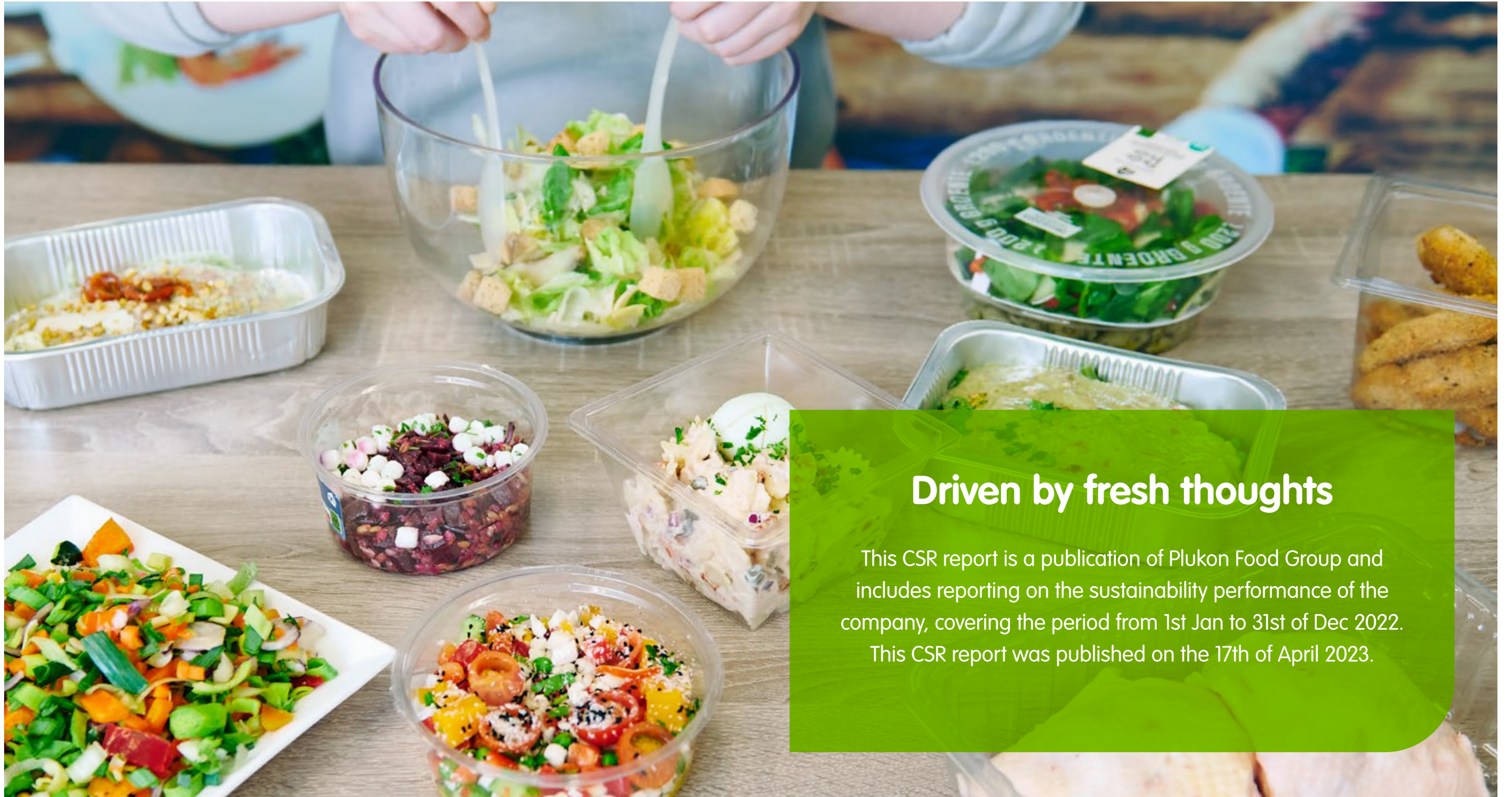


2022

Plukon Food Group
Corporate Social Responsibility Report



**DRIVEN
BY FRESH
THOUGHTS**



Driven by fresh thoughts

This CSR report is a publication of Plukon Food Group and includes reporting on the sustainability performance of the company, covering the period from 1st Jan to 31st of Dec 2022. This CSR report was published on the 17th of April 2023.

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Plukon Food Group produces healthy and varied food for millions of European inhabitants that is affordable, accessible, and easy to prepare. It is our mission to provide responsible food with sustainably produced ingredients and our emphasis is placed on the long-term needs of animals, the environment, and, of course, people. Together with our retail partners and food service customers, we continuously work on innovative food products, creating fresh, healthy, and convenient products.

We are happy to present the new sustainability report to you, with an overview of our steps in 2022 towards more sustainable food production. This is our first sustainability report since 2019. Due to the past eventful years, we were not able to publish our yearly progress on sustainability. Of course, we have not been idle over the last three years. We celebrated the 125th anniversary of Plukon in 2019. And we made progress on all pillars of our sustainability policy; from the gradual introduction of the innovative live bird transport system ATLAS in our slaughterhouses to the major upscaling of animal welfare-friendly housing systems.

Challenges

The past couple of years have been challenging, from the outbreak of COVID-19 to the war in Ukraine. Next to that, avian influenza has a major impact on the poultry sector and will be a challenge in the foreseeing future. In 2020 and 2021, we had to deal with disrupted supply chains as a result of COVID-19. In 2022, Europe was faced with the war in Ukraine, which influenced the world markets on many cost levels such as energy and poultry feed, but also made prices volatile and unpredictable. Together with our long-term suppliers, we could keep our production running and limit high price increases.

Further growth

In these eventful years, we were able to grow as Plukon Food Group. We acquired the Spanish company Grupo VMR in 2020 and are now present in six European countries. Also in 2020, Plukon obtained a majority share in Fresh Care Convenience and acquired CFG Nijkerk, further strengthening our supply to food service. In addition, in 2021 we bought the majority of Optibrut, a hatchery in Germany. In 2022, the remaining shares of Plukon Sieradz in Poland were acquired. Lastly, we have obtained the remaining shares of Fresh Care Convenience in 2022, to further develop our meal concepts and vegetables production. These acquisitions will strengthen the position of Plukon Food Group in poultry, meals and salads.

Sustainability

Plukon Food Group is very committed to doing business responsibly and sustainably. Sustainability is therefore an integral part of the business strategy of Plukon Food Group. To keep our stakeholders informed and to be transparent on our progress, we want to publish a yearly sustainability report and work towards complying with the new European Union legislation on non-financial reporting (CSRD). In 2022, we have performed a materiality analysis resulting in a number of focus topics that will guide our company in terms of sustainability for the coming years.

Next steps

New fresh thoughts are needed to tackle the challenges that are ahead of us, from reducing our climate footprint to sourcing responsibly. Together with our supply chain partners and customers, we work towards improved animal welfare, reduced impact on the environment and providing healthy, fresh and convenient food across Europe. The realisation of an antibiotic-free poultry supply chain in Poland, the transition of Dutch retail to Better Life

label 1 star poultry, the establishment of a slow growing turkey chain in France and the expansion of our vegetarian and vegan products are just a few of our steps in 2022.

Proud

For me personally, an incredible journey of 35 years at Plukon ended on 31 March 2023. It was a privilege and an honour to work for this great company and to both expand and lead Plukon for the past 22 years. I am proud that we have succeeded in embedding sustainability in the organisation and I am confident that Plukon Food Group will continue on this sustainable path.

