Planet of Plenty™ Report

Alltech Coppens 2021

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Message from our CEO

As I write this message, we are just over one year into a global pandemic that affects all of us. We see a spark of light at the end of the tunnel, as vaccinations are underway and hopefully result in easing restrictions in the second half of 2021.

Being, as a fish feed producer, a key stakeholder in the primary production value chain of the food industry, we are committed to supplying our customers around the globe. We do this in a responsible way to keep our people and valued customers safe.

The key elements that define the future of Alltech Coppens are based on Research & Development, Innovation and Sustainability. Alltech Coppens Aqua Centre (ACAC) is the cornerstone, with a very skilled and motivated team to answer all eminent questions to keep our leading position in the aquaculture industry. All projects within the ACAC are based on our 4P principle (Palatability, Performance, Pollution Control and Planet).

COVID-19 also enforced the urgency to act and intensify our focus on the fourth P principle: Planet.

Sustainability has become a non-negotiable, therefore triggering Alltech to commit to the United Nations Sustainable Development Goals (SDGs) in 2019. These SDG commitments are incorporated in Alltech and our president, Dr. Mark Lyons' vision for Working Together for a Planet of Plenty™.

"To create a more abundant world, we must collaborate across industries and geographies and discover, test and apply new ideas," said Dr. Lyons. "Our personal journeys will be unique and diverse, but if we work together, our destination can be the same: a Planet of Plenty in which there is enough nutritious food for all, the world's resources are responsibly managed for future generations and the environment is safe for people, animals and plants to thrive in harmony."

As a European fish feed company with a large home market, we also support the European Green Deal that works towards zero net emissions of greenhouse gases in 2050.

"Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, Europe needs a new growth strategy that will transform the Union into a modern, resource-efficient and competitive economy, where:

- *There are no net emissions of greenhouse gases by 2050.*
- *Economic growth is decoupled from resource use.*
- *No person and no place is left behind.*

The European Green Deal is our plan to make the EU's economy sustainable. We can do this by turning climate and environmental challenges into opportunities and making the transition just and inclusive for all."

Reference: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

To achieve our ambitions, Alltech Coppens established a Planet of Plenty team (PoP-team) in 2020. The PoP-team has members from different departments, ensuring a healthy mix of opinions and insights.

With pride, find before you the first Sustainability Report from Alltech Coppens.

Our world will recover from this pandemic and give us new energy and direction towards a Planet of Plenty.

Ronald Faber
CEO of Alltech Coppens & Global Aqua Lead

History of Alltech Coppens

Coppens International BV (CI) was established in 1993 by three Dutch shareholders. At this time, CI developed and sold fish feeds (worldwide) and animal feed and premixes (outside of The Netherlands).

The fish feed was produced by the majority shareholder (Family Coppens) at their feed mill in Helmond. Initially, the feeds were produced by pelletizing and sold mainly in the Mediterranean for seabass and seabream. In 1995, the first extruder was put into operation at the factory in Helmond.

In 1996, a change in shareholding took place. In 1998/1999, the product range was diversified with ornamental fish feeds and baits and feeding pellets for the angling market. The export of animal feed and premix had always been a small part of the CI business and was devested at the beginning of 2000.

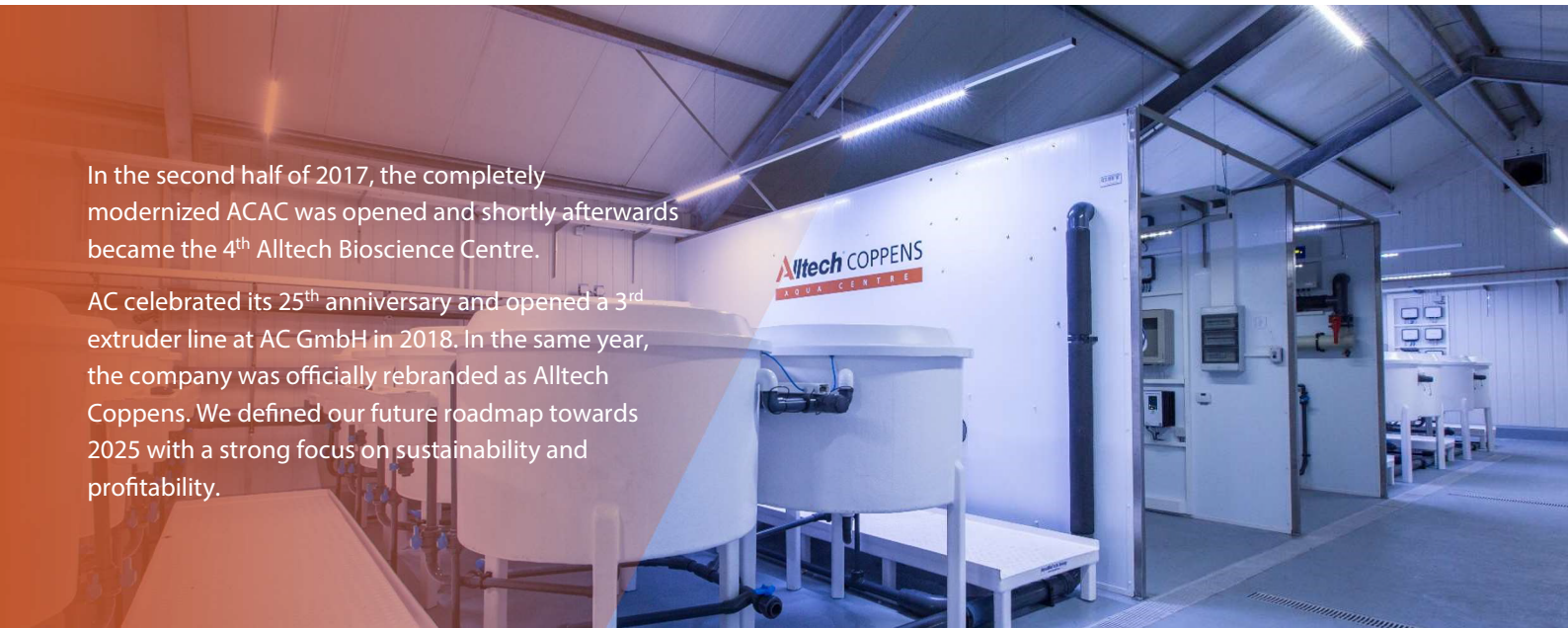
In this period, the first research trials were outsourced at the “Organisatie ter Verbetering van de Binnenvisserij” (OVB), now known as ACAC in Leende. Over the following two decades, the cooperation was gradually intensified, and the number of trial days significantly increased.

In the first 10 years, the number of employees increased from 5–25 FTE and the sales volume from 1,000–15,000 MT. In 2003, a major investment was made in a vacuum coater to be able to produce high-energy feeds for new species, like trout and eel.

A market shift was needed due to the high-risk situation, long payment terms and low feed prices in the Mediterranean on which the company was heavily depending. To compensate for the loss in sales in the Mediterranean, the focus shifted to RAS in Europe, trout in the Balkans and Russian region, catfish in Western Africa and loan production for French company Sarb Gheerbrant (SARB). In 2006, the loan production with SARB was terminated as the production line reached its maximum capacity, mainly due to the fast growth in sales in Western Africa. In the following years, the surplus of sales was outsourced to European fish feed producers.

In 2010/2011, the Coppens family decided to sell their shares to an investment company. In 2012, CI purchased a pet food production facility in Nettetal, Germany (now known as AC GmbH), started a complete renovation and invested in additional warehousing. During 2012, CI also purchased all intellectual rights and the brand name SARB. At the end of 2014, the last batch of fish feed was purchased from Coppens Diervoeding and from that moment onwards, all fish feeds were produced at the current production location.

