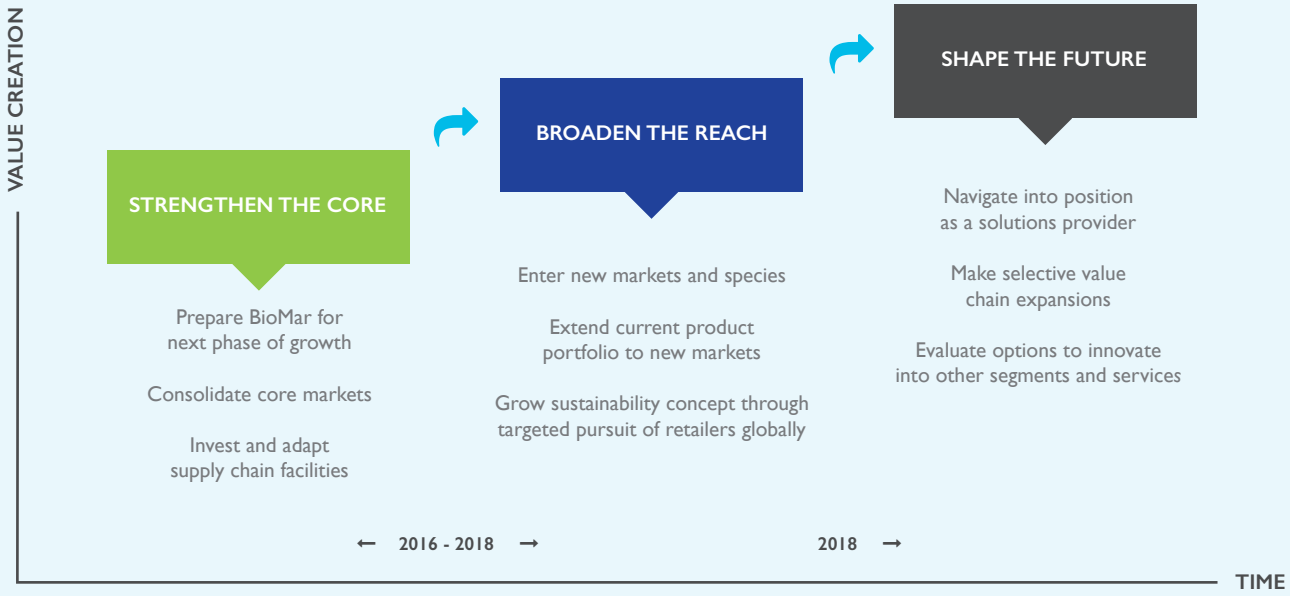


Figure 4. Stages in our strategy "Shaping the Future" towards 2020.

Shaping the Future – 2020

Based on our values and principles, we strive to establish ourselves as the industry's most agile, reliable, and forward-thinking aquaculture feed supplier. By agility, we mean being a focused feed supplier with flexible and effective production set-ups to meet customer requirements. We seek strategic partnerships and pro-activeness in the market to drive value for our customers.

Our global, functional excellence is catalysed by strong processes and high-performing talents. We ensure sustainable growth by being an important player with critical mass in all main markets, while opportunistically seeking out new species and markets. We seek inorganic growth to consolidate our industry role and aim for 50% growth in tonnage sold.

Corporate Policies

BioMar is committed to ensure high standards of corporate responsibility. Part of our role as a multinational company, which sources raw materials in the global market, is to ensure that we, along with our suppliers, meet the standards detailed in our Code of Conduct (COC) and applicable policies. BioMar acknowledges that a sustainable business must be built upon certain ethics like ensuring the fundamental rights of human beings amongst other. 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.

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

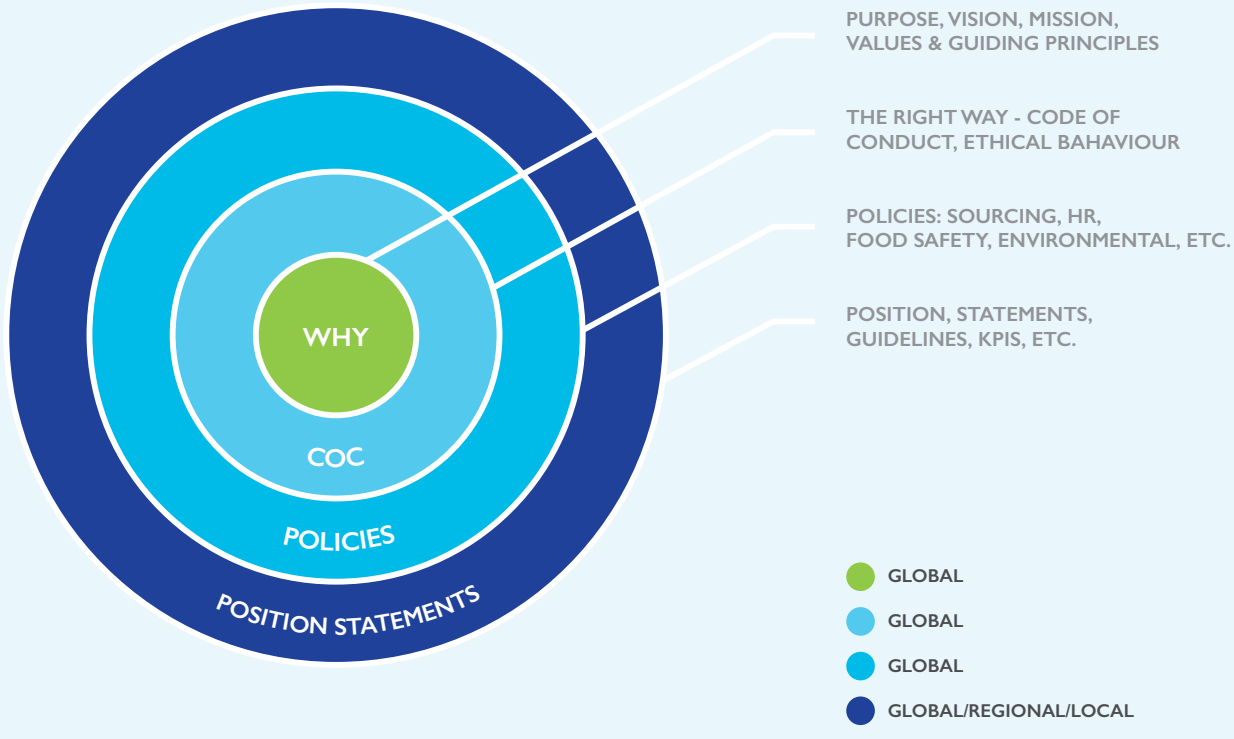


Figure 5. Illustration of corporate policies in BioMar, emanating from global core statutes, code of conducts and high impact policies to more market driven position statements.

BioMar People

In BioMar, we are never in doubt that our responsibility goes beyond applicable legislation. For many years we have been running our business striving to take on corporate responsibility. We are committed to promoting innovation, collaboration, sustainability and performance.

Business Ethics

As we are growing, we keep reinforcing our way of doing business. We promote integrity and responsibility at all levels in the organization. In 2018 we continued training in our new Code of Conduct "The Right Way", providing an extensive introduction to our ethical guidelines for all employees. The Code of Conduct stresses our commitment to international human rights, health & safety, environmental care, fair competition and anti-corruption.

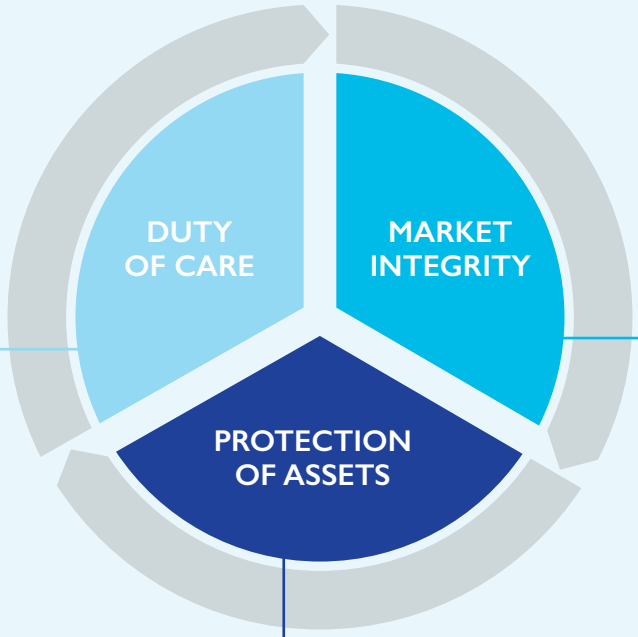
Furthermore, we launched the Schouw & Co e-learning module in business ethics as mandatory training for all managers and commercial staff. The training will be offered to new employees as they join the company.