Peter Poortinga

CEO Plukon Food Group (2001-2023)

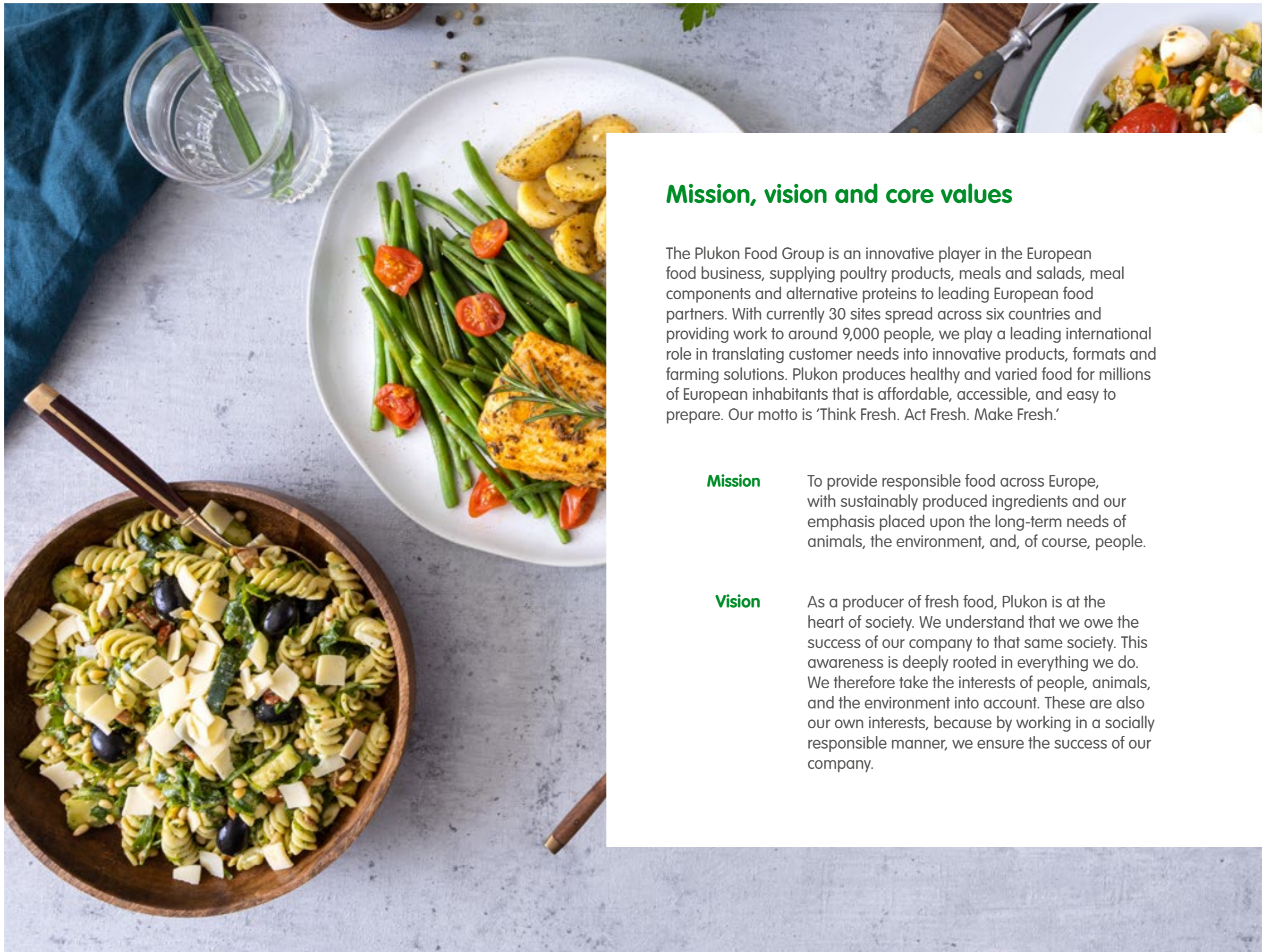


“I am confident that Plukon Food Group will continue on this sustainable path.”

Chapter 1

About Plukon Food Group





Mission, vision and core values

The Plukon Food Group is an innovative player in the European food business, supplying poultry products, meals and salads, meal components and alternative proteins to leading European food partners. With currently 30 sites spread across six countries and providing work to around 9,000 people, we play a leading international role in translating customer needs into innovative products, formats and farming solutions. Plukon produces healthy and varied food for millions of European inhabitants that is affordable, accessible, and easy to prepare. Our motto is 'Think Fresh. Act Fresh. Make Fresh.'

Mission To provide responsible food across Europe, with sustainably produced ingredients and our emphasis placed upon the long-term needs of animals, the environment, and, of course, people.

Vision As a producer of fresh food, Plukon is at the heart of society. We understand that we owe the success of our company to that same society. This awareness is deeply rooted in everything we do. We therefore take the interests of people, animals, and the environment into account. These are also our own interests, because by working in a socially responsible manner, we ensure the success of our company.

Core values

Innovation

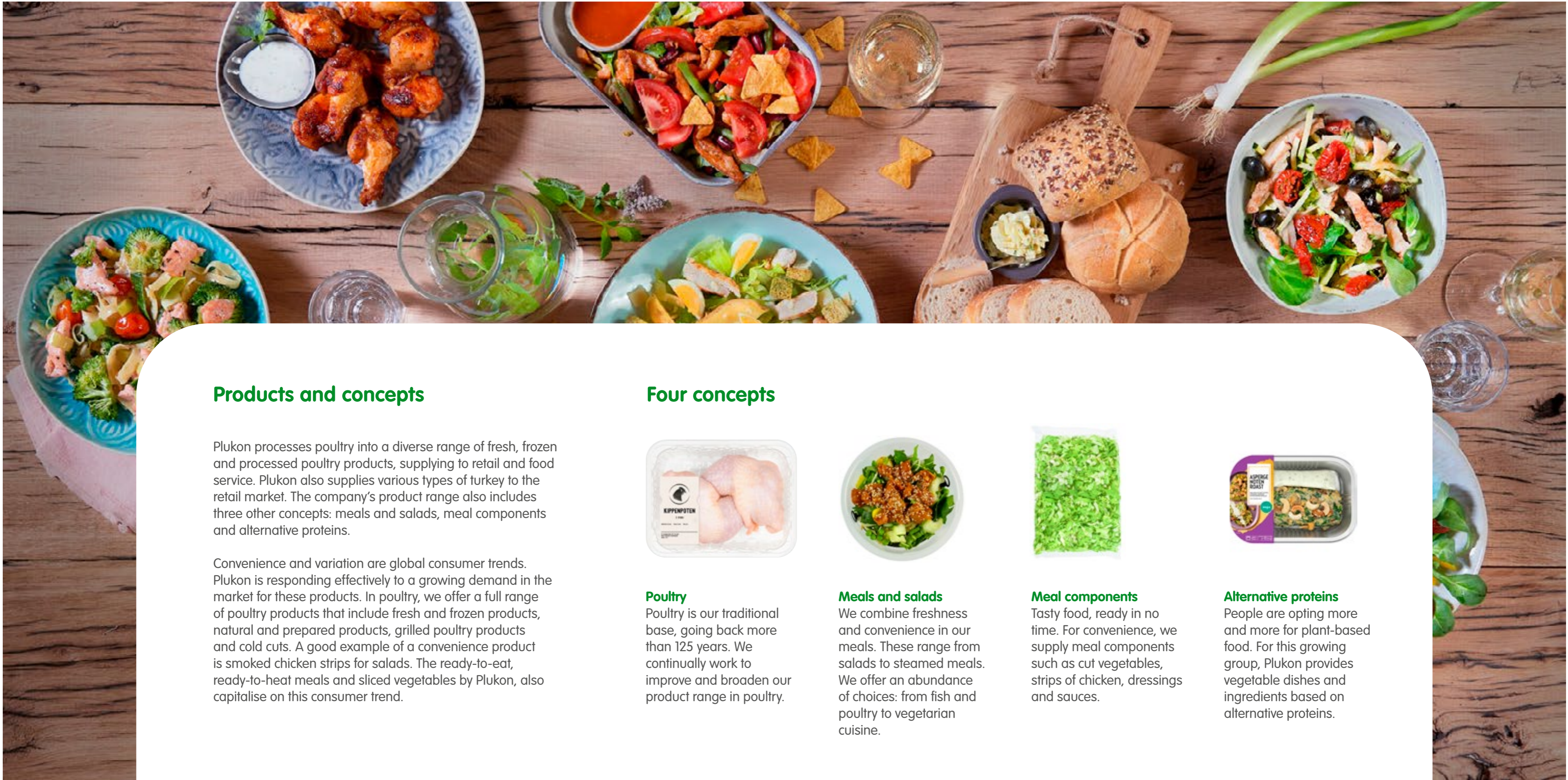
If we are to maintain our success in the future, innovation is vital. We want to lead the way in sustainability, animal welfare, product development, processes and packaging. That is why we cooperate with a large number of institutions and innovators.