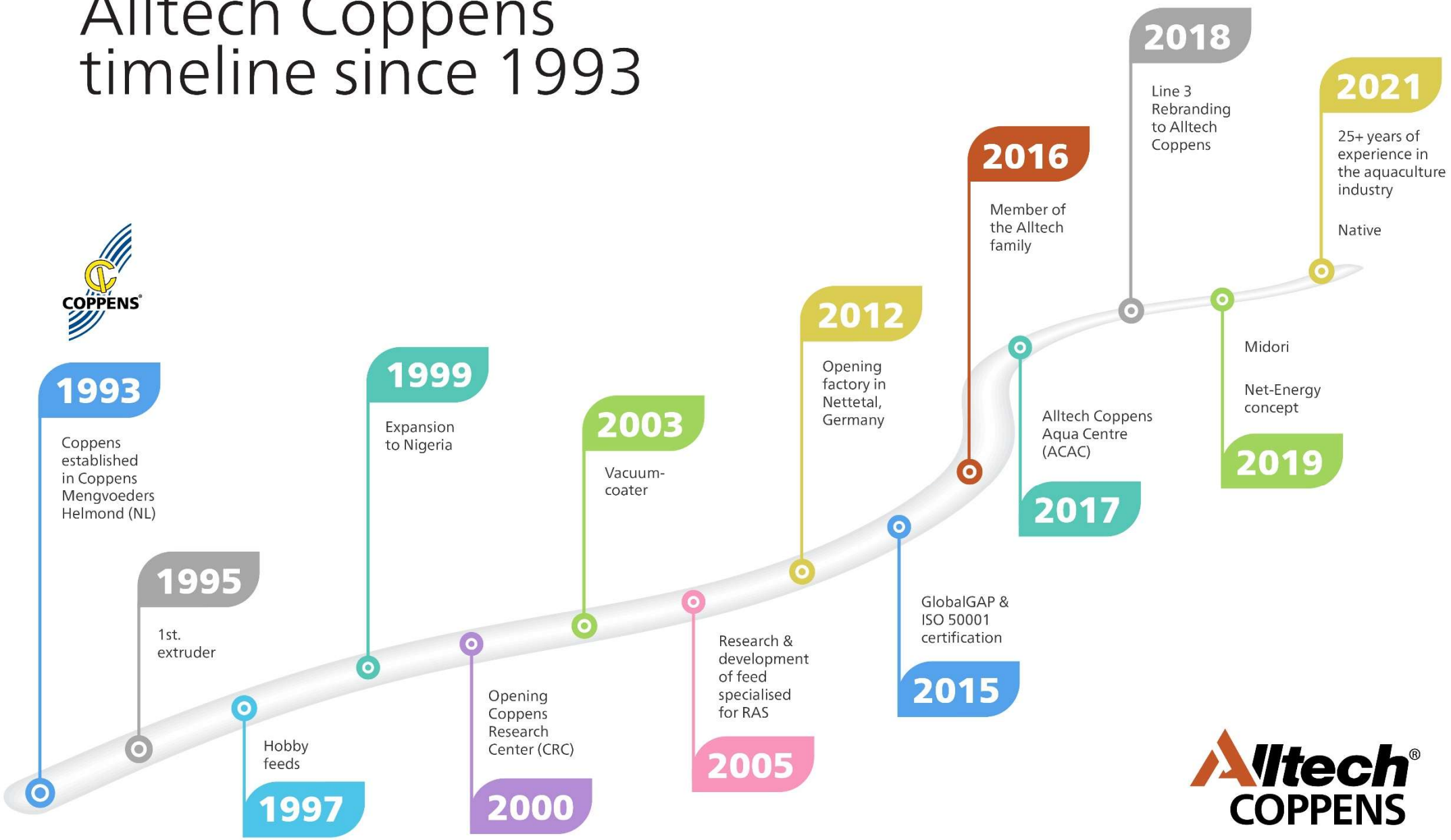
In 2015, Global G.A.P. and ISO 50001 certifications were obtained. In the middle of 2016, 100% of the shares of all three entities, which are now known as AC BV, AC GmbH and ACAC, were purchased by agri-food industry giant Alltech Inc., USA. The number of employees has since grown to 125–150, depending on the season.



In the second half of 2017, the completely modernized ACAC was opened and shortly afterwards became the 4th Alltech Bioscience Centre.

AC celebrated its 25th anniversary and opened a 3rd extruder line at AC GmbH in 2018. In the same year, the company was officially rebranded as Alltech Coppens. We defined our future roadmap towards 2025 with a strong focus on sustainability and profitability.

Alltech Coppens timeline since 1993



Product portfolio and accomplishments

We offer a wide range of specialist fish feeds, which can be divided into Industrial feeds for the aquaculture sector and Hobby feeds for the ornamental and angling sectors. Our complete range of feeds is antibiotic- and GMO-free.

We are recognized, in particular, for our high-quality feeds for a broad range of species, including trout, sturgeon, catfish, eel, tilapia and carp. For each species, we provide the full range from starter feeds, grow-out feeds and broodstock feed. All our feeds are thoroughly tested at ACAC.

We specialize primarily in trout feeds for diverse culture systems. Our focus species are trout and sturgeon for semi-intensive and intensive systems and RAS.

Alltech Coppens exports to more than 60 countries worldwide.

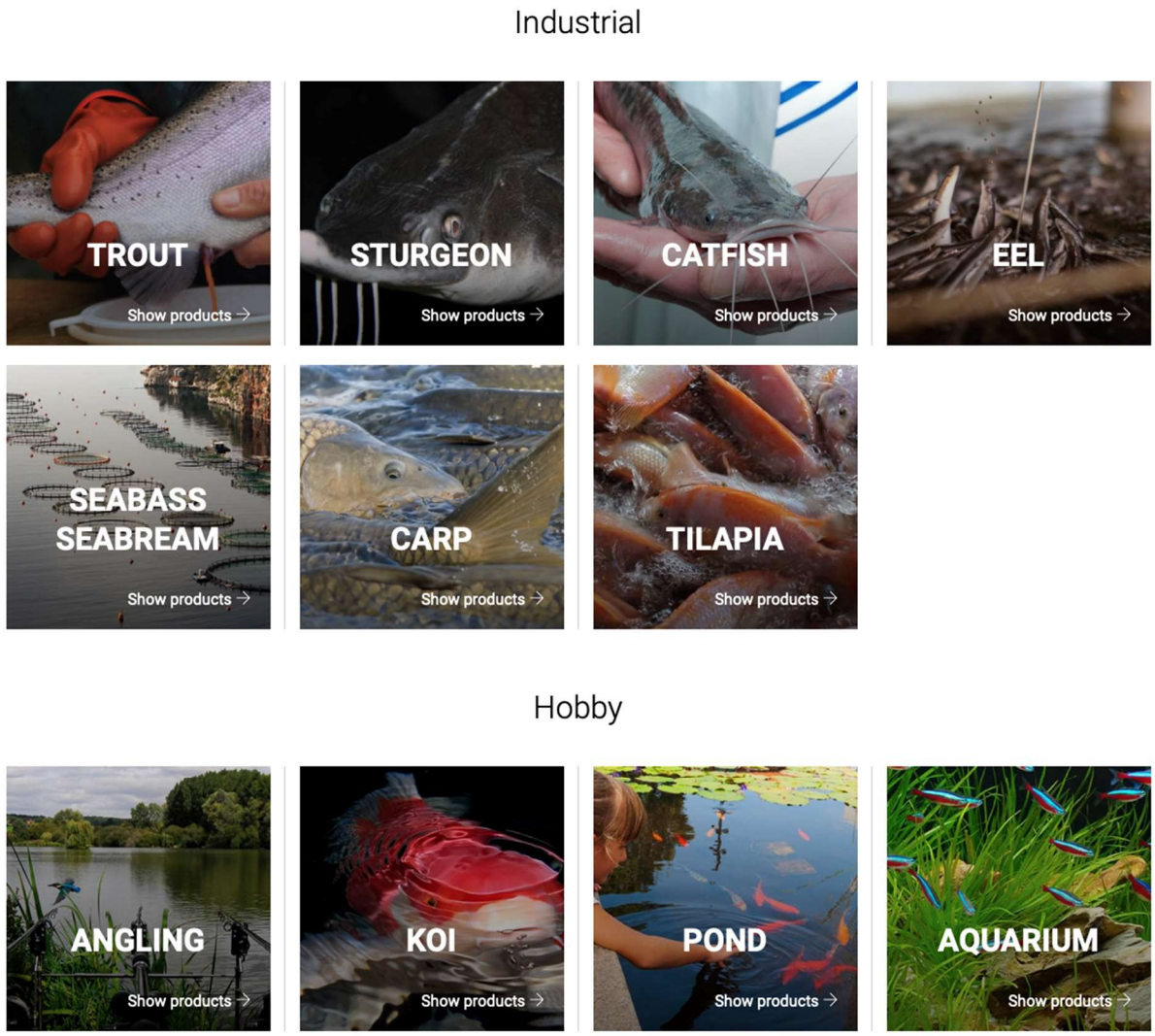


Figure 1: Our feed assortment

Mission statement

The global population continues to grow quickly, and so does the demand for healthy food. The world is changing rapidly, and everyone has a role to play. We at Alltech Coppens produce fish feed and help the farmers reach a product that will answer to the highest market and consumer demands and is in balance with nature and society.

As a relatively small player in the field of aquaculture feeds, our goal is to remain competitive with world players in all aspects.

Our mission at Alltech Coppens is to produce a broad range of high-quality fish feeds with passion and care. Our attention to detail makes us a reliable expert and partner to our customers while being wholly dedicated to their performance. We continue to innovate and improve our products to ensure the highest quality.

We believe we have an important role to play in helping fish farmers around the world produce a safe, nutritious and sustainable product. We believe aquaculture has a key role to play in a **Planet of Plenty™**. Through careful management of resources, good science and partnering with our customers, we can contribute to a sustainable aquaculture industry.