In 2019, we will continue our focus assessing and developing our suppliers, and we will implement a new Supplier Code of Conduct underlining our commitment to human rights.

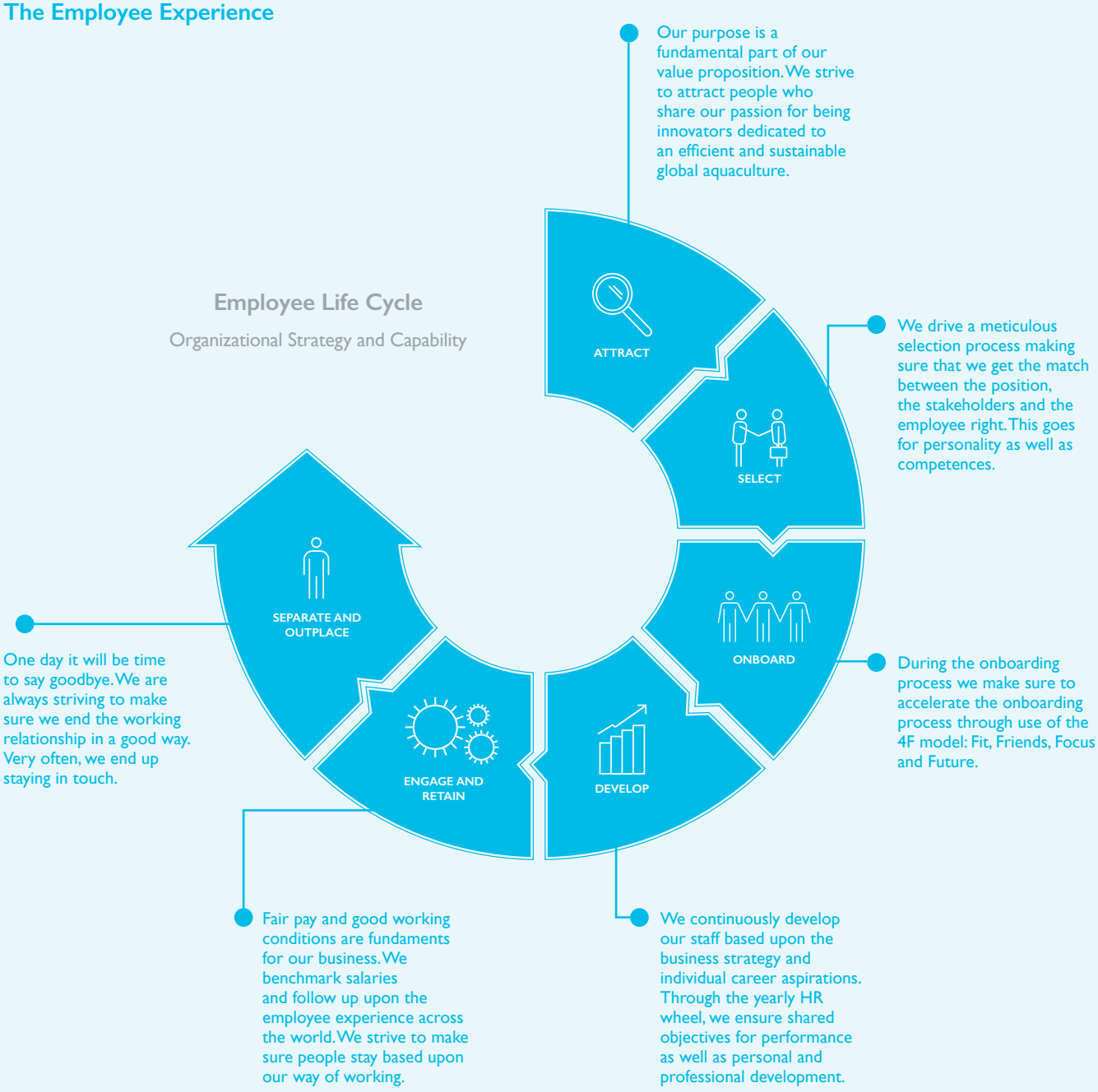
TRAINING	NOT COMPLETED	COMPLETED
BUSINESS ETHICS	7%	93%

Code of Conduct

Our Code of Conduct outline the ethical principles of how we are doing business when striving to bring our purpose alive.



The Employee Experience



Safety & Engagement

In BioMar safety always comes first and we are collaborating with our factories to minimize the risk factors inherent in our daily work. Over recent years we have experienced a too high accident rate and so have enhanced our executive focus supporting managers and employees in creating a cultural change. We have been able to lower our LTI rate from 6.4 in 2016 to 5.0 in 2018, now including China, Turkey and Ecuador. Unfortunately, at the same time the severity rate increased slightly from 0.09 in 2017 to 0.12 in 2018 due to a small number of accidents requiring medium-term sick leave (10-30 days). 6 of our 14 factories have been without any accidents in 2018. We will continue our safety focus during 2019.

Employee engagement is an important factor living our purpose. In the spring of 2018 we measured our Employee Engagement at all operational sites, except our JV in China. We used an external provider with a strong portfolio of international companies to be able to benchmark our results.

Our overall level of engagement is in the top category of international companies measuring employee engagement. Our engagement level increased from 71 in 2016 to 77 in 2018 with a loyalty level of 86 compared to 82 in 2016. All managers get support to work with the results and maintain/ improve our practices.

HEALTH & SAFETY	TARGET 2020	2016	2017	2018
LTI RATE	< 2.0	9.1	6.4	5.0
DAYS LOST/ EMPLOYEE	NO TARGET	0.10	0.09	0.12

Engagement Comparisons

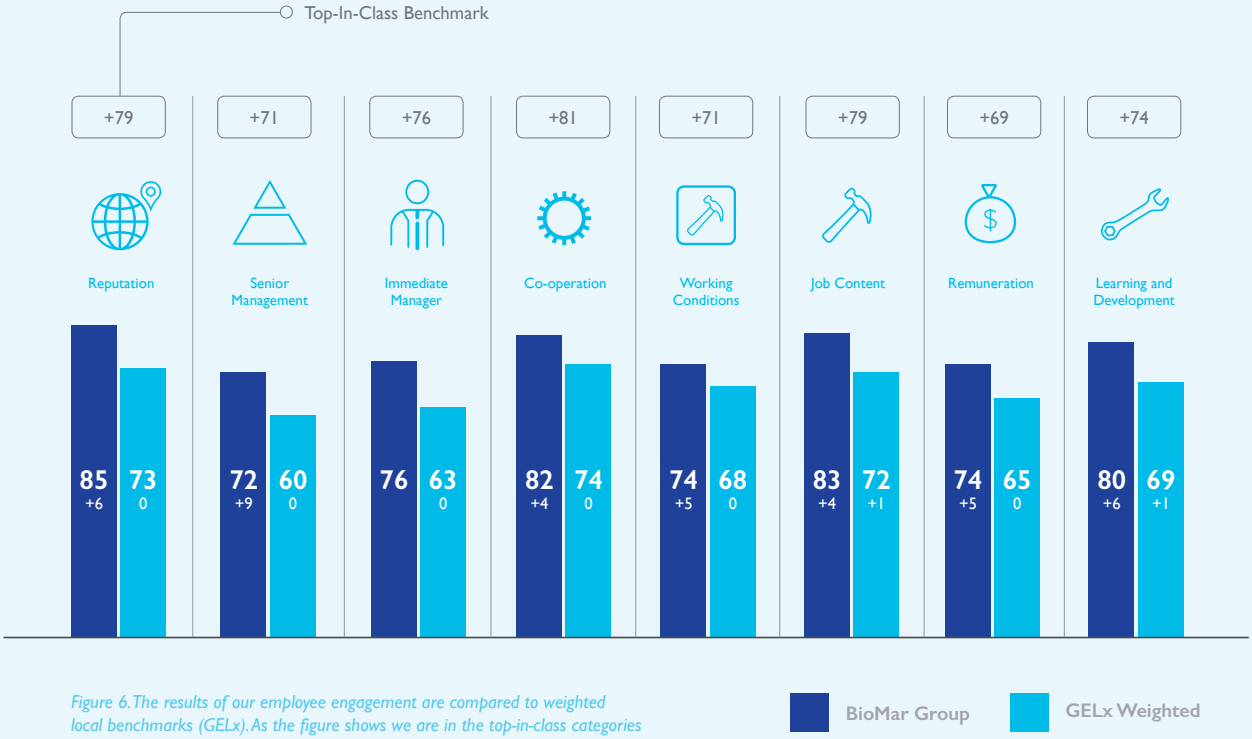


Figure 6. The results of our employee engagement are compared to weighted local benchmarks (GELx). As the figure shows we are in the top-in-class categories of international companies measuring employee engagement.