Realism

The world of food is changing rapidly. The world's population is growing, natural resources are under pressure, energy and production costs are rising. But Europeans also want to continue eating delicious, healthy and affordable food. All these desires, however sometimes contrary, determine how we work now - and what plans we make for the future.

Responsibility

Being a leading player in the European food market also brings responsibilities. Contributing to a responsible diet is one of them. We want all Europeans to be able to choose a healthy, varied and tasty menu. We also want to ensure that all ingredients and meals are produced responsibly; with respect for people, animals and the environment.



Products and concepts

Plukon processes poultry into a diverse range of fresh, frozen and processed poultry products, supplying to retail and food service. Plukon also supplies various types of turkey to the retail market. The company's product range also includes three other concepts: meals and salads, meal components and alternative proteins.

Convenience and variation are global consumer trends. Plukon is responding effectively to a growing demand in the market for these products. In poultry, we offer a full range of poultry products that include fresh and frozen products, natural and prepared products, grilled poultry products and cold cuts. A good example of a convenience product is smoked chicken strips for salads. The ready-to-eat, ready-to-heat meals and sliced vegetables by Plukon, also capitalise on this consumer trend.

Four concepts



Poultry

Poultry is our traditional base, going back more than 125 years. We continually work to improve and broaden our product range in poultry.



Meals and salads

We combine freshness and convenience in our meals. These range from salads to steamed meals. We offer an abundance of choices: from fish and poultry to vegetarian cuisine.



Meal components

Tasty food, ready in no time. For convenience, we supply meal components such as cut vegetables, strips of chicken, dressings and sauces.



Alternative proteins

People are opting more and more for plant-based food. For this growing group, Plukon provides vegetable dishes and ingredients based on alternative proteins.

Organisation

As an innovative player with four main concepts, we intend to pursue continued growth, in terms of quality, capacity and efficiency. To provide the market with the best possible services, Plukon has opted for a clear specialisation for its various sites.

The company currently has 30 sites in Europe, including 9 in the Netherlands, 6 in Germany, 3 in Belgium, 1 in Poland, 7 in France and 4 in Spain. The headquarter is located in Wezep, the Netherlands. With around 9,000 people working for Plukon Food Group, we realised a turnover of around €2.8 billion in 2022. Plukon Food Group operates poultry slaughterhouses, processing and packaging plants across the Netherlands, Germany, Belgium, France, Poland and Spain. In France, Spain and Germany, we are actively involved in hatcheries. In the Netherlands we operate a meal production plant and two vegetable processing and salad producing plants. In France and Spain, Plukon Food Group also operates poultry feed producing plants.

Governance and changes in the Executive Board

In 2022, the new strategic plan of Plukon Food Group was launched. The new strategy is aimed at strengthening the international customer focus of the company. For this reason, the Supervisory Board and Shareholders appointed Niels van Gestel as Chief Commercial Officer (CCO) with effect from 1 October 2022.

After leading the company for 22 years, Peter Poortinga stepped down as CEO on 31 March 2023. Kees Kraijenoord, the current CFO, has been appointed as successor. As of 1 April 2023, Plukon Food Group has an Executive Board which consists of four Executive Directors: CEO Kees Kraijenoord, CPO Arie Endendijk, CCO Niels van Gestel and the CFO. The new CFO, Johan Roijmans, is appointed and will start on the 1st of July 2023.

The Executive Committee of Plukon Food Group is responsible for the implementation of the business strategy. The committee consists of the Executive Board, a delegation of the Managing Directors of different countries, the Business Unit Directors, the CFO Belgium, France and Spain, the Director of Organization Effectiveness and Development and the Director of Production Policy and Allocation.

The Supervisory Board of Plukon Food Group is responsible for supervising the management and general affairs of the company. It consists of five members and is chaired by Juergen Steinemann.


Net turnover segmented by geographical area

(in 1,000 euros)	2022
The Netherlands	758,056
Germany	588,008
France	527,670
Belgium	266,595
United Kingdom (UK)	253,503
Spain	132,224
Other EU countries	241,063
Other countries	6,067
Total	2,773,186

Company profile and key figures 2022


 **28** sites across Europe
(30 sites in 2023)

 **6** countries
Spain, Belgium, France, Germany, Poland and the Netherlands

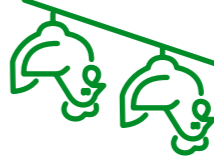
We provide work to around  **9,000** people throughout Europe


 **4** concepts
Poultry, meals and salads, meal components and alternative proteins

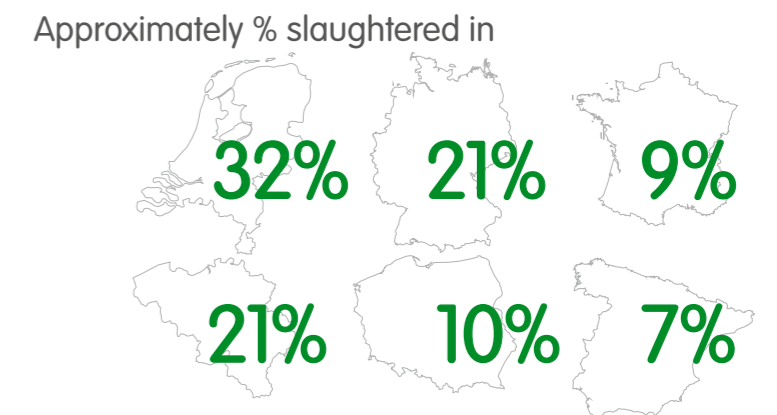
 **381 tons**
of vegetables per week

 **9.2 tons**
of alternative proteins per week

 **515,500**
meals & salads per week

 Approximately **8.9** million broilers are supplied and slaughtered per week.

 Throughout the year, **1,136** million kilograms of live weight of broilers are supplied and slaughtered (+ 0.03% compared to 2021).