Within Alltech Coppens, we believe that compliance alone is not enough. Sustainability is integrated within our whole business and is one of our key factors for our strategic growth. The developed concept of a **Planet of Plenty** emphasizes this.

Figure 2: The 5 steps within the sustainability Journey


Working
together
for a
Planet
of Plenty™

Planet of Plenty™

The ACE Principle

Alltech's mission is guided by its founding ACE principle, which sets standards for the benefit of the Animal, Consumer and Environment. It was a radical idea for the early 1980s when Alltech founder Dr. Pearse Lyons first introduced it but remains central to our core values and is reflected in our vision for the future: **Working Together for a Planet of Plenty.**

We firmly believe aquaculture has the potential to shape the future of our planet. We are inspired by the great challenge the world has presented us — to produce enough safe, nutritious food for all while caring for our animals and sustaining our land, air and water for future generations. Our natural resources may be finite, but human ingenuity is infinite.

In the current situation, where the news is mainly COVID-19 related, you may not think that sustainability, or the Sustainable Development Goals (SDGs), are as crucial as a pandemic. But they definitely are.

COVID-19 should be a wake-up call to all of us. What the pandemic has done in many aspects is simplified many things momentarily. It has provided us the perfect opportunity to see the world around us in a different light, to look at it as a **Planet of Plenty**. In this current situation, we are now able to see more clearly what is important and what, perhaps, is not. That is why we should embrace new insights emerging from this situation as a way of embedding the SDGs into our business.

With COVID-19, it becomes evident how one specific incident is having a significant impact on every other issue and how all the pieces of the puzzle come together to create a unified agenda for global sustainable development. Governance, partnerships, gender equality, decent work — every single one of the 17 SDGs is relevant and has an impact on us.

We at Alltech Coppens are aware of the current rapidly changing world and see the strong focus on environmental and social as an opportunity. Based on the ACE Principle and our mission to create a planet suited for a better future, we developed our **Planet of Plenty** vision.

The Planet of Plenty team

A **Planet of Plenty** propels us into a new world of possibilities, where anyone and everyone can make a positive impact on the planet. Every second of every day, there are people thinking, trying, testing, flying, investing, inspiring and applying new ideas, with an insatiable drive to guarantee a world where people, animals and plants can thrive together. We all have unique journeys, but if we work together, our destination can be the same: A Planet of Plenty in which there is enough food for all, the world's resources are responsibly managed for future generations and the environment is safe for people, animals and plants to thrive in harmony.

An important component of the **Planet of Plenty** vision is the need to listen to experts and professionals, from fish farmers to scientists to economists, as well as those in many other professions. Even when we do not fully agree with the ideas that experts present, it is important that we acknowledge them. We need to take the time and energy to understand them and, if we agree, put a little more energy in and make sure we can communicate these ideas to a broader audience. Their insights and their ideas often hold the key to not only those new innovations but the mere survival, at times, of our industry and our society. Making sure that we are giving time to those experts, I hope, will be a legacy of this time. "We are on a journey, a journey of sustainability, and we've learned that this is never a destination," said Dr. Mark Lyons. "It's something that we will be constantly changing, as we always have."

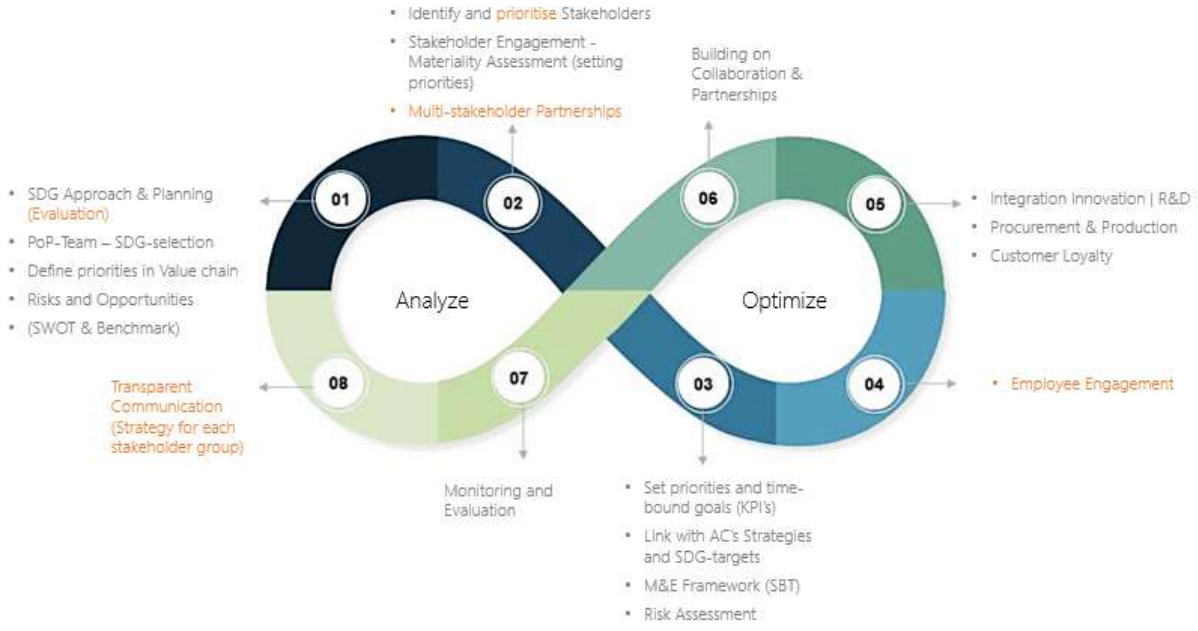


Figure 3: The ongoing stages of our sustainability approach

On this journey, the only way that we can move forward is together. We believe that sustainable actions should be embedded within each decision and action in our business. Therefore, we created a **Planet of Plenty** team consisting of members from different departments, including sales, quality, nutrition, research, operations, supply chain and procurement. This team meets at least once every four weeks to discuss ongoing actions and to outline our next step(s) toward a **Planet of Plenty.** With this approach, we ensured that the principles of a **Planet of Plenty** are embedded within the entire organization instead of focusing only on one individual department every time.