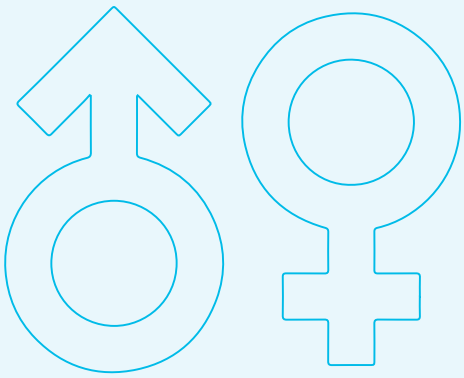
We have during 2018 been engaged in fortifying our IT-security, creating awareness around risks and safety precautions. All employees using a PC as a part of their daily work have completed e-learning modules themed around IT security and daily behaviour protecting BioMar against viruses and phishing. Furthermore, we have intensified our work identifying and harmonizing global IT processes, creating solid structures and a less stressful work environment for all employees using and supporting IT in their daily work.

Gender Diversity

When looking at gender diversity in management, we have maintained our good results from 2017, where we had a leap forward advancing from 14% to 19% women in managerial roles (consolidated companies). We have at the same time increased the number of women in the organization in general, building a stronger pipeline for gender diversity.

In 2018, a female board member joined the board with a very strong skill set, increasing our diversity profile. During the year, we made changes in several of our local management teams. The preferred candidates were all men. Looking at executive management (business unit management teams and corporate management ex. Executive Committee), there are 19% female leaders. In the Executive Committee no women are present. To increase our growth of female talents below the level of the management teams, we chose to dedicate 40% of our seats at the Schouw Talent Program 2018 to female talent. The talent program has been designed to accelerate the growth of employees with a high potential to develop towards more strategic roles. The program is designed and facilitated by HR in BioMar Group in collaboration with INSEAD and open to all Schouw & Co companies.

> ”
>
> To increase our growth of female talents below the level of the management teams, we chose to dedicate 40% of our seats at the Schouw Talent Program 2018 to female talent.



DIVERSITY	2016		2017		2018	
GENDER	Female	Male	Female	Male	Female	Male
TOP MANAGEMENT	5%	95%	5%	95%	5%	95%
MANAGEMENT TOTAL	14%	86%	19%	81%	19%	81%
TOTAL	19%	81%	20%	80%	20%	80%

Executive Committee, Global Heads and Managing Directors

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 involve 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 in our case studies along with other sustainability practices.

When it comes to sustainability and CSR, 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 communities around our facilities.

For employees and to some extent suppliers, are important also on an additional level since our business operations depend on them. Those who might become clients or employees in the future, such as students, are also important to us. We also value other diverse perspectives within our business, such as groups who can highlight new opportunities or areas that need attention, for example, the media and NGOs.

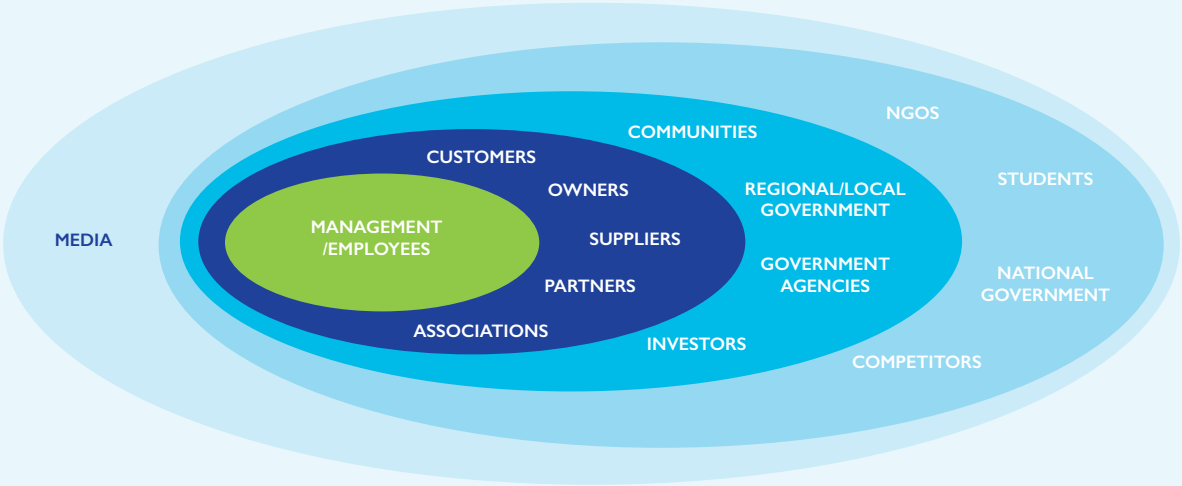


Figure 7. Stakeholder onion illustrating layers of stakeholders and interest groups of variable relevance and importance to BioMar.

Materiality

Sustainability is a very broad topic, which makes it important in understanding the key priorities when aligning time, resources and investment. We have conducted an extensive materiality assessment and developed a materiality matrix based on the results. With the help of DNV GL, as an independent third party, to ensure objective input, we have revised our materiality matrix this year.

Our intention is to review and adjust the matrix every other year to meet external and business context changes, as well as ensure the matrix functions as a guide in managing our sustainability agenda. We concentrate on the highest priority items in our Global Reporting Initiative (GRI) reports. Our corporate sustainability strategy focuses on taking responsibility, minimising negative social and environmental impacts and enhancing our positive reputation. Impact and focus areas are embedded as key performance indicators (KPIs) in our core operations and we strive to achieve measurable results for each of them.

Over the years, some business units have developed comprehensive metrics and goals to ensure sustainable development. Some of them have been adopted as KPIs for the entire BioMar Group, whereas others reflect a more local character or are, in other ways, difficult to address globally.

> Our corporate sustainability strategy focuses on taking responsibility, minimising negative social and environmental impacts and enhancing our positive reputation.

IMPORTANCE TO EXTERNAL STAKEHOLDERS	LOW	MEDIUM	HIGH
HIGH		Climate change: Emissions Emergency preparedness Supply chain: Environmental practices Ethics & Anti-corruption Hazardous materials	Supply chain: High risk commodities Working conditions & HSE R&D & Innovation Public health Local pollution
MEDIUM HIGH	Climate change adaption	Supply chain: Anti-corruption Labour relations & standards & Human rights Accidental spills Training & education Waste from packaging Lobbying Impact on local economy	Stakeholder engagement Diversity & inclusion
LOW	Security issues Charity & sponsorships	Energy source & use Fresh water use	

IMPORTANCE TO BIOMAR

Figure 8. BioMar Group Materiality Matrix 2016/2017 conducted by DNV GL.

SUSTAINABILITY IN BIOMAR

Photo: BioMar

BioMar Sustainability Commitment

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:

CHALLENGING GOALS FOR IMPROVEMENTS

ADVANCED TECHNOLOGY

CERTIFIED MANAGEMENT SYSTEMS

CUTTING-EDGE KNOWLEDGE

> We commit to public transparency of our activities through annual disclosures in our BioMar Group Sustainability Report. In addition, an essential part of our sustainability programme is to minimize sustainability risks and support value chain sustainability ventures by means of BioSustain™.

Photo: BioMar

Putting Our House in Order

BioMar is environmentally conscious and continuously focuses on reducing the environmental impact in fish 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.

HEALTH AND WELFARE

NUTRITION AND FOOD SAFETY

GREENHOUSE GASES

WATER

Figure 9. 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.

Furthermore, BioMar has developed and improved its product ranges over the years to reduce the environmental impact of fish farming. This happens through focusing on sustainability throughout our internal value chain (Figure 9). It all starts with responsible sourcing. The next step is the development and 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.

WASTE

SUSTAINABLE RAW MATERIALS

BETTER LIVING CONDITIONS

EMPLOYEES

BioSustain™

Portfolio Steering and Impact Assessment

BioMar launched its sustainability concept and improvement programme BioSustain™ in 2007 and since then sustainability has become an integral part of BioMar's corporate strategy. For a decade BioMar has had a strategic partnership with BASF on corporate sustainability and in creating and driving more sustainable solutions. A tangible example of how BioMar carries out our company purpose are the Sustainable Solution Steering® method and the environmental impact assessment tool Eco-Efficiency Manager. Both these methodologies have been developed by BASF to analyse, assess and steer product portfolios based on defined sustainability criteria.

BioMar applies Sustainable Solution Steering to our business

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

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

The tool considers the entire value chain and markets including industry and region-specific views. The approach reflects economic, ecological and social aspects of the products and solutions in their respective application. The methodology was adapted for the aquaculture feed industry by consulting with the company, *Thinkstep*. Thinkstep have been supporting companies in all industries to customize 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.