Products mainly sold in **North-West Europe**

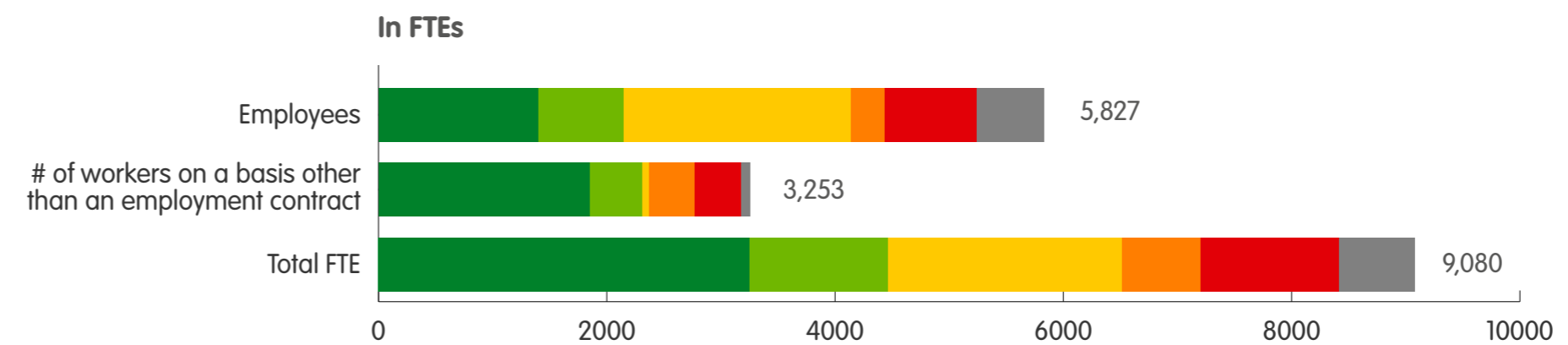
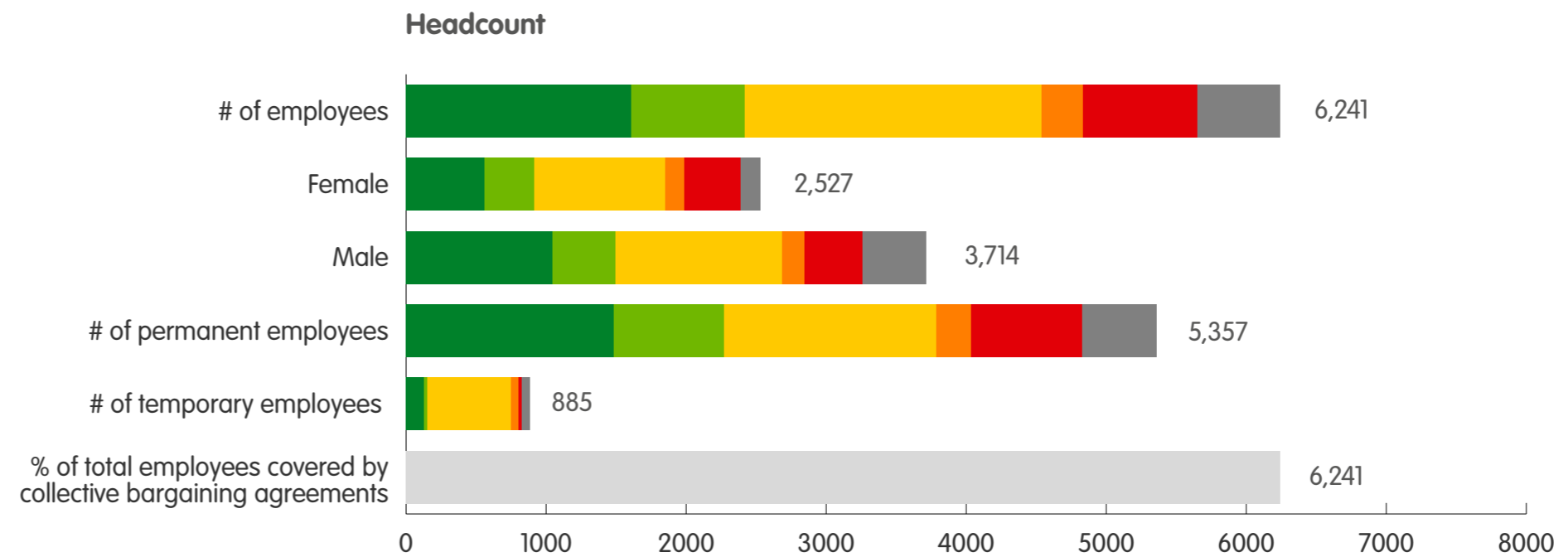
 **2.8 billion** turnover



Employees

Our employees are at the heart of the success of Plukon Food Group. We attach great importance to being an attractive employer. We also consider honesty and transparency important. We offer employees the opportunity to develop in an open and informal corporate culture. Our aim is to fill at least 75% of the management positions with internal candidates.

Number of employees in 2022



Explanation

Employees have a Plukon Food Group contract and are on the payroll of the company. In addition, people work for Plukon Food Group on a basis other than an employment contract e.g., via an employment agency.

Summary

Employees

40% female
60% male

Contracts

86% permanent
14% temporary

- The Netherlands
- Belgium
- Germany
- Poland
- France
- Spain
- Total

Acquisitions 2020-2022

Plukon Food Group aims to further expand its market share through organic growth and acquisitions. Our core values and striking a good balance between the needs of the public, the environment, and profitability are always the foundation.

In 2020, 2021 and 2022, Plukon has acquired different companies to further improve the poultry and vegetable supply chains. At the end of 2022, Plukon also acquired the remaining 40% of shares of Plukon Sieradz in Poland, thereby fully integrating it into the Plukon Food Group.



Fresh Care Convenience

With the acquisition of 51% of the shares in Fresh Care Convenience in Dronten in February 2020, Plukon Food Group substantially invested in expertise in vegetable supply chains and vegetable processing. The two companies pool their resources for the purpose of sourcing ingredients and managing existing logistics channels and available production capacity. In addition, the partners can improve quality assurance levels for vegetables, along with vegetable processing techniques. In December 2022, the other 49% of shares was acquired by Plukon.



Grupo VMR

The Spanish poultry company Grupo VMR, acquired in January 2020, is specialised in supplying a premium assortment of poultry products to the local retail, wholesale, and food service market.

The company operates three brands. Freshly produced poultry products are sold under the brand Gallus Gallus. The brand En u tris represents many varied, processed, and precooked poultry products that are easy to prepare and available in different formats. Frozen poultry products are sold under the Frigallus brand, mainly for food service, food industry and export.

The fully integrated Grupo VMR has its own slaughterhouse, which is supplied exclusively from its own poultry chain consisting of a feed factory, hatchery, and poultry processing facility. The hatchery, as well as three rearing farms and six breeding farms for the production of hatching eggs, belong to Ibergallus. This is a 50/50 joint venture with the Portuguese Grupo Valouro.



CFG Nijkerk

Plukon's position in the European market was further strengthened by the acquisition of CFG Nijkerk in October 2020, a major player in the production and processing of chicken products for the food service channel. Plukon and CFG are both companies with a strong focus on quality and performance. With the acquisition of CFG, Plukon can further strengthen its supply of food services.



Optibrut

The German hatchery Optibrut has been an important strategic partner of Plukon since 2017. In January 2021, Plukon acquired 51% of the shares of the company. Optibrut supplies day-old chicks, mainly for the Dutch and German markets, both to poultry farmers who supply Plukon and to third parties. The use of early feeding and the control of the entire parent stock chain for production of breeding eggs, partly in-house, are important reasons for the acquisition. The acquisition is in line with Plukon's ambition to invest further in the quality of its poultry chains.