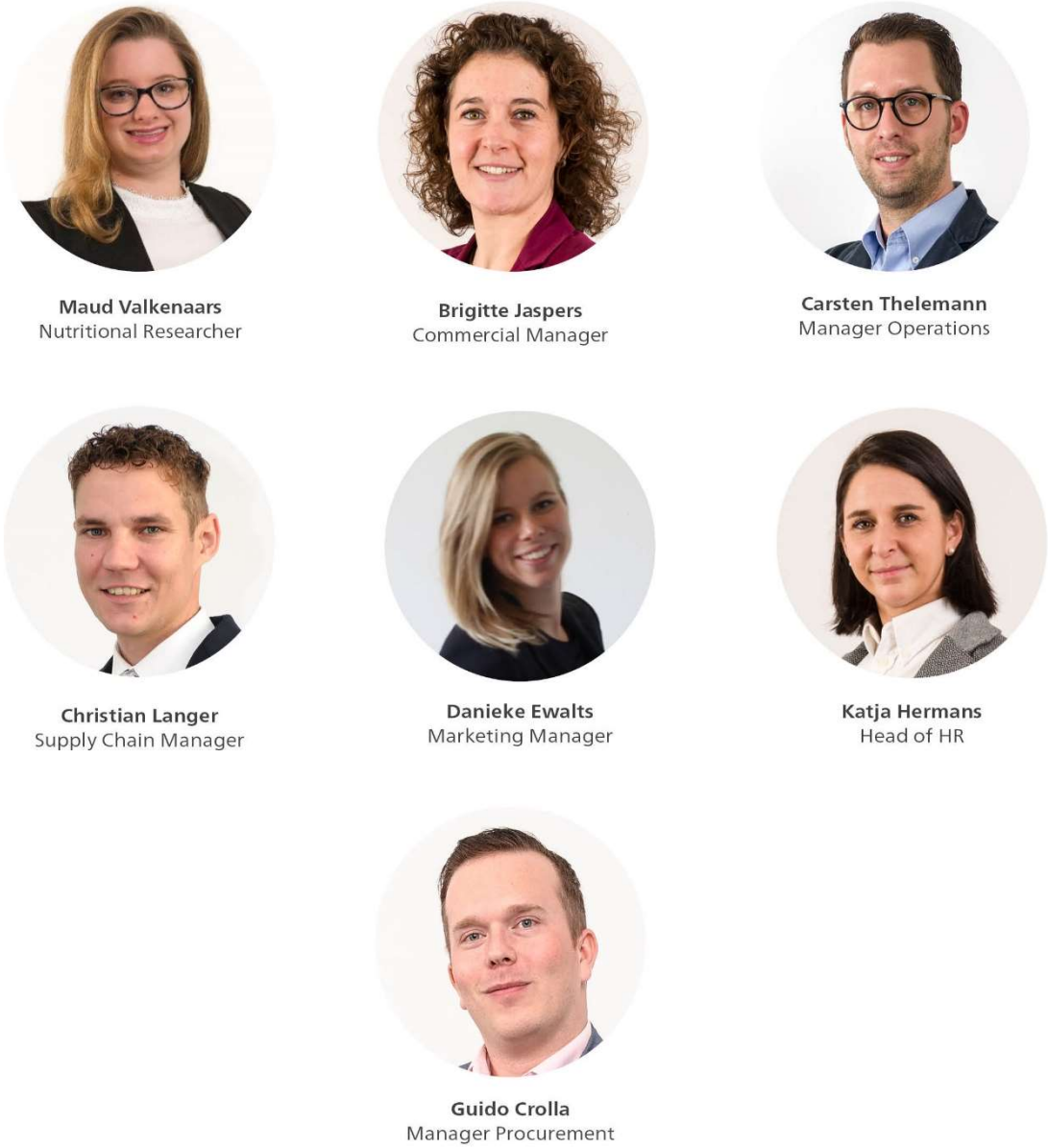


Figure 4: The members of the Planet of Plenty ™ Team

United Nations

We committed ourselves to the United Nations Global Compact (UNGC) on July 12, 2019. The UNGC provides corporations with a value system and principle-based approach to conducting business. We strive to operate in a way that meets fundamental responsibilities in the areas of human rights, labor, the environment and anti-corruption, and we are working to incorporate the Ten Principles of the UNGC into our strategies, policies and procedures.

Those ten Principles are coming back in our GLOBAL G.A.P. certification as well, which covers good practice for aquaculture. It also covers additional aspects of the food production and supply chain, such as the chain of custody and compound feed manufacturing.

The **GLOBAL G.A.P.** is built on a system of modules that enables producers to get certified for several sub-scopes in one audit. To get certified, producers must comply with all the CPCC relevant for their sub-scope. The modules consist of:

- **General regulations:** These map out the criteria for successful CPCC implementation as well as set guidelines for the verification and regulation of the standard.
- **Control Points and Compliance Criteria (CPCC):** These clearly define the requirements for achieving the quality standard required by the GLOBAL G.A.P.

Sustainability means taking positive action today for the success of tomorrow. It is a pursuit where there is always room for improvements leading to new ideas. Our belief in the possibility of a **Planet of Plenty** is rooted in the reality we see on farms throughout the world. We are committed to telling the stories of the passionate men and women advancing aquaculture and bringing us one step closer to a **Planet of Plenty**.

In joining the world's largest corporate sustainability initiative, there are nine of the United Nations' 17 Sustainable Development Goals (SDGs) that we feel most closely aligned with our core business and are, therefore, actionable by the company in order to move the SDGs forward.

The Sustainable Development Goals

Doing business all over the world comes with important responsibilities that extend beyond just running a profitable business. We at Alltech Coppens strive to positively impact the markets in which we operate, and sustainability is embedded in our business strategy. Achieving real and lasting change is only possible through the collective efforts of everyone who works at Alltech Coppens, as well as our customers, partners, suppliers, NGOs, governments, local communities and other stakeholders.

We are determined to contribute to the UN Sustainable Development Goals (SDGs). Our focus areas are linked with specific SDGs and their targets, ensuring that we make a meaningful and transparent contribution to the global goals to protect the planet and reaching a **Planet of Plenty.**

In joining the world's largest corporate sustainability initiative, we focused on nine SDGs that we feel most closely aligned with our core business. Our prioritized SDGs include:

Figure 5: The nine prioritized SDGs

2 ZERO HUNGER

Aquaculture is the fastest-growing food production sector worldwide. Over the past three decades, aquaculture has expanded, intensified and diversified. The current growth rate of aquaculture production exceeds all other types of meat production and is expected to increase even further. With the introduction of new species, together with the intensification of the sector, adverse environmental conditions are increasingly encountered. In addition, consumers are becoming aware of these issues and starting to focus more and more on the environmental and social impacts of the aquaculture sector. Seafood is the main source of animal protein for humans in many parts of the world, particularly in developing countries. Depending on species and country, farmed seafood contributes to food security directly through domestic consumption or indirectly through economic growth from exports.

Within Alltech Coppens, we are working closely together with local partners and factories to produce efficiently and, at the same time, minimize adverse effects on the environment. Along with sharing our knowledge and experience, we want to provide the local communities with better feeds and lower the feed conversion ratio. By doing this, we are not only providing the communities with more food but decreasing the usage of raw materials too.

3 GOOD HEALTH AND WELL-BEING

We committed ourselves to provide a safe work environment and avoid the risk of harm to our people. This includes developing robust safety standards, tools and procedures and a strong safety culture that promotes safe behaviors. Our HACCP team (hazard analysis and critical control points) ensures feed safety within our processes.

One of the points in our sourcing policy is related to this SDG, too, as we require that "*The working conditions in the country of origin of the products delivered to Alltech Coppens are in compliance with the Ten Principles of the United Nations Global Compact.*"

Alltech Coppens supports social and economic wellbeing through investments in local entrepreneurship, education and community initiatives, as well as donations and employee volunteering.

We support people to eat more fish and teach them the health benefits of omega-3. Research shows people who regularly consume fish tend to have lower rates of heart disease and strokes. These fats are known to help lower your heart rate, reduce the risk of clotting, lower triglycerides, decrease blood pressure, improve blood vessel function and delay the build-up of plaque in coronary arteries.

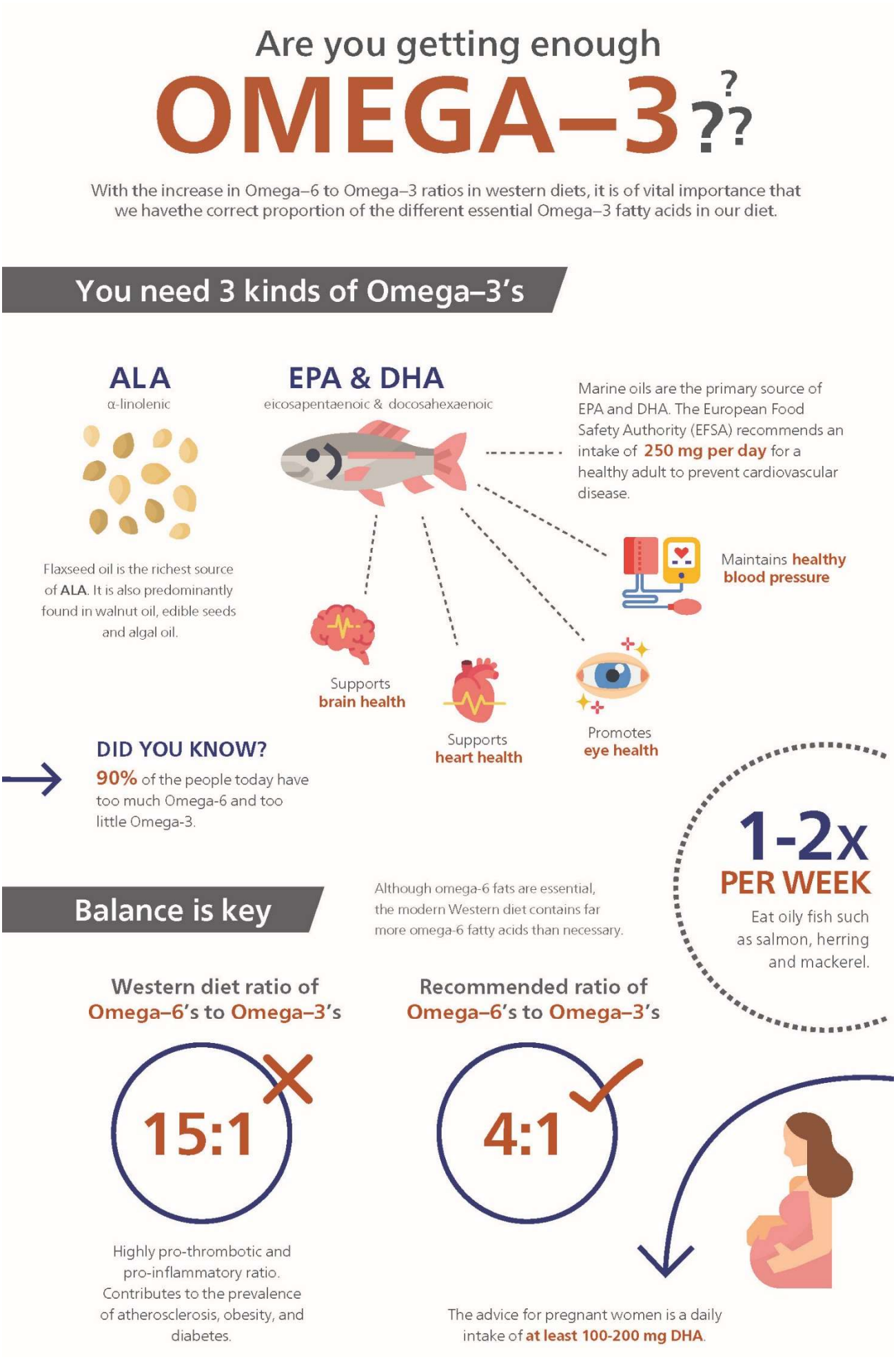


Figure 6: Our leaflet about omega 3

4 QUALITY EDUCATION

We share our knowledge and experience with our stakeholders all over the world. We organize seminars on location, give presentations and hold webinars. We are not only focusing on efficient fish farming but waste and water management as well. Furthermore, we created the RAS manual, which is freely available on our website. In 2021, we started the Alltech Coppens Academy, enabling even better training for our employees, customers and other stakeholders.