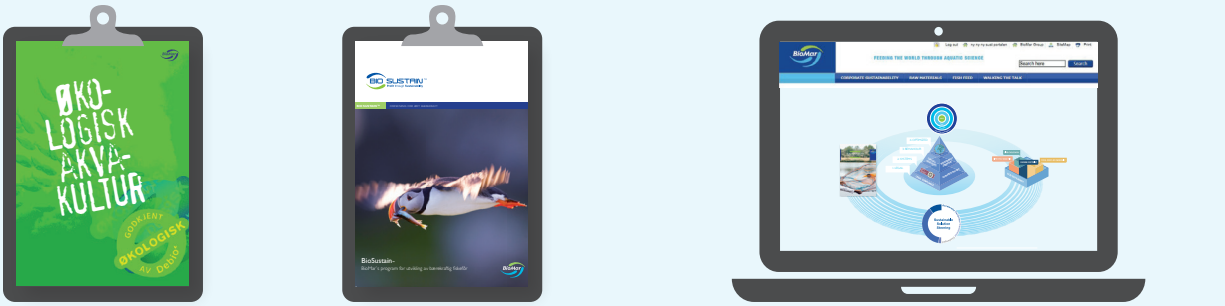
Environmental Impact Assessment

An Environmental Impact Assessment (EIA) is a systematic process of identifying consequences of a current or proposed action. It shows transparency, practicability, flexibility, cost-effectiveness, credibility and accountability. Based on life cycle analysis (LCA) and eco-efficiency methodology, BioMar has jointly developed with BASF a dynamic tool for the aquaculture value chain to measure, optimise and document environmental impacts.

BioMar uses the Eco-Efficiency Manager tool, both strategically and in terms of accountability, to document impacts to improve our business, as well as provide a service to our customers to help them improve their business.

The Eco-Efficiency system is the most sophisticated and dynamic LCA tool available and has become a sought-after support tool for customers seeking EIA documentation for both certification and added value purposes.

> BioMar uses the Eco-efficiency Manager tool, both strategically and in terms of accountability, to document impacts to improve our business, as well as provide a service to our customers to help them improve their business.



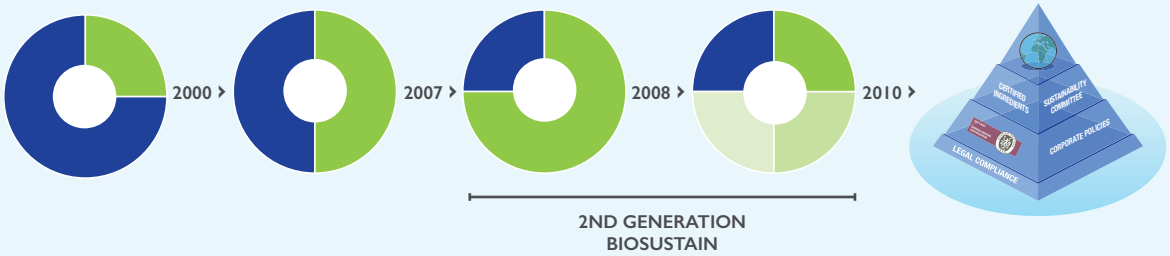


Figure 10. Developing history of BioSustain™: the pie chart illustrates the average feed recipe and the shift from a high dependency of marine raw materials (blue) to alternative ingredients and a smarter use of limited raw materials due to sustainability optimization.

Addressing the UN SDGs

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

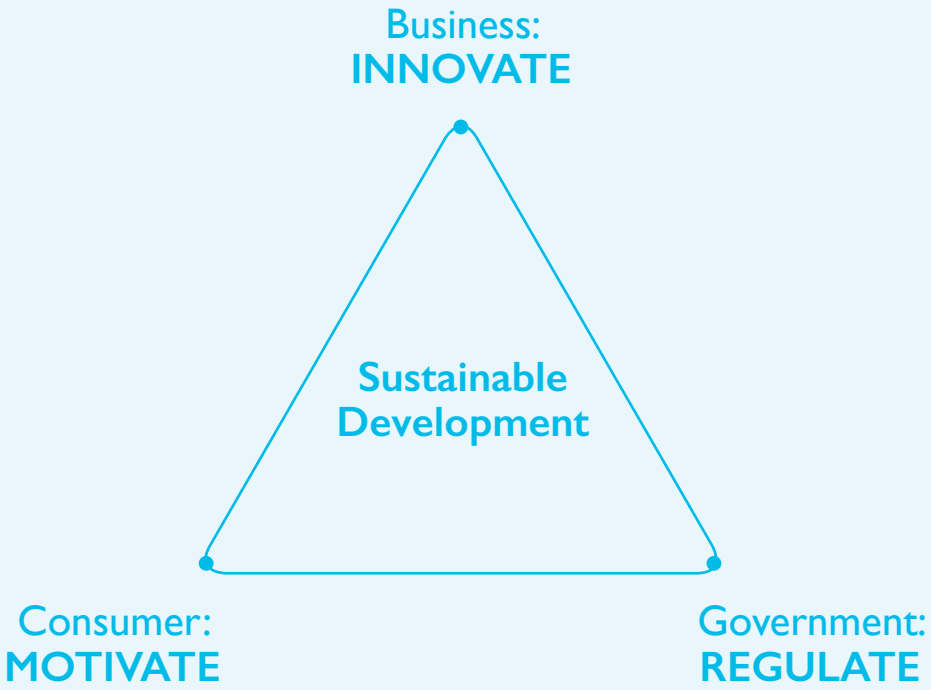
For companies with less mature sustainability strategies the SDGs offers a great opportunity to use a meaningful framework to move forwards. For the more mature organisations it is about working out how the current strategy and activity addresses and overlaps with the SDGs, then working out whether the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

Whilst the SDGs themselves are somewhat vague the SDGs provide the best indication of a future that society could aim for. There is a clear role for business in supporting the goals for sustainable development, contributing alongside other actors to address the challenges that the goals seek to address.

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 lay, but also where any activities would have the greatest impact.

Together with DNV GL BioMar has mapped our current strategy and activities against the SDGs and aligned our already established measurement criteria and focus 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 organisations, we are continuously building this knowledge into our strategy and innovating products and services in response to a changing world – putting sustainability at the core of BioMar's business strategy.



FOCUS AREAS IN OUR BUSINESS STRATEGY	HIGH IMPACT AREAS ACCORDING TO MATERIALITY ASSESSMENT	UN SDG ADDRESSED
The quality, performance and integrity of our products and services	Supply chain: high risk commodities	2 ZERO HUNGER
Research, development and innovation	Working conditions & HSE	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Talent attraction, development and wellbeing of employees	R&D & Innovation	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Reducing energy and carbon emissions per ton of end product, reducing emissions to environment	Public health	14 LIFE BELOW WATER
Contributing to local communities	Local pollution	15 LIFE ON LAND
Driving sustainability practices into our supply and value chain		
Responsible sourcing		

Table 5. The left column highlights focus areas in our business strategy, while the middle column shows high impact areas according to the materiality assessment. The right column shows the UN Sustainability Development Goals we believe BioMar can deliver upon.

DELIVERING ON AMBITIONS

Photo: BioMar

Our Sustainability KPIs

	HEALTH AND QUALITY		ENVIRONMENT	
	HEALTH AND WELFARE	NUTRITION AND FOOD SAFETY	GREENHOUSE GASSES	WATER
OVERALL KPI	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*
SPECIFIC KPI	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*
2014	N/A	100%	58 KG/TONNE 95%	N/A
2015	N/A	100%	57 KG/TONNE 93%	USE: 0.6 M^3 RED.: N/A
2016	WILL BE REVISED	100%	61 KG/TONNE 100%	USE: 0.55 M^3 -8%
2017	RESTRUCTURE	100%	54 KG/TONNE 89%	USE: 0.55 M^3 -8%
2018	SmartCare™ is a redesign of SMARTfeed and is a more targeted global health strategy	100%	75 KG/TONNE 138%	USE: 0.51 M^3 -15%

BENCHMARK/BASELINE: 2014 | 2016** (reset due to company expansion)*
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.

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.