Sites of Plukon Food Group

The Netherlands

1. Plukon Wezep - Head office
2. Plukon Goor
3. Plukon Blokker
4. Plukon Dedemsvaart
5. Plukon Ommel/Plukon Processing Ommel
6. Plukon Convenience Dronten
7. Plukon CFG Nijkerk
8. J.A. Ter Maten*
9. J.A. Ter Maten*

Germany

10. Plukon Visbek
11. Plukon Brenz
12. Plukon Gudensberg
13. Plukon Döbeln
14. Plukon Storkow
15. Optibrut

Belgium

16. Plukon Maasmechelen
17. Plukon Mouscron
18. Plukon Convenience Olen

France

19. DUC Chailley
20. DUC Saint-Bauzély
21. DUC Gouaix
22. Voléfi Riec sur Belon
23. DUC Montmeyran
24. DUC Charolles
25. DUC Crest

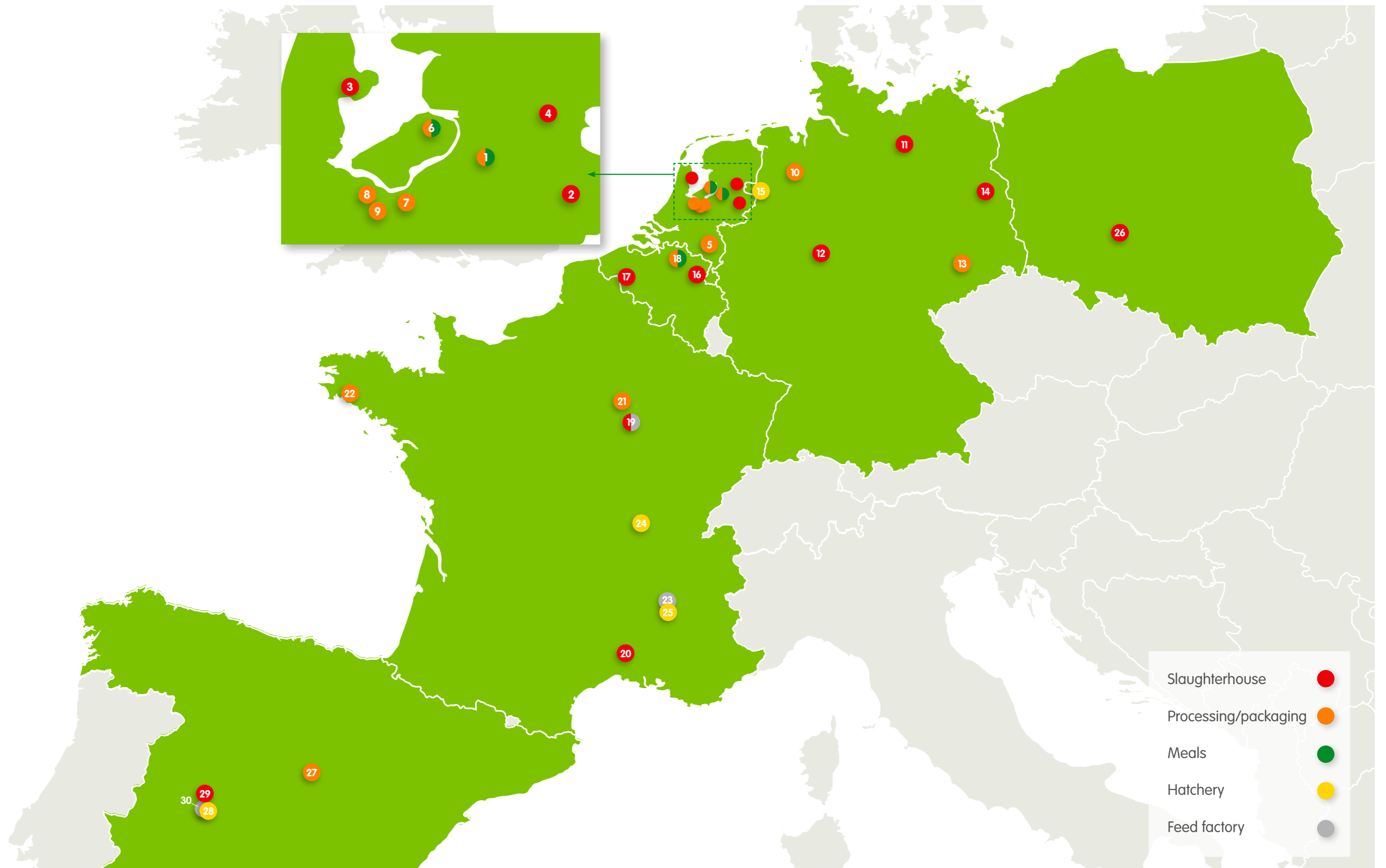
Poland

26. Plukon Sieradz

Spain

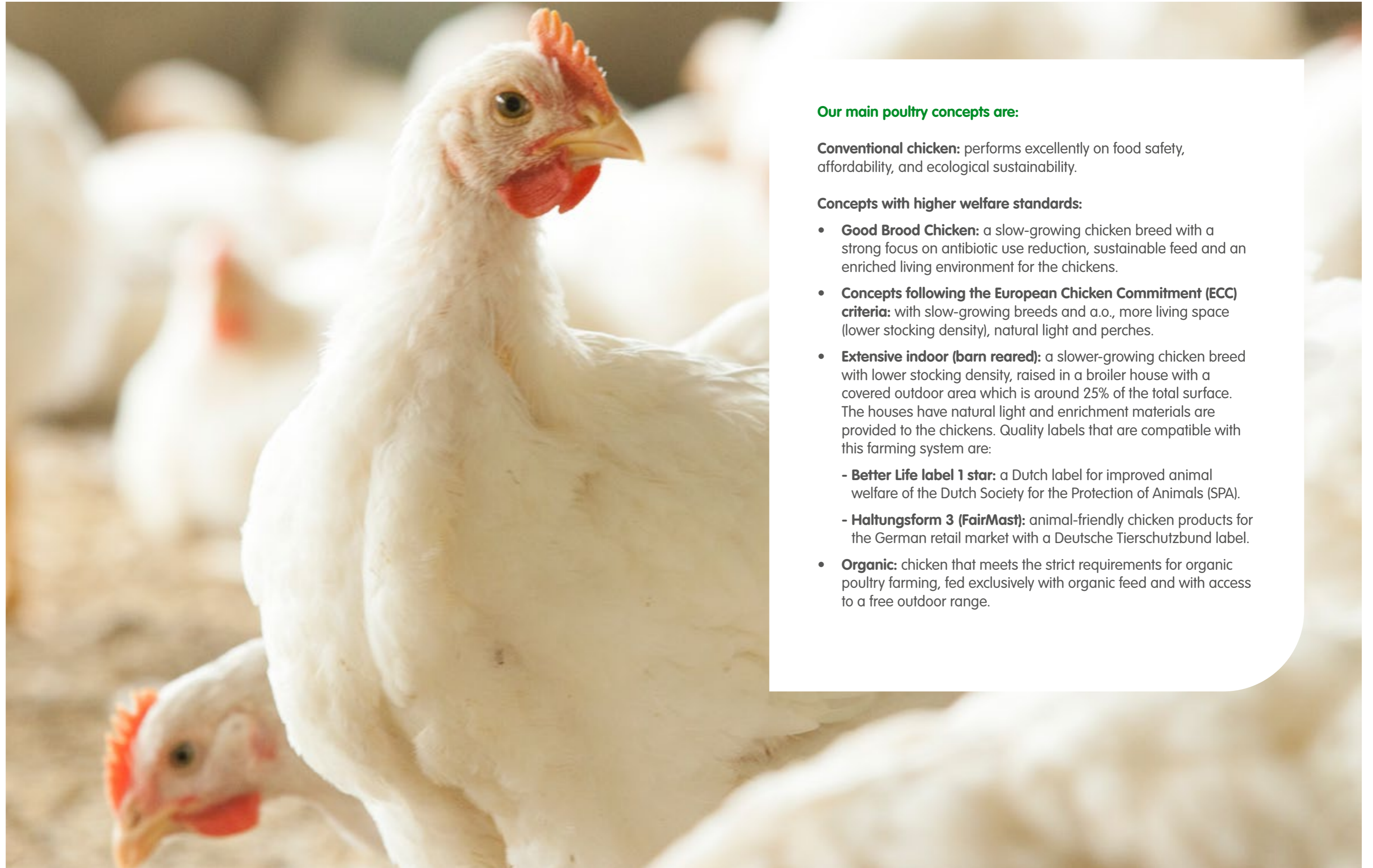
27. Disavasa
28. Ibergallus
29. Veravic
30. Veravic

*These locations were acquired in 2023.