In addition, Alltech Coppens is cooperating with several universities and other schools, offering apprenticeships the whole year-round.

5 GENDER EQUALITY

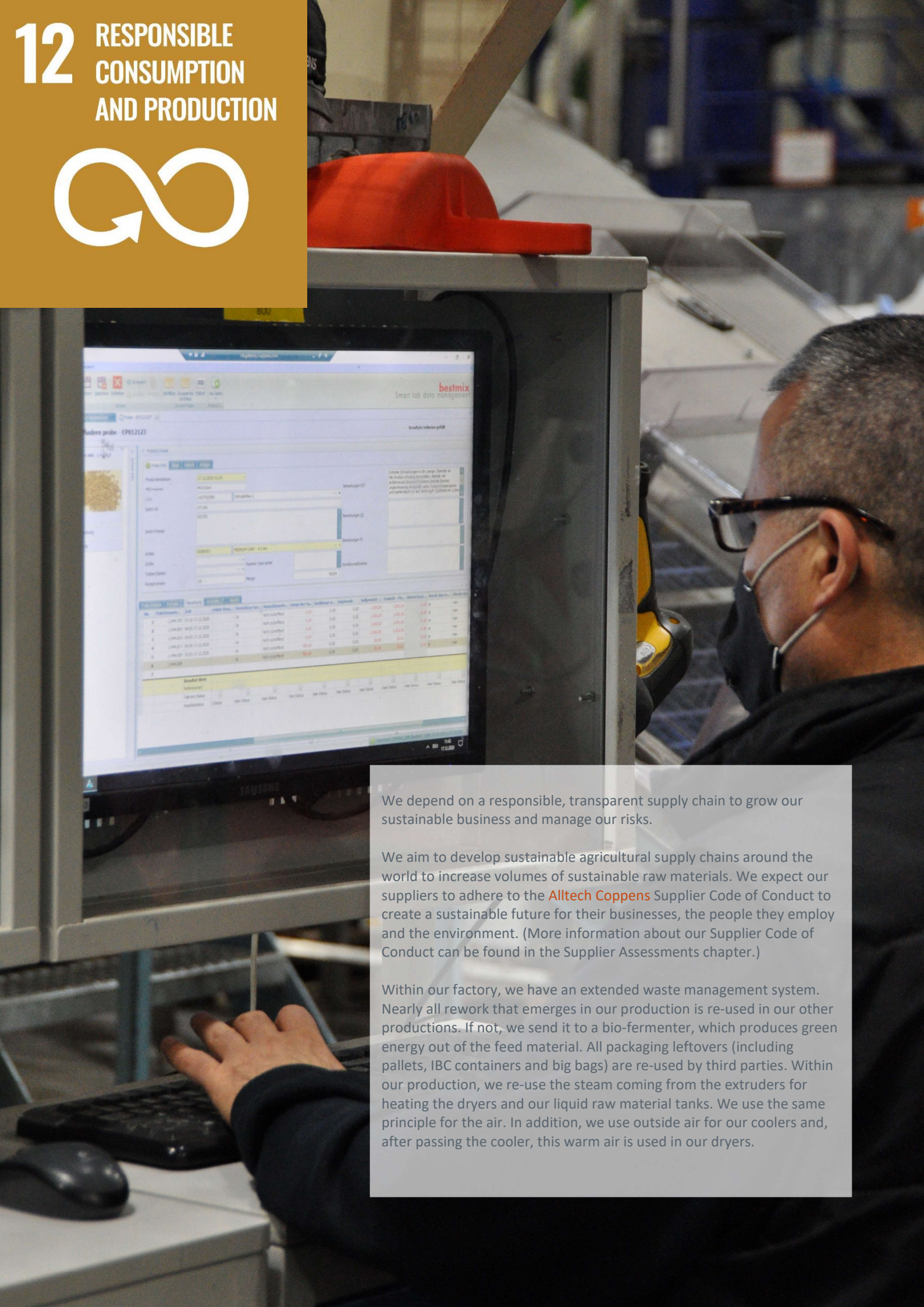
Alltech Coppens believes that inclusion cultivates creativity and drives innovation. Gender equality is not only a fundamental human right but essential to advancing society and the global agri-food industry. To gather real-world insights into the professional landscape for women in agriculture, Alltech has announced its support to the annual Women in Food & Ag survey.

"In order to achieve a **Planet of Plenty,** it is more important than ever for the agri-food industry to perform at its full potential. Human ingenuity is our Earth's most valuable resource, and a diverse workforce is essential to building a more sustainable future."

Dr. Mark Lyons, president and CEO, Alltech.

Figure 7: Diversity at Alltech Coppens

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



We depend on a responsible, transparent supply chain to grow our sustainable business and manage our risks.

We aim to develop sustainable agricultural supply chains around the world to increase volumes of sustainable raw materials. We expect our suppliers to adhere to the Alltech Coppens Supplier Code of Conduct to create a sustainable future for their businesses, the people they employ and the environment. (More information about our Supplier Code of Conduct can be found in the Supplier Assessments chapter.)

Within our factory, we have an extended waste management system. Nearly all rework that emerges in our production is re-used in our other productions. If not, we send it to a bio-fermenter, which produces green energy out of the feed material. All packaging leftovers (including pallets, IBC containers and big bags) are re-used by third parties. Within our production, we re-use the steam coming from the extruders for heating the dryers and our liquid raw material tanks. We use the same principle for the air. In addition, we use outside air for our coolers and, after passing the cooler, this warm air is used in our dryers.

13 CLIMATE ACTION

Climate change is one of the greatest threats facing society, but global emissions continue to rise. We, as a business, must help to limit climate change. We focus on reducing our carbon footprint across the entire business. Raw materials and packaging are a major contributor to our carbon footprint, and we are setting clear design and production rules for recycling and increasing the recycled content of packaging. All of our packaging is now 100% recyclable.

While updating our production process, we decreased the amount of plastic waste. In 2020, this reduction reduced our CO_2 emissions by an amount equivalent to 56,000 tree seedlings grown for 10 years. Additionally, through an out-of-the-box mindset and changing our production and milling process, we decreased our CO_2 emissions by another 956 metric tons (the same amount as driving a car 114 times around the world).

Furthermore, we increased our minimum order quantity up to two full pallets. By doing this, we significantly decreased our transport emissions.

Last but not least, we set ourselves the goal to be completely carbon neutral at our Alltech Coppens Aqua Centre by 2025.

14 LIFE BELOW WATER

Businesses have a role to play in the area of ocean management, as their practices and operations can greatly affect marine life and resources, as well as generate waste and pollution. Beyond those industries that directly depend on marine ecosystem services and biodiversity, all businesses share responsibility for the conservation and sustainable use of ocean and marine resources.

The global FIFO factor for our industry is 0.27, which means we need 270 grams of wild-caught fish to produce 1 kg of farmed fish. This is calculated by dividing the fish caught for aquaculture feed production use by the farmed fish fed with these feeds. If we do the same for Alltech Coppens, we have a FIFO factor of 0.10.

Last year, 100% of the fishmeal we sourced was either made from trimmings and/or was certified. Our goal for 2025 is to use only 100% certified and/or trimming marine ingredients.

2020	
Raw material	**Certified and/or made from trimmings**
Fishmeal	100% Marin Trust, ASC, MSC or equivalent
Fish Oil	88% Marin Trust, ASC, MSC or equivalent
Krill meal	100% MSC

Figure 8: The usage of marine raw materials in 2020

60% of the world's ecosystem services have been degraded over the past 50 years, and we continue devaluing our natural resources at an alarming rate. We at Alltech Coppens are against any form of deforestation. Every single gram of soy we use in our production is responsibly sourced and certified accordingly. In addition, in order to be less dependent on soy, we are continually researching alternative protein sources. This research includes the use of higher levels of materials grown in the EU, such as sunflower, as well as more novel materials, such as algae, insects and single-cell raw materials.