SOCIETY




	WASTE	SUSTAINABLE RAW MATERIALS					BETTER LIVING CONDITIONS	EMPLOYEES	
OVERALL KPI	We intend to assess waste generated from our world-wide manufacturing, both from primary waste from production and secondary waste from packaging and maintenance, and create a program for reduction, and ultimately reuse, recycle and recover (3R)	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 sourcing	We aim to ensure that all employees get regular feedback on their performance and have a plan to develop essential capabilities	
SPECIFIC KPI	100% 3R by 2020	FISH MEAL 80% certified by 2020	FISH OIL 80% certified by 2020	KRILL 100% MSC by 2015	SOY 100% certified by 2020	PALM OIL 100% certified by 2020	Framework ready by 2017	90% of all positions are described by responsibilities and competence requirements, by 2017[1]	90% of all employees have taken part in a Performance and Development Dialogue within last 12 months, by 2017[1]
2014	N/A	93%	76%	100%	71%	90%	ONGOING	N/A	14%
2015	99.6%	92%	86%	100%	80%	84%	ONGOING	21%	31%
2016	99.6%	81%	70%	100%	78%	63%	WILL BE REVISED	69%	59%
2017	>99%	89%	81%	100%	82%	100%	IN PROGRESS	77%	76%
2018	>99%	94%	83%	100%	92%	100%	Aligned with policies and integrated into our BioMar Code of Conduct	70%	71%

Health and Quality

Health and Welfare

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

SmartCare is the redesign of SMARTfeed and is a more targeted health strategy. We have simplified the offering to address the three main health challenge areas to Resist, Control and Assist fish and crustaceans during difficult periods.

SmartCare provides the opportunity to grow more robust fish and crustaceans by altering the functional ingredients to support better health and welfare. The strategic use of SmartCare can aid in the minimal use and possible avoidance of medicated feeds.

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 fish farming. 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 program 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 with regards to food safety. As such, 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 2018, we found no major health and safety impacts, nor identified any non-compliance with regulations and voluntary codes.

MANUFACTURING UNIT	ISO 9001	ISO 14001	ISO 22000	GLOBAL G.A.P.	OTHER	PRODUCTION VOLUME		APPROVED SUPPLIERS
MYRE (NO)	✔	✔	✔	✔		238,221	17%	40 – 50
KARMØY (NO)	✔	✔	✔	✔		188,122	14%	
GRANGEMOUTH (UK)	✔	✔	✔	✔	ISO 50001	112,478	8%	30 – 40
CASTRO (CH)	✔	✔	✔	✔	BAP, ISO 17025, OHSAS 18001	61,670	5%	50 – 60
PARGUA (CH)	✔	✔	✔	✔		162,091	12%	
PARGUA JV (CH)	✔	✔	✔	✔		102,010	7%	
BRANDE (DK)	✔		✔	✔		109,115	8%	40 – 50
NERSAC (FR)			✔	✔		38,965	3%	30 – 40
DUENAS (ES)	✔	✔	✔	✔		45,614	3%	20 – 30
VOLOS (GR)	✔	✔	✔	✔		52,750	4%	30 – 40
SOKE (TU)				✔		28,717	2%	N/A
CAÑAS - JV (CR)	✔			✔		41,564	3%	10 – 20
HAIWEI - JV (CN)						69,283	5%	N/A
ALIMENTSA (EC)	✔			✔	BAP	111,454	8%	N/A
BIOMAR GROUP	11/14	8/14	10/14	13/14		1,362,054	100%	150 – 200

Table 6. The table reveals certification schemes in BioMar manufacturing in 2018, along with unit production volume and the number of approved suppliers to manufacturing units.

Photo: BioMar

Environment

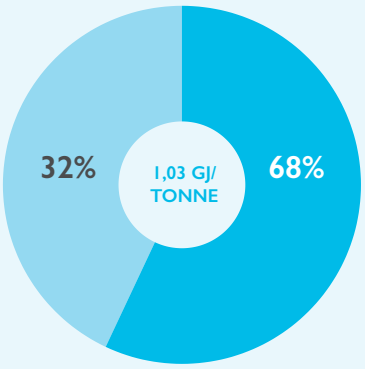
Energy management and greenhouse gases

The average temperature of the Earth's atmosphere and oceans indicates global warming. We see 11 out of the past 12 years are among the warmest since 1850. During the past 50 years, the warming have taken place twice as fast as during the preceding 50. The average global temperature increased by 0.74 °C during the course of the 20th century. This, in and of itself, does not seem spectacular, but the effects are significant both on land and in the oceans.

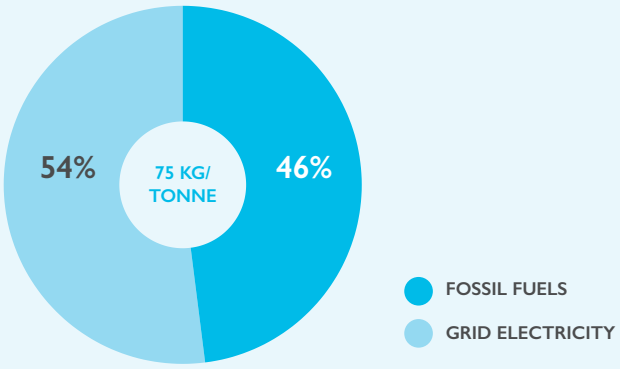
The carbon footprint (CF) represents the direct environmental impact of our actions in the form of carbon dioxide emissions. We all have a moral and social responsibility to reduce our own emissions of carbon. A reduction of carbon emissions is one of the most important concepts involved in mitigating global warming and climate changes.

> We all have a moral and social responsibility to reduce our own emissions of carbon

DISTRIBUTION ENERGY USE



DISTRIBUTION GHG EMISSIONS



ENERGY USE & GHG EMISSIONS	FOSSIL FUEL (GJ)	ELECTRICITY (GJ)	TOTAL ENERGY (GJ)	TOTAL EMISSIONS (Kg CO_2)
Salmon division	607,994	275,295	883,289	65,090,038
EMEA division	244,009	93,437	337,446	18,945,450
Emerging Markets	103,659	78,824	214,177	17,749,781
BioMar Group incl. JVs	955,662	447,556	1,403,218	101,785,269

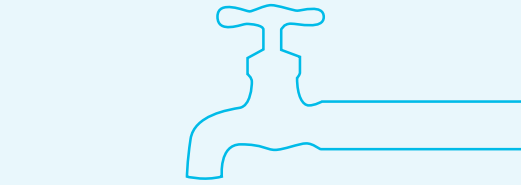
Table 7. The table discloses direct energy use in gigajoule (GJ) and direct greenhouse gas (GHG) emissions in kg CO_2 equivalents from fossil fuels and grid electricity by BioMar manufacturing divisions in 2018.

Water

Globally, drinking water is a very scarce but a vital resource. Even though this is not a problem in most areas where BioMar operates, we do affect the consumption of this scarce resource by purchasing raw materials that are responsible for considerable water consumption in the countries of origin. These countries are often in areas where water shortage is critical. We address this by sourcing raw materials with respect to international guidelines and certification schemes, in which responsible use of water has a high priority.

Water is used in almost all food manufacturing processes. The "water footprint" of a product is the quantity of water used in their production. A water footprint is made up of three types of water consumption known as blue, green and grey water footprints. The green water footprint is the volume of rainwater stored in soil that evaporates through crop growth. The blue water footprint is the volume of freshwater taken from surface layers (lakes, rivers, reservoirs), while groundwater (aquifers) is used and not returned to the system it was withdrawn from. The largest share of global blue water footprint occurs in crop fields as a result of evaporation of irrigation water. The grey-water footprint is the volume of water polluted as a result of production processes (industrial and agricultural) 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.

(http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/).



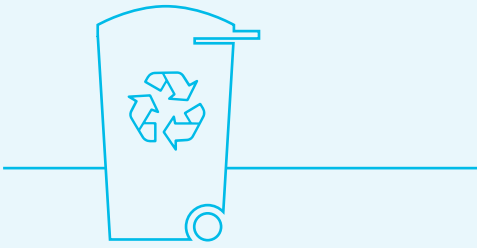
WATER USE PER TONNE FEED:

0.51 M^3

Waste Management

As the world hurtles toward its urban future, the amount of municipal solid waste (MSW), one of the most important by-products of an urban lifestyle, is growing even faster than the rate of urbanization. In 2002, there were 2.9 billion urban residents who generated about 0.64 kg of MSW per person per day (0.68 billion tonnes per year). A decade later, these amounts increased to about three billion residents generating 1.2 kg per person per day (1.3 billion tonnes per year). By 2025, this will likely increase to 4.3 billion urban residents generating about 1.42 kg per person per day of MSW aggregating to 2.2 billion tonnes per year (World Bank, 2012).

As a part of life cycle thinking, BioMar supports the waste hierarchy view. The five stages of the hierarchy, ranking from the most favoured prevention via the three Rs (reuse, recycle and recover) to the disposal of waste, are implemented as part of the quality management system at all BioMar manufacturing plants, as well as covered in the ISO 14001 standard.



REUSED OR RECYCLED PACKAGING WASTE:

>99%

Sustainable 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. Purchases of marine raw materials, soybean 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, IFFO RS, MSC or equivalent. BioMar keeps track of the percentage of marine raw material deliveries originating from FAO COC approved fisheries, for example, IFFO RS, MSC or equivalent.