Farming concepts and brands

Developing and maintaining customer-specific concepts with a focus on efficient production, animal health and animal welfare has been a strategic priority for Plukon Food Group for many years. Plukon liaises closely with the poultry farmers who supply to the company and the success of these individual poultry farms contributes to the success and continuity of the overall supply chain. Jointly with the poultry farmers, we are working on innovations related to animal welfare and animal health.



Our main poultry concepts are:

Conventional chicken: performs excellently on food safety, affordability, and ecological sustainability.

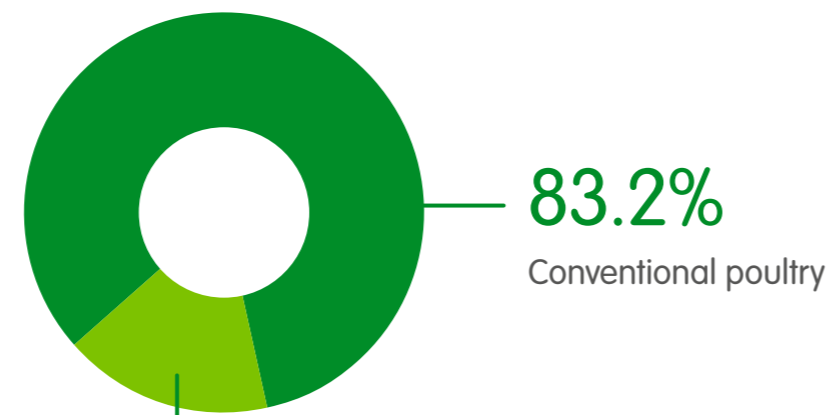
Concepts with higher welfare standards:

- **Good Brood Chicken:** a slow-growing chicken breed with a strong focus on antibiotic use reduction, sustainable feed and an enriched living environment for the chickens.
- **Concepts following the European Chicken Commitment (ECC) criteria:** with slow-growing breeds and a.o., more living space (lower stocking density), natural light and perches.
- **Extensive indoor (barn reared):** a slower-growing chicken breed with lower stocking density, raised in a broiler house with a covered outdoor area which is around 25% of the total surface. The houses have natural light and enrichment materials are provided to the chickens. Quality labels that are compatible with this farming system are:
 - **Better Life label 1 star:** a Dutch label for improved animal welfare of the Dutch Society for the Protection of Animals (SPA).
 - **Haltungsform 3 (FairMast):** animal-friendly chicken products for the German retail market with a Deutsche Tierschutzbund label.
- **Organic:** chicken that meets the strict requirements for organic poultry farming, fed exclusively with organic feed and with access to a free outdoor range.



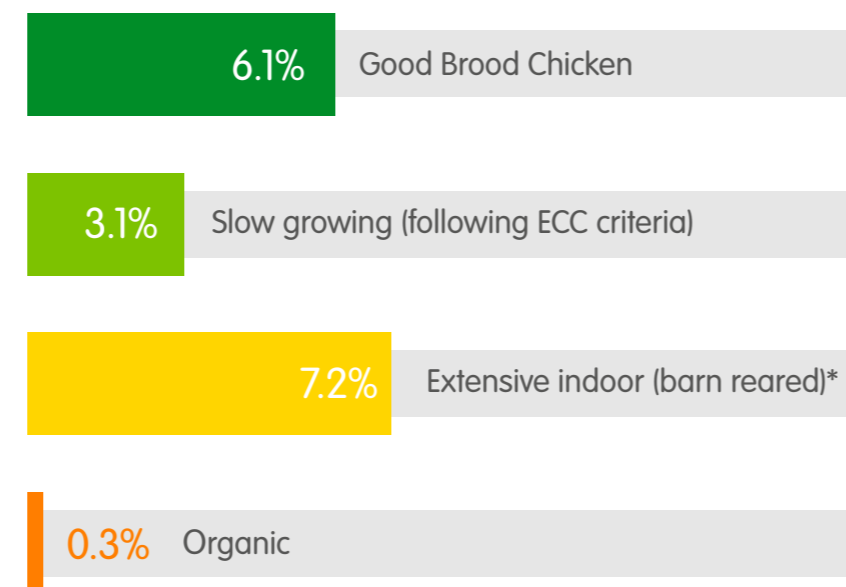
Farming concepts

Volume of poultry slaughtered and processed in 2022



16.8%


Improved animal welfare concepts:





*6.2% Better Life label 1 star in the Netherlands, and 1.0% Haltungform 3 (FairMast) in Germany.


Brands


Plukon's poultry and turkey products are often sold under retailers' private labels. In addition, Plukon markets a number of strong international brands:


 One of the most widely known brands for food companies and the hospitality industry.


 Ready-to-heat meals, sauces and products based on poultry, meat and fish.


 Fresh and frozen poultry for the German retail and food service market.

 Animal-friendly chicken products for the German retail market with a label from the Deutsche Tierschutzbund.

 Varied and certified chicken and turkey product range for the French retail market.

 Premium assortment of fresh chicken products for local retail, wholesale and food service markets in Spain.

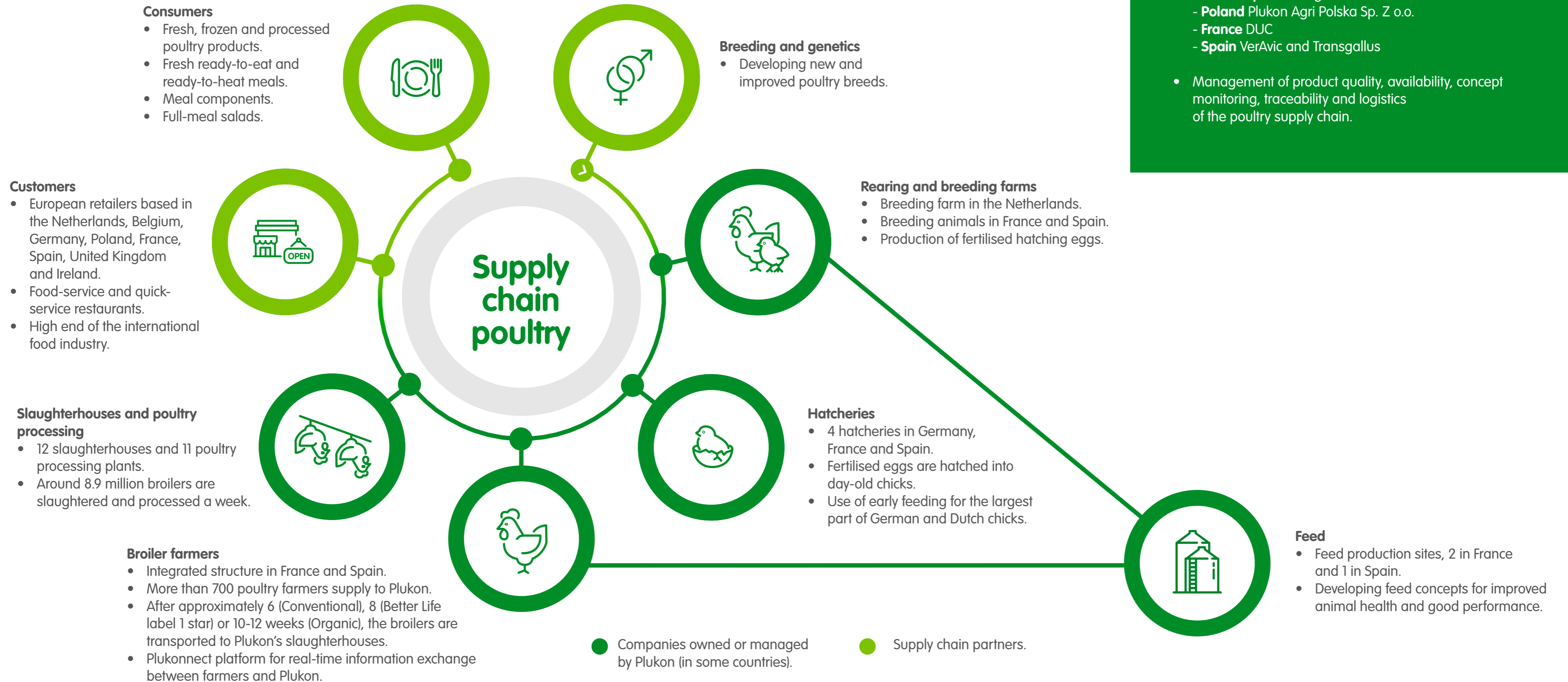
 Frozen chicken products, mainly for food service, food industry and export.