We believe that there are no leftovers and waste. Around 20% of our raw materials in 2021 will consist of land animal by-products. So instead of throwing the slaughter disposals away, they are further processed to make high-quality fish feed.

17 PARTNERSHIPS FOR THE GOALS

Alltech Coppens believes that all activities should be guided by a sense of purpose, which drives our support for the communities in which we operate. Our team members adopt local causes that are close to home, giving each endeavor personal attention. We believe that education is the primary catalyst for success and that progress is driven by insatiable curiosity.

Alltech Coppens leads multiple initiatives to inspire the next generation of change-makers. Throughout the world, examples of Alltech Coppens educational initiatives abound. From European universities to supporting primary schools in Ghana, we have shown our strong support of education across every region. Our scientists and colleagues are active in local science education outreach across the globe to discuss and demonstrate scientific activities, provide expertise and serve as resources for community educators and organizations.

Alltech E-CO_2 is helping us as well. Alltech E- CO2 delivers and promotes sustainability programs. Together, we work across the supply chain to provide our stakeholders a comprehensive range of advice, tools and services to help measure and improve environmental performance (see www.alltech-e-co2.com for more information).

In addition, we are proud that the ONE Alltech Ideas Conference is challenging attendees from around the world to innovate and adopt more sustainable practices.

Materiality assessment

In the sustainability world, "materiality assessments" are the backbone of reporting. They help identify an organization's most "material issues" and determine what should be reported. The process of identifying these issues involves reaching out to internal and external stakeholders to get their input. Alltech Coppens strongly depends on the long-term relationships we develop with our key stakeholders along the way.

Employees: Alltech Coppens employed 140 persons over the 3 locations in 2020. We are committed to providing safe and fair working conditions and are a diverse team.

Suppliers: We ask, expect and select our suppliers to adhere to our supplier code of conduct to create a sustainable future for their business, the people they employ and the environment.

Customers: We seek to make a positive contribution to the performance of our customers by providing high-quality fish feeds and technical services to them.

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.

Stakeholders	How we engage with our stakeholders	Stakeholder expectations	Included in 2020 stakeholder survey
Employees	* Day-to-day contact * Employee SharePoint * Team meetings * Employee survey * Management conferences * Social media	* Best-in-class employer * Safe working environment * Fair remuneration * Good work-life balances * Open and fair communication	Yes
Customers	* Day-to-day contact * Newsletters * Advertising and articles * Technical support meetings * Social media * Local events	* Partnership approach * Fair pricings * Honor the agreed obligations * Traceability * Open and fair communication * Product quality * (Technical) support * Innovation	Yes
Suppliers	* Day-to-day contact * Supplier code of conduct * Audits * Technical meetings * Contracts, specifications and other documents * Social media	* Partnership approach * Fair pricings * Honor the agreed obligations * Traceability * Open and fair communication	Yes
(Local) Government	* Membership of different associations * Technical committees and groups * Ad hoc meetings	* Compliance with regulations and standards * Contributions to policy consultations	Yes
Researchers/Academics/ Students	* Technical meetings * Conferences and trade-fairs * Training and seminars	* Partnership approach * Open and fair communication	Yes

Local communities	* Day-to-day contact * Social media * Local media	* Open and fair communication * Transparency * Sustainable practices	Yes
NGOs	* Conferences and trade-fairs * Ad hoc meetings	* Sustainable practices * Transparency	No
Media	* Interviews * Press releases	* Transparency	No

Figure 9: Stakeholder overview

Based on the outcomes of the stakeholder survey 2020, Alltech Coppens developed seven key performance indicators (KPIs) against five different material topics. We measure our performance based on the below KPIs.

Topic	Material topic	KPI
Environment	Limit plastic usage	1) Percentage of plastic materials (packaging) per kg feed sold
	Limit greenhouse gas emissions	2) Emissions in metric tons of CO_2 equivalent
	Minimize the use of land, water and energy	3) Percentage of sustainable soy
		4) Percentage of sustainable marine ingredients (certified and/or trimmings)
		5) Percentage of energy and water per unit produced
People and society	Safe and fair working conditions	6) Number of incidents
	Feed safety	7) Number of complaints due to non-compliance with policies and voluntary codes

Figure 10: How we measure our performance

On top of those KPIs, we work with four principles to produce the perfect fish feed for each customer demand and have the most relevant research program. Those four principles are called 'the 4 Ps of Alltech Coppens' and are related to every feed we produce.

The 4 principles for the highest quality fish feed

The four principles are categories in which important measurables are brought together. By quantifying these measurables in the available raw material and defining the needs of the market, fish farm and consumer, we are able to design our feed in a more flexible way for the highest quality for the customer. We use these four principles to translate the customer needs into the correct nutrition of our products and the most relevant research program.

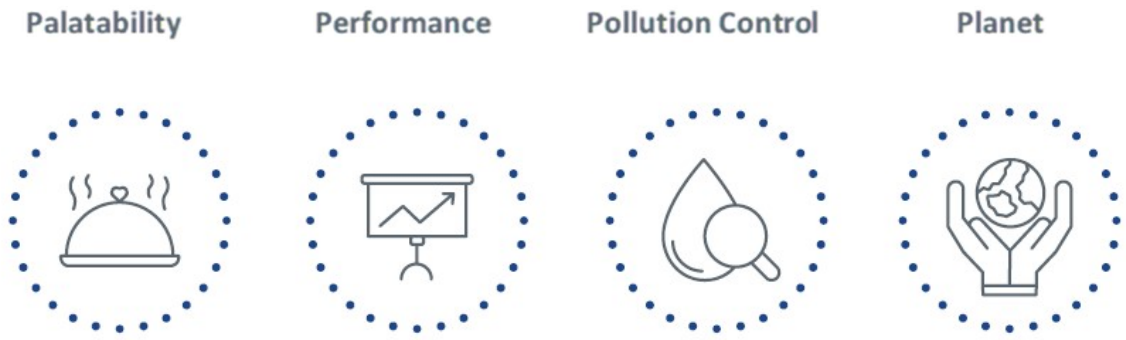


Figure 11. The four principles (the 4 Ps) of Alltech Coppens

1. **Palatability**

The first P is Palatability. We define this as “the first P” since we saw a clear order of importance in the different principles. The order is strongly related to the development of a certain country, market or consumer. In the 1960s, when aquaculture started, feed mills and fish farmers only focused on palatability. The first compound feed was produced in that period and feed mills could see a difference if they formulated feeds that were just eaten by the fish.

When we quantify the P of Palatability, we divide this into two important measurables: taste and maximum feed intake. Taste is the short-term effect of a certain feed or raw material on the feed intake of the fish and their ability to adapt to this taste. Data from research suggests that the negative or positive taste effect of a given feed is predominantly observed over a short term. A few days after the change, this results in the maximum feed intake of a certain feed. This is of the utmost importance to the fish farmer since it determines growth potential. However, it is important to note that it is not only the taste that affects maximum feed intake. Intake is negatively linear related to the energy level in a feed. Higher energy levels result in a lower maximum feed intake.

2. **Performance**

The second P is Performance. Twenty years later, in the 1980s, when compound feed was the standard for fish farms, producers started measuring growth, feed conversion and fillet yield. At this point, fish were expected to eat the feed — palatability was a no-brainer. However, energy level, available amino acids and essential micro-nutrients are the principal drivers that determine the performance potential of a feed. If the needs of the fish for these essential amino acids and micro-nutrients are covered, it is the energy level in the feed that is linearly related to its growth potential. The energy available at the end for maintenance and growth of the fish is called net energy. We were able to quantify the loss of undigested energy and calculated the net energy. Therefore, we can quantify the P of performance and compare this between raw materials and feeds.

3. **Pollution control**

After the fish eat the feed, digest it and grow from it, the logical effect is that the fish excretes waste products. In the 1990s, pollution started to play a role in cage farming, whereby the farms checked the sediment below the cages and the fauna under the cages and around it. Pollution control became even more important in the 2000s when fish production was performed on land in recirculation farms. For fish farmers, it is relatively easy to measure the water quality or see the effect of the water quality on the health and wellbeing of the fish.

Quantifying this third P in the feed is not easy. We divide the effect a certain feed has on the water quality into three different categories. The first category is the excretion of dry matter, nitrogen and phosphorus. The next category is the quality of the feces. The last category is the effect a feed has on the biofilter of the filter system.

4. **Planet**

Nowadays, the quality of fish feed is not only determined by the indicators directly related to the fish (Palatability, Performance, Pollution Control). The effect that the feed has on the Planet is becoming increasingly important. It is often seen as a luxury to produce, buy or use sustainable products, but it is becoming a necessity if we want to stabilize the negative effect of our industry on the planet. By quantifying this effect, we are able to work towards more sustainable products.