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

BioMar buys exclusively deforestation-free soybean and palm products. We also endeavour, as far as possible, to utilize by-product raw materials in our feed production Compliance with Sourcing Policy BioMar Group Sourcing is a centralised organization 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
CREDIBILITY: IFFO RS Zero deforestation RTRS RSPO	KPI	 On track (Soy) (Palm oil)	 Board member NEW YORK declaration Supporting member Supporting member
SAAT APPROVAL	100%	100%	Details on page XX
RM SPECIFICATION	100%	100%	SAAT
R&D TESTED	100%	100%	Nutritional and technical
COMPLIANCE TO POLICY	**100%**	**100%**	

Table 8. BioMar sourcing policy's minimum criteria to which suppliers and raw materials must comply and perform.

RAW MATERIALS (RMs)	SHARE OF CERTIFIED MATERIALS	CERTIFICATION SCHEMES
FISH MEAL	94%	MSC, IFFO, RS or equivalent
FISH OIL	83%	MSC, IFFO, RS or equivalent
KRILL MEAL	100%	MSC
SOY	92%	RTRS, ProTerra or equivalent
PALM OIL	100%	RSPO, Green Palm or equivalent

Table 9. The table discloses certification in percentage terms of hot topic raw materials used in BioMar feed in 2018.

FISHMEAL

SPECIES	VOLUME (MT)	SHARE
Blue whiting	47 910	27%
Sardine	46 269	27%
Trimmings	16 556	9%
Anchoveta	15 365	9%
Sardine	14 788	8%
Sand-eel	7 843	4%
Sprat	5 940	3%
Capelin	5 843	3%
Herring	5 327	3%
Menhaden	2 295	1%
Anchovy	1 911	1%
Sardinella	1 853	1%
Norway Pout	1 091	1%
Other	1 412	1%
TOTAL	**174 401**	**100%**
IFFO RS	142 780	82%
MSC	101 326	58%
Certified/ASC compliant	163 430	94%

FISH OIL

SPECIES	VOLUME (MT)	SHARE
Trimmings	39 557	42%
Anchoveta	10 257	11%
Sardine	9 271	10%
Menhaden	6 646	7%
Blue whiting	5 543	6%
Herring	4 609	5%
Sand-eel	3 345	4%
Sprat	2 748	3%
Capelin	2 612	3%
Sprat	1 715	2%
Cod	1 170	1%
Anchovy	985	1%
Norway pout	959	1%
Mackerel	858	1%
Sardinella	512	1%
Other	2 422	3%
TOTAL	**93 207**	**100%**
IFFO RS	67 529	72%
MSC	30 307	33%
Certified/ASC compliant	77 009	83%

Table 10. Fish species in fishmeal and fish oil used by BioMar in 2018 are disclosed in the below tables in descending order, according to volume (metric tonnes). Share of MSC, IFFO RS- and ASC-compliant material is also shown.

RAW MATERIAL DISTRIBUTION

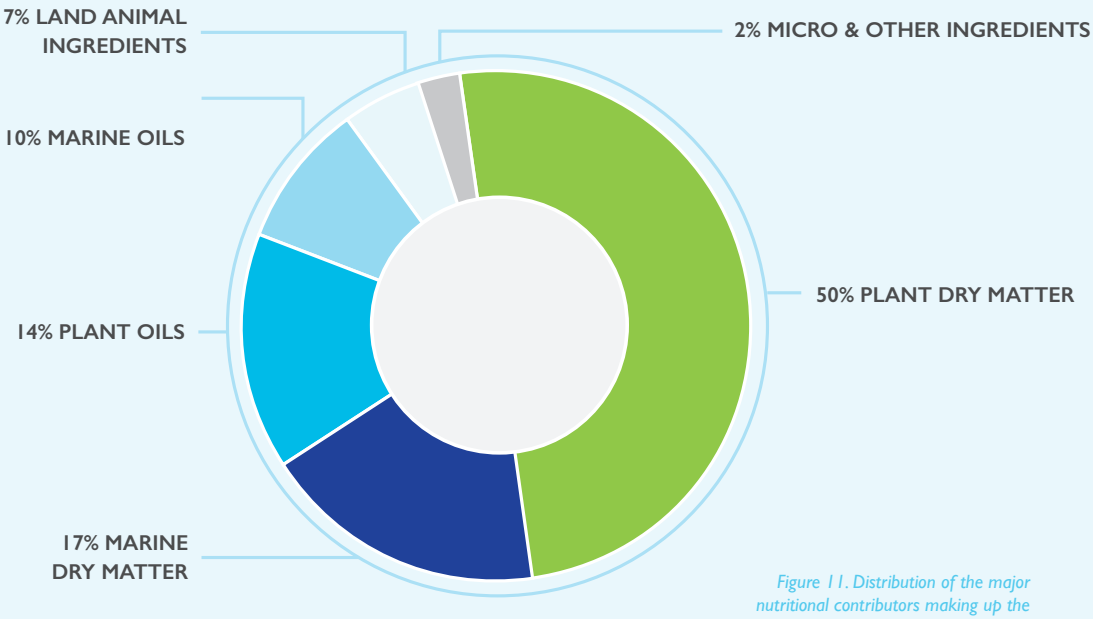


Figure 11. Distribution of the major nutritional contributors making up the BioMar Group's total feed recipe of 2018.

Global Warming Potential

The global warming potential caused by climate gases, commonly referred to as the Carbon Footprint (CF), is expressed as kg CO2 equivalents per tonne of produced feed. The methodology is recently updated and includes peat and land use change according to the EU PEF, an EU harmonised methodology for measuring the environmental impact of products.

The CF of the average BioMar Group feed, based on the overall raw material and energy use in 2018, was 1,898 kilos of CO2 per tonne of feed produced (Figure 12).

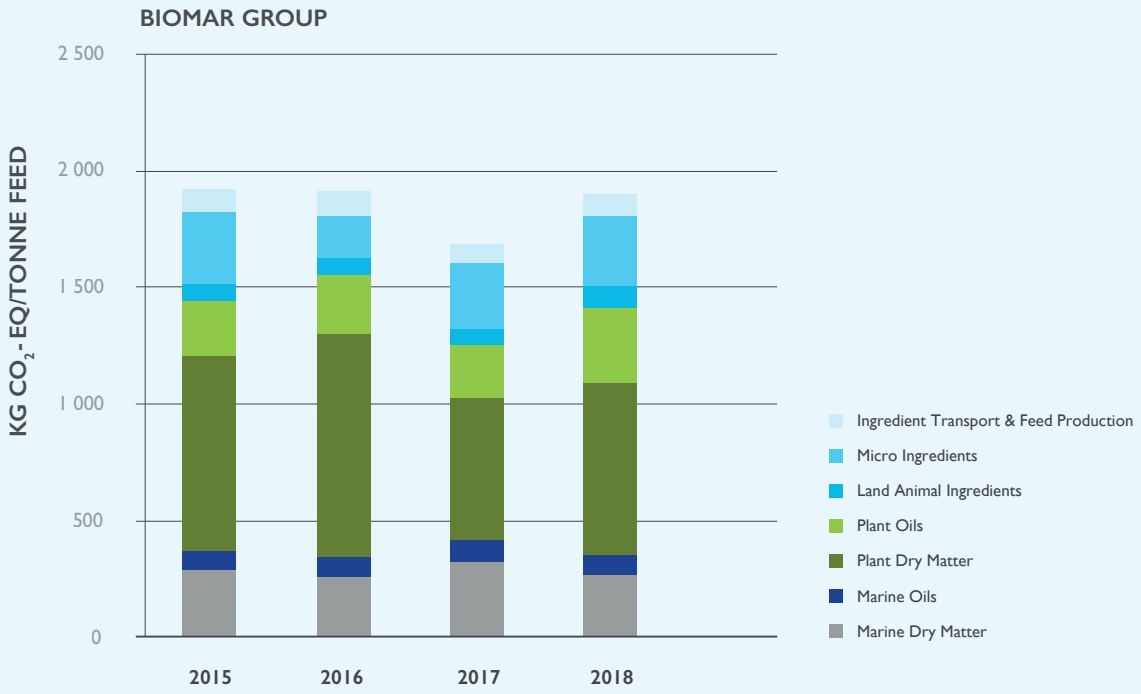


Figure 12. The overall annual Carbon Footprint per tonne of feed produced in BioMar Group from 2015 to 2018.

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. According to the ASC standards, this measure is referred to as the forage fish dependency ratio (FFDR) and should be calculated for both FM and FO, using the inclusion levels of marine meals and marine oils in the feed recipe, multiplied by the feed conversion ratio and divided by their corresponding contribution factors.