 Refrigerated ready-to-eat and ready-to-heat chicken products.

The meal components, alternative proteins and meals and salads are all sold under retailers private labels.

Supply chain poultry

A chain of companies is involved in poultry production, with each link having its own specialised role and where the partners engage in cooperation and innovation. Plukon's impact and influence are limited not just to its own organisation. It contributes to improving sustainable practices in the supply chain by working in conjunction with all partners in the chain.



Supply chain vegetables

Plukon started producing meals with vegetable components in 1999. The amount of vegetables that are processed daily has increased considerably since then. During the reconstruction of the production location in Wezep after a fire in 2017, this location was further equipped for vegetable cutting and processing. In 2020, an acquisition took place of Fresh Care Convenience in Dronten, a production location equipped for vegetable processing. Plukon will work on further organising the vegetable supply chains in the coming years.



Chapter 2

Highlights



Highlights 2022

Sustainable highlights

100% of Dutch **20%** of German poultry farmers are registered on our online platform **Plukonnect**.



All our sites are IFS or BRC certified, based on the **HACCP** method.

IFS/BRC CERTIFIED

quality

Phased implementation of a document management system for **quality** and food **safety** management for 10 locations.



free of antibiotics

Increase in antibiotic-free production in all concepts: from 33% in conventional and 88% in FairMast to 96-100% in Better Life label 1 star, Slow growing/ECC, Good Brood Chicken and Organic.

Start of European aWISH-project where novel sensors will be developed and tested to measure **animal welfare** indicators.



new vega(n) products

in the vegetarian and vegan product range in Belgium and the Netherlands.

Introduction of salads with 250g vegetables so that consumers get the recommended amount of vegetables in one go.



1.2MW

Installation of photovoltaic plants at ten Spanish facilities. A total of 1.2MW can be generated by these ten plants, which **reduces** our energy **consumption** and our direct emissions.

LCA MODEL

Development of an (auditable) LCA model for one of our farming concepts. The LCA model allows us to calculate the CO₂-footprint of the farming concept.

Highlights 2022

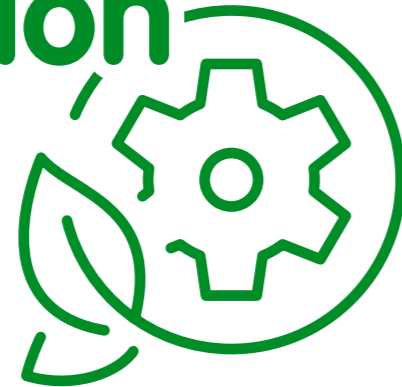
Sustainable highlights

95,000k of plastic waste reduced annually

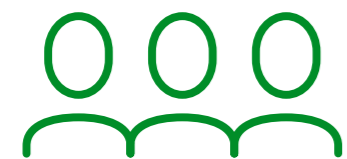
Complete transformation of the packaging of chicken bone products from tray to bag which we supply to a Dutch retailer. This saves up to 95,000 kilos of plastic on an annual basis.

automation

The use of automation and robotics is more and more introduced into our sites.



62% of the management positions were filled in by internal candidates.



trainees

Five trainees entered the Plukon Traineeship.



A symposium for poultry farmers, business partners and our stakeholders to share knowledge and expertise and make joint progress.



New materiality analysis performed to identify the most relevant impacts of Plukon on environmental, social, and governmental topics.

General highlights

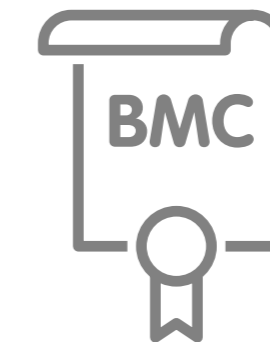
40%

Plukon acquired the remaining 40% of shares of Plukon Sieradz in Poland.



49%

Plukon acquired the remaining 49% shares of Fresh Care Convenience in Dronten.

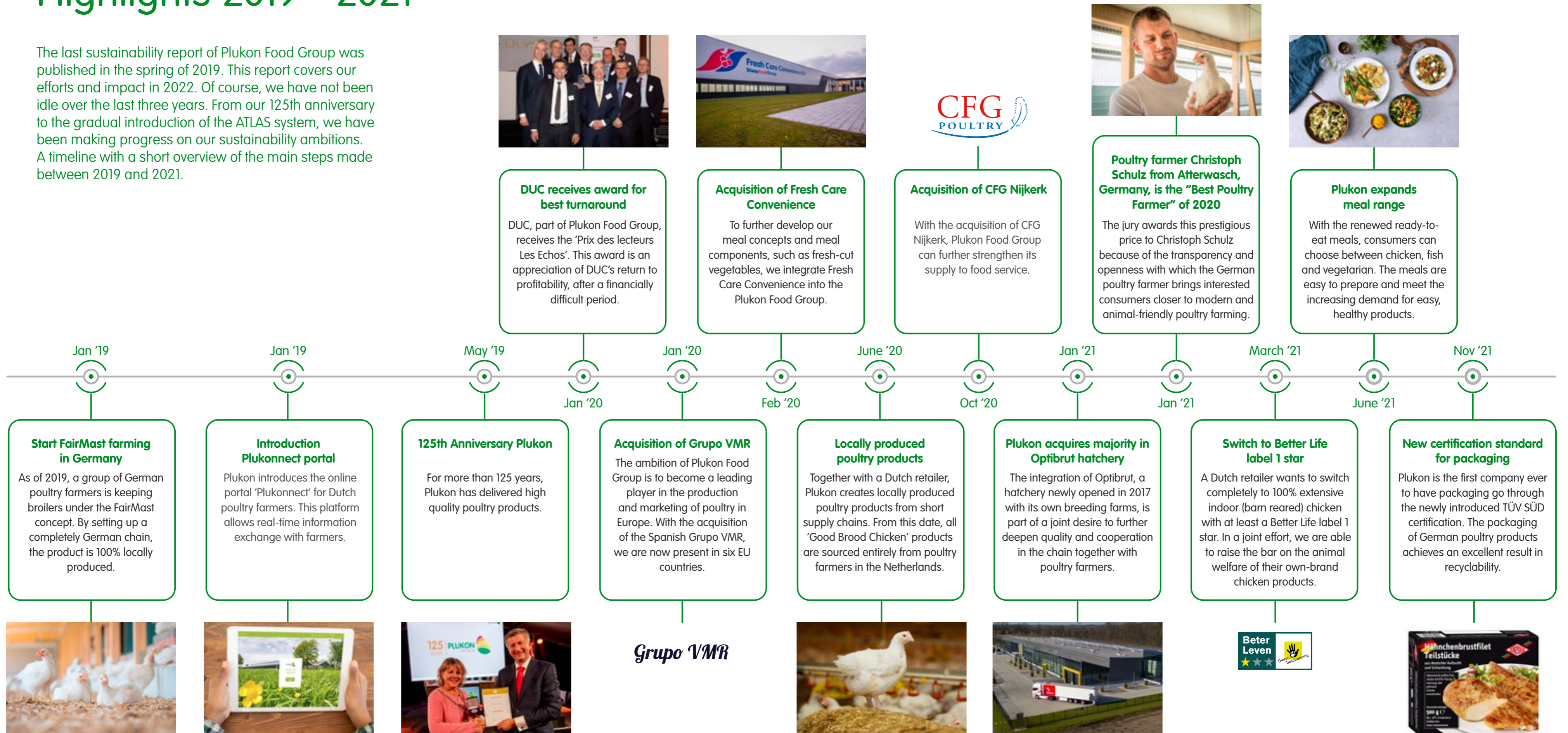


award

Plukon in the Netherlands received the Best Managed Company (BMC) award and was awarded an Excellence award in the 'Strategy' category.