The best indicators for Planet are the **FIFO factor** (Fish in: Fish out — the amount of wild-caught fish that is needed to produce farmed fish) and **carbon footprint**.

Over the last three years, we made a lot of adjustments in our research facility as well. As the figure below shows, we almost halved the CO_2 emission per trial day.

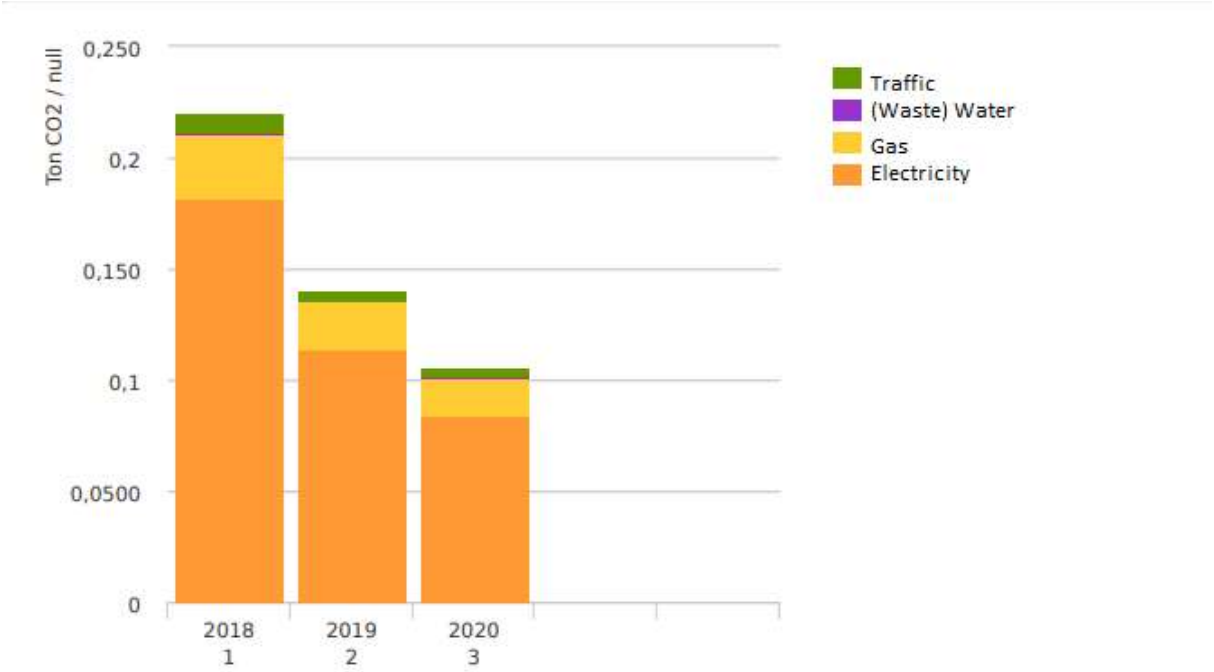


Figure 12. The average carbon emissions per trial day over the last three years

To be able to produce the highest quality fish feed, we need to ensure that all incoming (raw) materials correspond with our expectations and demands.

Supplier assessments and regulations and quality standards

We ensure that all our buying complies with all company policies and government regulations. Before buying, we check that all items are bought in accordance with the overall purchasing policy of the organization and corresponding legislation. We go beyond the obligatory regulations and policies.

Alltech Coppens will engage in ethical trading, emphasizing not only our own efforts but also a committed partnership with suppliers. This ensures top-quality products and services using leading-edge and proprietary technologies. We request the cooperation of our suppliers in applying these details to activities within their company. The suppliers with whom we wish to build stronger partnerships are businesses that comply with laws, regulations and social standards. Alltech Coppens will conduct its procurement based on the below concepts while building mutual trust and high-quality partnerships with suppliers:

- The products delivered to Alltech Coppens comply with EU legislation.
- The products delivered to Alltech Coppens comply with local laws in the country of origin.
- The products delivered to Alltech Coppens meet the quality standards required by the supplier product specification.
- The products delivered to Alltech Coppens are free from genetically modified organisms[1].
- The feed ingredients delivered to Alltech Coppens do not come from fish species that are categorized as vulnerable, endangered or critically endangered according to the IUCN Red List of Threatened Species.
- The packaging of delivered products conforms to EU legislation.
- The working conditions in the country of origin of the products delivered to Alltech Coppens comply with the Ten Principles of the United Nations Global Compact (see: https://www.unglobalcompact.org/what-is-gc/mission/principles).
- The bulk container in which the product is delivered is in a hygienic condition. This means the bulk container is cleaned properly (according to IDTF) after each transport. It is dry and in visibly good condition.
- Alltech Coppens is to be informed immediately if there is any risk reporting of one of the delivered products.

In 2020, 80% of our raw materials were produced within Europe — 30% were coming out of Germany (where our factory stands) and 16% from the Netherlands (where we have our head office). We expect that the amount of local supply will further increase in 2021.

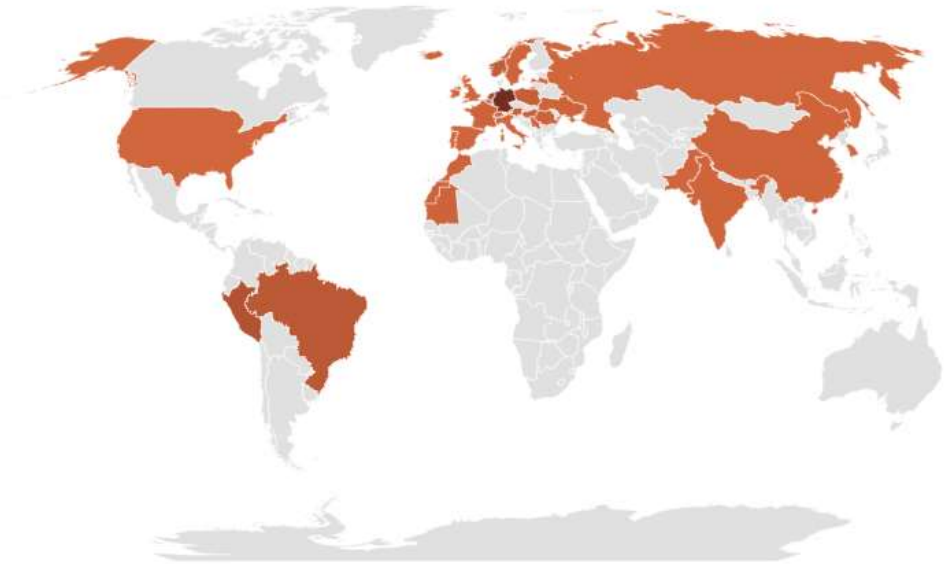


Figure 13: Where do we source our raw materials (2020)

[1] According to directive EG/1829/2003

At Alltech Coppens, we only buy certified soy products, and we are not using any palm or palm-related products. We are working to decrease the usage of whole fish products. In 2020, 100% of our fishmeal and krill meal was certified or produced from trimmings. For fish oil, this was 88%. We changed the sourcing of our fish oils in the last quarter of 2020 with the goal of achieving a 100% score in 2021. Our average fish feed composition for 2020 can be found in the figure below.

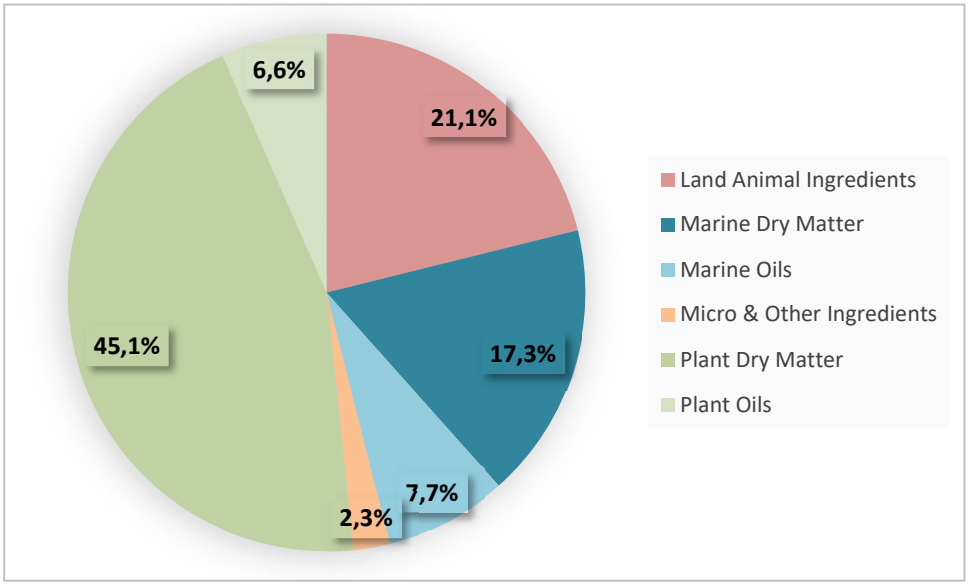


Figure 14: Distribution of the major raw materials of our total feed recipe of 2020

Success stories

Sustainability is integrated into our daily processes and policies. We all have a responsibility toward Earth's future, something that is core to our vision of **Working Together for a Planet of Plenty**. To help create positive change in the world around us, Alltech Coppens embarks on numerous social initiatives involving team members, stakeholders and local communities.