BIOMAR GROUP	2015	2016	2017	2018
FFDRm (fishmeal)	0.68	0.58	0.85	0.53
FFDRo (fish oil)	1.05	0.93	1.05	0.87
FIFO	1.05	0.93	1.05	0.87

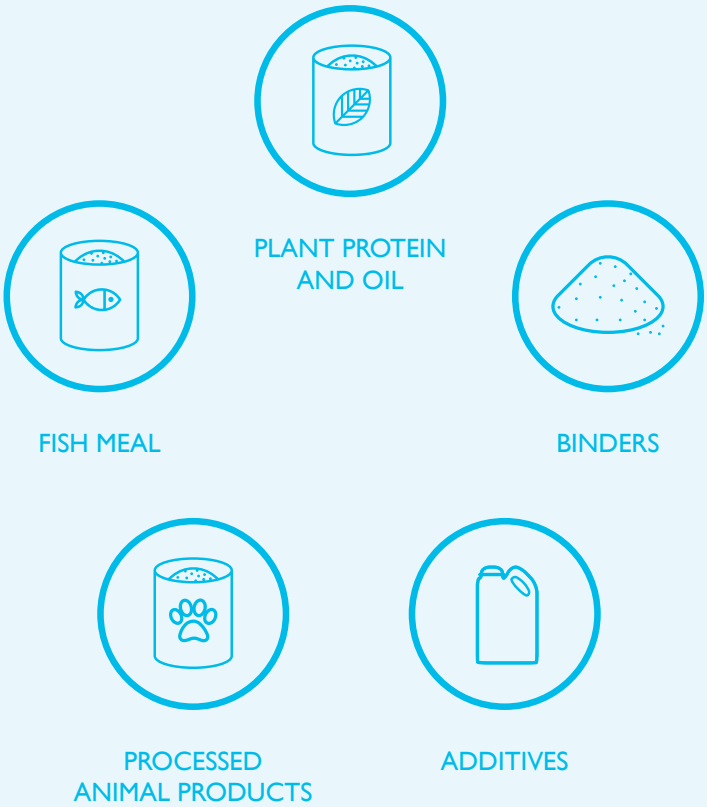
Reference formula: https://www.asc-aqua.org/wp-content/uploads/2017/07/ASC-Salmon-Standard_v1.1.pdf

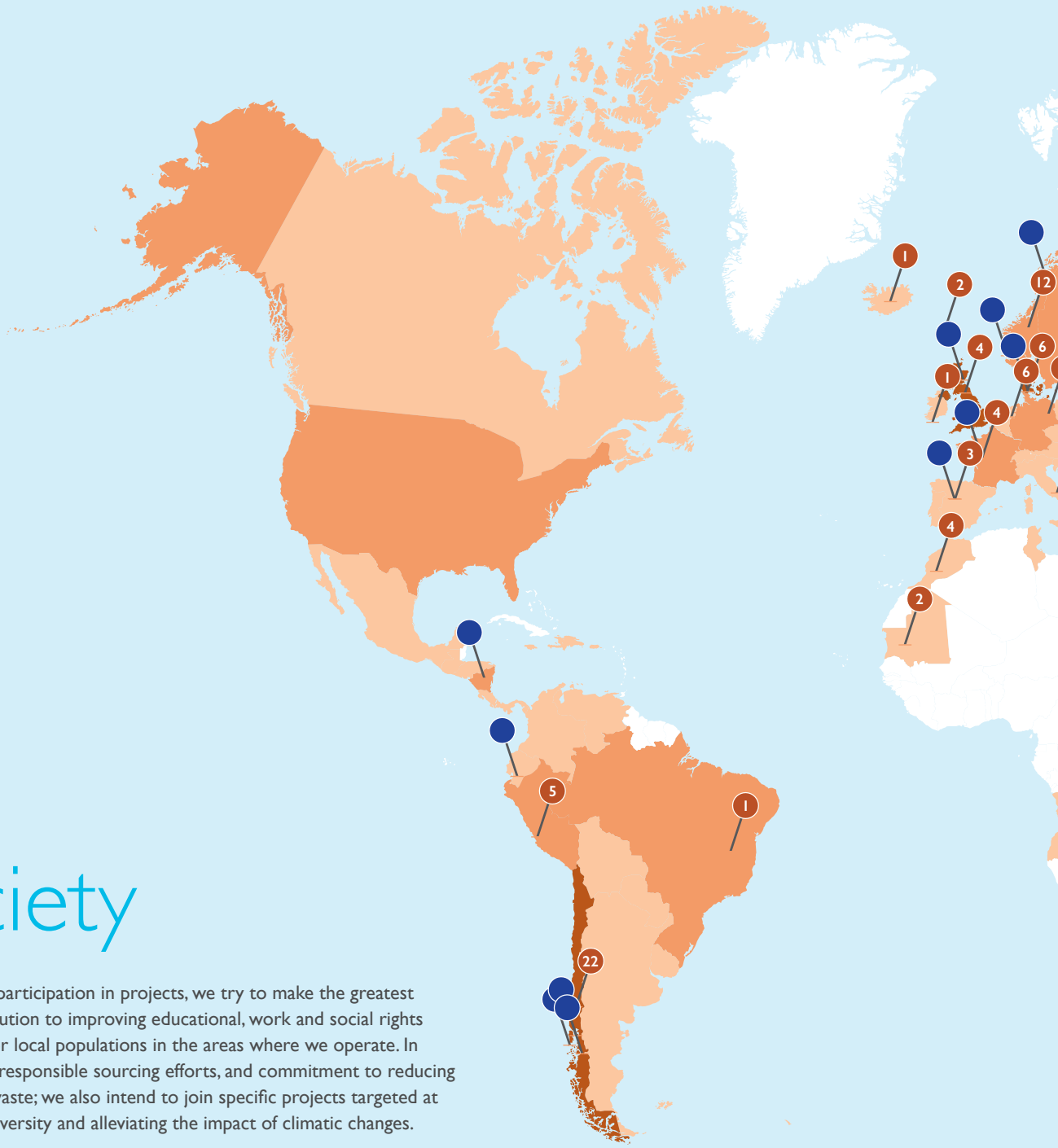
Supplier Approval, Audit and Traceability

The Supplier Approval, Audit and Traceability (SAAT) team is responsible for overall approval and auditing, as well as to ensure traceability of common raw materials and suppliers to BioMar divisions. This is done in close cooperation with the local purchasing departments. All suppliers are approved before raw materials are contracted and purchased by the BioMar Group for commercial use. Approval status may vary among BioMar companies.

The SAAT is responsible for setting the minimum standard for raw material suppliers to BioMar, based on the BioMar COC and resolutions made by the Sustainability Operational Committee, in agreement with the BioMar Sourcing Policy. Audits are an important control mechanism for this group. The Global Sourcing Director and SAAT team leader reports directly to the Executive Committee, which decides upon minimum standard approvals. Raw material transportation is part of the SAAT supplier approval system.

Raw material suppliers in the SAAT mandate includes producers and traders within the following categories:



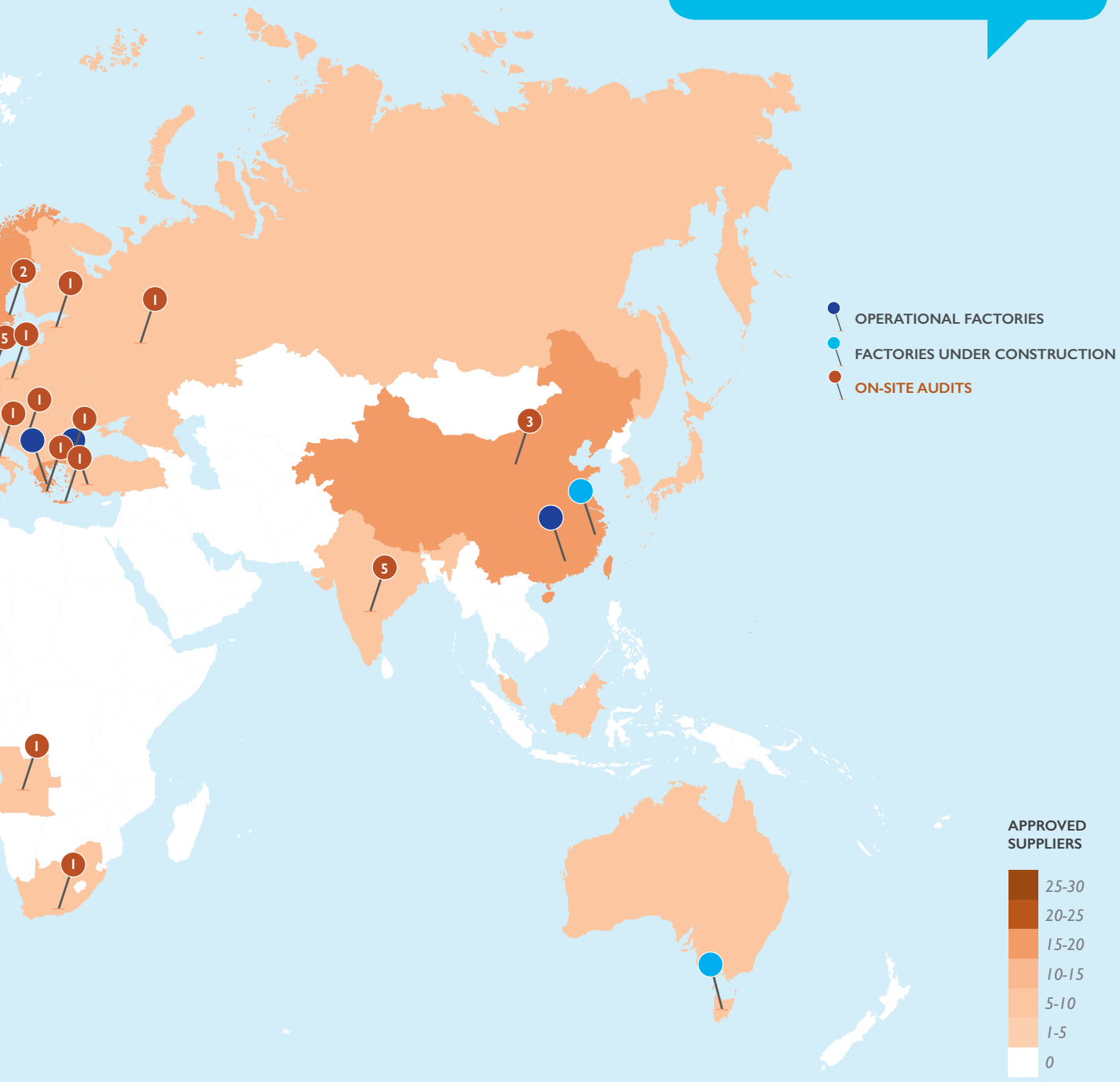


Society

Through active participation in projects, we try to make the greatest possible contribution to improving educational, work and social rights opportunities for local populations in the areas where we operate. In addition to our responsible sourcing efforts, and commitment to reducing emissions and waste; we also intend to join specific projects targeted at preserving biodiversity and alleviating the impact of climatic changes.

Figure 13. Countries and regions where BioMar operate, both directly in terms of manufacturing (blue pins) and indirectly in terms of procurement (coloured areas). Brown pins indicate number of on-site supplier audits by our global SAAT team from 2014-2018 (both first time approvals/audits and reapprovals/reaudits).

> We wish to improve living conditions for many people through the growth of our business and aid community and development projects in our geographic areas of sourcing.




BioMar

WALKING THE TALK

Photo: BioMar

Stories of 2018

We have many examples of good practice related to our sustainability focus and work. Below, we present some case studies and initiatives from around the world.

CHINA

Low impact feed

BioMar supply's feed in China with almost half the environmental footprint compared to local Chinese feed. The Chinese government began rolling out a new set of guidelines to accelerate green development of its aquaculture industry, that outlines a set of policies to reduce fish farmers' overall environmental footprint and promote transformation of the industry.

Over the last two years the BioMar BioFarm teams of China and Denmark have been collaborating with farmers in China to run technical onsite trials that consider the daily conditions of the water and the fish. The ideal recipe solution that was discovered considered the parameters of growth performance and fish welfare while limiting the discharge of nitrogen and phosphorous into the local ecosystem.

The Peoples Government of Qinhai Province have been supporting this initiative as they are located within the Tibetan Plateau where tens of thousands of glaciers also lay, acting as a water tower flowing into countless waterways across China and Asia including the Yellow River where Chinese civilization began.

Creating a low impact feed recipe by varying the ingredients plays a crucial role in reducing a farmers overall environmental footprint. That is because aquaculture feed traditional is responsible for up to 80% of the environment impact of rising fish due to the feed ingredients and production operations accounting for most of the mass energy flows in the value chain.

GLOBAL

Confidential whistleblower line

In BioMar, we always strive to do things in the right way. That is how we do business, and our ethical principles are an important part of our value proposition towards customers as well as towards employees. We want to be known for our integrity, reliability, transparency and trust.

We trust that the people we have employed are going to work and are making the right choices. People stay with us for many years and we all believe in the BioMar values. However, no world is perfect. There might one day be a trusted employee or leader not living up to his or her responsibility as being a part of BioMar, impacting colleagues and our brand by committing fraud, theft, being corrupt or by violating other principles in our Code of Conduct.

That is why we have introduced a whistle-blower line in cooperation with an external partner, Expolink. In this way we have created a confidential and anonymous space for everybody to step forward if they experience gross misconduct and there are no other means to solve the problem.

The whistle-blowing line is a service that enables employees as well as our third-party suppliers to report malpractice, unlawful or unethical behaviour within the workplace in confidence. The confidential hotline is available 24-hours a day, 365 days a year. Almost all languages are serviced and you are able to speak or write your message.

CENTRAL AMERICA

Shrimp Aquaculture Production Program

At BioMar we believe that if we work together a global sustainable aquaculture is achievable. In Central America we are running the most complete technical training program for shrimp farming in the industry. The aim is to offer comprehensive and specialised academic training on shrimp farming and technology to the local farmers.

The Aquaculture Production Program (PPA) designed in 2015 is not just a social program to ensure sustainable farming practices. It was formed together with Alimentsa technical specialist and the professors from the Polytechnic School of the Littoral (ESPOL) to enable academic accreditation. With the arrival of BioMar into the mix the program was strengthened with more aquaculture technical specialists.

Today the PPA program is run by Stanislaus Sonnenholzner PhD, director of the Aquaculture and Marine Investigation National Centre Polytechnic School of the Littoral (CENAIM). There are four main topics areas of Nutrition and Feeding, Lab Analysis, Technical Field Management and Cost Management.

It is an intensive course of over 100 hours. The academic classes are complemented with laboratory practices and visits to several production centres. Participants interact with the academic body to review real case scenarios. The objective is to provide tools for participants to improve the technical management of farms and become leaders in the sustainable growth of the shrimp industry.

ECUADOR

Turning feed bags into playgrounds

The BioMar's waste management programme promotes the idea of living in a circular econmoy, where we seek to get as many life cycles out of every resource we use. Waste management both primary and secondary waste through packaging is a key objective in our sustainability KPIs where we use the 3Rs inititive to Reduce, Reuse, and Recycle.

In BioMar Ecuador they launched a 3Rs program called "bags filled with ...". In this program we purchased back used old feed bags from our shrimp customers to transform them into recycled plastic. In Ecuador recycling is a relatively new idea and normally most shrimp feed bags are destined for landfill.

This programme not only promotes a culture of recycling but showcases how shrimp feed bags can have a second life by reusing them. The bags collected by BioMar have been sent to an accredited recycling company and they will be tranformed into hard plastic that will be used in the constuction of a new playground for the local community.

In 2019, we look forward to using this recycling plastic material in the construction of a new kids playground for the Huaylá community.

ANTARCTIC

Protecting the Antarctic

BioMar in conjunction with our supplier and partner Aker BioMarine, supported a Greenpeace call to create a marine protection area, including a no-fishing zones for krill in the Antarctic. The initiative was hailed as unprecedent with overwhelming support up and down the value chain from NGOs to retailers.

Krill is a wonderful ingredient for aquaculture feeds not only for its fish health and nutrition properties but because it is a natural source of carotenoids which give salmon and shrimp their great pink colour.

Krill is a natural source of essential nutrients in the diet of many marine species from penguins and whales to salmon and shrimp. It's important to BioMar that the world supply of krill is harvested responsibly and that the fisheries and companies supplying this essential ingredient have been certified by MSC who currently have the strictest certification program for marine harvesting.

Sourcing krill can be done at safe levels that considers the Antarctic ecosystem and marine species that rely on it as an essential nutrient in their diet. This initiative highlighted what can be achieved when we collaborate together under the one shared vision of a sustainable aquaculture industry.

EUROPE

Insect meal

Insect meal can play a role in reducing your overall fish in: fish out ratio (FIFO) and results from BioMar's R&D department show it to be a good substitute for fish meal. We have seen good test results on insect meal originating from black soldier flies, mealworms and others, which makes it a promising raw material.

The market volumes required of these raw materials to make it an economically viable option have not yet been realised, but that is not stopping some farmers and retailers eager to be market leaders to drive innovation and market acceptance of this novel material.

BioMar has been investigating insect meal since 2015 in our Aquaculture Technically Centre and from 2017 we began onsite trials. These fish have already made it to supermarkets in Europe among retailers eager to implement future-oriented food solutions that focus on natural foods.

BioMar have for several years undertaken projects with customers who wanted to create seafood brands that address consumer needs and expectations. Over the coming year we expect to see more branded seafood products making a differentiation through their feed recipe, as they seek to answer the consumer call for more sustainable seafood.

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LET'S INNOVATE AQUACULTURE