People and Communities

Alltech Coppens Academy

To ensure that all our team members are fully up to date with each of our chosen UN Sustainable Development Goals, Alltech Coppens has set up the Alltech Coppens Academy. This is a series of training sessions in which Alltech Coppens team members exchange knowledge with colleagues from all departments, keeping them informed and opening discussions for further sustainability initiatives.

Bike lease

To support the health and wellbeing of employees, Alltech Coppens has initiated a bike leasing program. Team members can avail of a bicycle suitable for everyday commuting and exercise. This program will contribute toward employee fitness, as well as reducing harmful emissions by taking more cars off the road.

Tafel (the table)/food bank

German charity Tafel is one of the largest volunteer-based organizations in the country. Through sponsorship from supermarkets, businesses, and individuals, Tafel provides groceries and food to those on low or no income, fairly distributing German produce and reducing food waste throughout the country.

Alltech Coppens is working with the Tafel branch situated in the same neighborhood as our factory, helping to provide essential resources and positively contribute to the local community.

Science and innovation

The resources typically used in aquaculture production and research are finite, and their growing scarcity has vast implications for the wider world. Alltech Coppens has put systems in place to source sustainable materials, minimizing our environmental impact now and into the future.

Raw materials

The process of making global aquaculture more sustainable starts by looking at the raw materials we use for feed and fish production. The Alltech Coppens R&D and Purchasing departments evaluate all raw materials used in our aquaculture products, ensuring they are sustainably sourced and ultimately benefit the future of our industry and planet.

Fish trimmings

As the aquaculture industry is still growing, the environmental impacts of the aquafeed industry are expected to increase. Therefore, highlighting where these environmental impacts come from and which ingredients have the highest detrimental impacts on the environment can help us as an aquafeed company to reduce these effects and contribute to a Planet of Plenty™. Using ingredients of marine origin (for example, fishmeal and fish oil) is expected to decrease in the future because marine fish stocks cannot sustain higher fishing pressure. However, replacing fishmeal and fish oil with plant-based ingredients, such as soy protein concentrate and rapeseed oil, causes other environmental impacts, such as land-use change.

Therefore, Alltech Coppens focuses on using marine products that are sourced from trimmings, which are by-products (leftovers) from the preparation of the main product. For finfish, this typically includes skins, heads, and viscera. Upcycling trimmings to produce marine products also fits within the views of a circular food system, as waste is now recycled into valuable nutrients and is considered more sustainable than marine products sourced from forage fisheries. Alltech Coppens has already replaced 60% of our marine products with trimmings and will continue to replace even more in the coming year.

ACAC water cleaning

As the global population gets bigger, water resources around the world are going to get scarcer. With this in mind, we have worked hard to ensure that water used at the Alltech Coppens Aqua Centre is cleaned and re-used, promoting sustainability.

Throughout the ACAC, we utilize recirculating aquaculture systems (RAS), which are specifically designed to use freshwater supplies as economically and efficiently as possible. The water that passes through these systems is filtered multiple times. What emerges is a pristine supply that can then be re-used throughout the system, significantly lessening our burden on global resources.

ACAC fish and feed after trial

At the Alltech Coppens Aqua Centre, we have made it our duty to ensure that nothing goes to waste. Because of this, we have implemented sustainable solutions for what happens to our fish and feed after research trials have been completed. These materials are repurposed throughout our operation, contributing to the further advancement of our research and production.

Sustainable operations

Throughout operations and the supply chain, there are many instances where more sustainable practices can be put in place. By rethinking how we approach use and re-use of materials, Alltech Coppens has taken control of how its production facility impacts the world around us.

Sustainable packaging

As an aquaculture company, we must play our part in feeding the world responsibly and making the benefits of the circular economy for business clear: More effective use of materials means less waste. We are driving our approach through a commitment to reshape our plastic use. Alltech Coppens' objectives are aligned with the long-term aims of Working Together for a Planet of Plenty™, as well as the United Nations Sustainable Development Goals. Sometimes, rethinking what you have always done is the best way to make an impact and recycle effectively.

As part of our commitment, we aim to focus on reducing our use of materials. Alltech Coppens believes rethinking our packaging contributes to the SDGs. We decreased the variation of our standard packaging from 5 to 2 designs and changed wrapping foil thickness. By doing this, we reduce the use of our materials drastically and save 500 kilometers of plastic annually! Our packaging is and will remain 100% recyclable.

We will continue to take steps toward more sustainable aquaculture practices. We are proud of the continuous efforts we are making to reduce our footprint as we amplify our global presence.

Waste management disposal and recycling

Alltech Coppens has an extended waste management system.

Nearly all rework that emerges in our production is re-used in our production. If we cannot re-use it, we sell this feed to a bio-fermenter that produces energy from this feed waste! All packaging waste is sold to third parties and re-used as well. For example, all our broken and old wooden pallets, plastic packaging material, dirty and used big bags and IBC tanks are re-used by third parties. Even the fat and oil leftovers after cleaning our oil tanks are sold and re-used by third parties! Furthermore, we collect empty cartridges and lids. These are donated to a local animal house that exchanges them for money.

This is just a brief outlook on our waste management. One of the most important things we can do to protect our environment is to find ways to reduce waste and move towards a more waste-free lifestyle.

ISO 50001

Alltech Coppens is ISO 50001 certified. This certification is developed for companies like ours that have committed to address their impact, conserve resources and improve the bottom line through efficient energy management. This standard provides us with a practical way to improve our energy use with the help of an energy management system. This ISO standard for energy management systems will help safeguard our future by making a positive difference in the here and now.

ISO 50001
ENERGY MANAGEMENT

Our future

We are inspired by the great challenge the world has presented us — to produce enough safe, nutritious food for all while caring for our animals and sustaining our land, air and water for future generations. Our natural resources may be finite, but human ingenuity is infinite. What started as one company's vision has become a call for collaboration. Our **Planet of Plenty** vision is a vision of promise, possibility and positivity for the future. It is our belief that a world of abundance is achievable but will need all of us working together.

It is a vision that must be led by science, technology and a shared will to make a difference — to plant trees we will never see grow. Sustainability means taking positive action today for the success of tomorrow. It is a pursuit where there is always room for improvements leading to new ideas.

"As a global company spanning the entire food supply chain, we are uniquely positioned to have a positive impact on a diverse range of sectors," said Dr. Mark Lyons, president and CEO of Alltech. "The Global Compact has helped give direction, value and alignment to existing projects and inspiration for new ones. The pages of this report reflect our call to customers and partners to join us in a collaborative effort to adopt new technologies, improve business practices and embrace innovation in order to create a world of abundance."

In addition to our own **Planet of Plenty** vision, Alltech Coppens will follow the European Green Deal in its middle long- and long-term visions.

Figure 15: What is the European Green Deal?

As a result, we created the next goals for ourselves:

- In order to preserve and improve our natural capital, Alltech Coppens has committed to no net loss of green space by ensuring zero deforestation through material procurement and by developing communities filled with greenery.
- Alltech Coppens aims to reduce waste and water consumption by at least 2% every year.
- The Alltech Coppens Aqua Centre must be carbon-neutral by 2025.
- Only use 100% certified marine ingredients or marine ingredients made from trimmings by 2025.
- We aim to have our car fleet free of fossil fuels by 2030.
- We aim to expand and use only renewable energy by 2030.
- We aim to realize zero waste emissions (recycling and reuse) throughout the life cycle of our fish feed by 2030.
- We aim to reduce greenhouse gas emissions in all facilities and all business processes (per sales unit) by 30% by 2030 and by 90% by 2050 from the fiscal 2020 level.
- We aim for zero CO_2 emissions throughout the product life cycle through an uncompromising pursuit of energy saving and utilization of renewable energy in order to achieve a carbon-free society by 2050.

Planet of Plenty™

Dear Reader,

Thank you for taking the time to read this report. We greatly appreciate the time you took to learn more about our vision of a **Planet of Plenty**. If you want to receive more information or have questions, we encourage you to contact us or check out our website and social media pages. Please remember that we all need each other to achieve a **Planet of Plenty**.

"The path to a **Planet of Plenty** *is not a solo journey. We need to work together with all stakeholders, including suppliers, customers, local government and colleagues, to achieve our goals."*

Guido Crolla, Procurement Manager and **Planet of Plenty** team Leader, Alltech Coppens