Highlights 2019 - 2021

The last sustainability report of Plukon Food Group was published in the spring of 2019. This report covers our efforts and impact in 2022. Of course, we have not been idle over the last three years. From our 125th anniversary to the gradual introduction of the ATLAS system, we have been making progress on our sustainability ambitions. A timeline with a short overview of the main steps made between 2019 and 2021.



Chapter 3

Sustainability



CSR policy

Plukon Food Group is very committed to doing business in a responsible and sustainable way. We are driven by our dedication to promoting the welfare of people and animals and protecting their future. Corporate Social Responsibility (CSR) is an integral part of the business strategy of Plukon Food Group. Our mission is to provide responsible food across Europe, with sustainably produced ingredients and with emphasis on the long-term needs of animals, the environment, and, of course, people. We develop solutions that meet the demands of retailers, the food-service industry and today's and tomorrow's consumers. In doing so, it is crucial for us to strike the right balance between the needs of society, the environment, and profitability.

Plukon Food Group has identified five pillars for our sustainability agenda: Healthy and responsibly produced products, Food safety and transparency, Animal health and welfare, Circularity and climate, and People and society. Guided by these pillars, we intend to further strengthen and develop our leading role in sustainable production. Sustainability presents new opportunities and challenges for all players across the food and poultry supply chain. Plukon encourages its supply chain partners to actively respond to relevant market trends and collaborate on a healthy poultry supply chain and responsibly produced food.

In the previous sustainability report, the themes of Animal health and Animal welfare were spread across two pillars. Because of the overlap of the two themes and an integrated approach, we merged both into the pillar of Animal health and welfare. Climate was also added to the former Circular and efficient business operations pillar and renamed Circularity and climate. The Human resources and society pillar was renamed People and society.

Renewed materiality analysis

In 2022, Plukon Food Group renewed its materiality analysis to identify the most relevant impacts of Plukon on the economy, environment, and people, including impacts on their human rights. Together with a selection of our internal and external stakeholders, we determined the most important impact areas for Plukon. A total of 114 internal and external stakeholders were invited to rank 24 topics, in terms of the impact Plukon Food Group might have on the topic. A total of 84 people responded, a good response of 74%. In a validation session with the Executive Committee, the analysis was discussed, and the final selection of the material topics was made and confirmed.

For the five sustainability pillars, we defined eleven new or updated material topics and set strategic KPIs:

- **Updated material topics:** Contribute to a healthy diet and food security, Food safety, Animal health and welfare, Green innovations and innovative farming concepts, Training and career development, and Employment practices including occupational health and safety.
- **New material topics:** Using responsibly produced raw materials, Supply chain traceability, Responsible use of veterinary antibiotics, Direct and indirect emissions of greenhouse gases, and Emissions of greenhouse gases in the value chain.

See [Appendix 1](#) for a more in-depth overview of the materiality analysis and the materiality matrix.

Governance of sustainability

The implementation of Plukon's sustainability agenda is integrated into the business operations of the departments involved, including Purchasing, Logistics, Human Resources, Quality, different business managers of the Plukon Food Group countries and Plant managers. The Executive Committee of Plukon Food Group is responsible for coordinating the development of the sustainability policy. At the beginning of 2023, a dedicated manager of Corporate Sustainability was appointed.

The Board is ultimately responsible for sustainability and managing the organisation's impacts on the economy, environment, and people. Twice a year, sustainability is on the agenda of the international management meeting. The Board is responsible for coordinating both strategic and everyday choices, with a good balance between the needs of the public, the environment, and profitability. From 2022 onwards, Plukon Food Group is planning to report on its progress every year in its CSR Report. The data for monitoring progress on sustainability goals is collected on a monthly or four-weekly basis, verified for reliability, and subjected to analysis.

The five pillars of our sustainability agenda

-  Healthy and responsibly produced products
-  Food safety and transparency
-  Animal health and welfare
-  Circularity and climate
-  People and society

“Because of our size,
we can make a real
impact.”



New Manager Corporate Sustainability

Lotte Kroeze is the newly appointed Manager Corporate Sustainability at Plukon Food Group. She has a master's degree in Animal Sciences from Wageningen University & Research and started working for Plukon in February 2015 in the Agribusiness team. In 2018 she became Business Development Manager Agri, working on various research and innovation projects in the poultry supply chains. From January 2023, she is the dedicated Manager Corporate Sustainability.

“In my day-to-day work, the challenge is to shape both Plukon's own sustainability ambitions and to fulfil the requirements of our customers and societies, and translate these into policy, guidelines or concrete actions. This varies from small visible steps to major changes. Both in our own production facilities and in the supply chains.”

Short and long term strategy

“My goal for 2023 is to develop a short and long term strategy for our sustainability ambitions. For example, we are working towards a significant carbon footprint reduction in 2030. That seems like a relatively long term, but requires short-term plans and actions. To do this, we first need to properly map our footprint of internal and external operations, the so-called scope 1, 2 and 3 emissions. The next step is to make targeted reduction plans. We always

take these steps in consultation with suppliers, customers and stakeholders.”

Make a significant contribution

“My ambition is to have poultry production chains in five years' time that are both efficient, fairly circular, and animal welfare-friendly. So, producing poultry in a socially and environmentally responsible way. This obviously applies not only to our chicken products, but also to our meals, vegetables and alternative proteins. We want to offer the most responsible and healthy products for a large group of consumers in Europe. In addition, we definitely want to be a good and pleasant employer, and contribute to sustainable employment practices.

If I can make a significant contribution to all these aspects in the next five years, I will be very honoured and satisfied. Because of our size, we can make a real impact for our production chains and people. This certainly gives me a lot of motivation every day!”

Lotte Kroeze
Manager Corporate Sustainability at Plukon Food Group

Putting CSR into practice

Policy commitments

Plukon Food Group commits to implementing the United Nations Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines. From 2023 onwards, we will develop a due diligence policy and implement it in our value chains. We will involve potentially affected stakeholders in both the development of the due diligence process and in resolving the negative impacts identified.

Plukon already complies with the ETI Base Code. This code is founded on the conventions of the International Labour Organisation (ILO) and is an internationally recognised code of labour practice.

Whistleblowing policy

In 2016, Plukon Food Group implemented the whistle-blower scheme (grievance mechanism) in the Netherlands. In subsequent years, the scheme was rolled out to all countries with Plukon operations. Within this scheme, it is possible to report malpractices or other non responsible business conduct. These are violations of laws or regulations or causing a situation that puts staff or third parties at risk. Examples include food fraud, embezzlement, corruption, illegal price fixing, etc.

The main purpose of the whistle-blower scheme is to ensure that in this way the management of Plukon Food Group becomes aware of dangerous or illegal activities that pose risks to the company, employees, the environment or society. In doing so, employees and external (chain) partners should be able to report responsibly, without consequences for their position.

Content-wise, the regulations are similar in different countries with Plukon operations, with some deviations due to differences in national law. The whistle-blower regulations can be found on all language versions of our [website](#) and on the intranet of the company. In addition to the integral version of the regulation on the website, flyers on the whistle-blowers' regulation are posted at each location of Plukon Food Group. In 2022, no notifications were made.

Confidential counsellors are appointed in all business units of Plukon Food Group. They serve as the contact person for anyone who has been confronted with unwanted behaviour or unequal treatment in their work environment.

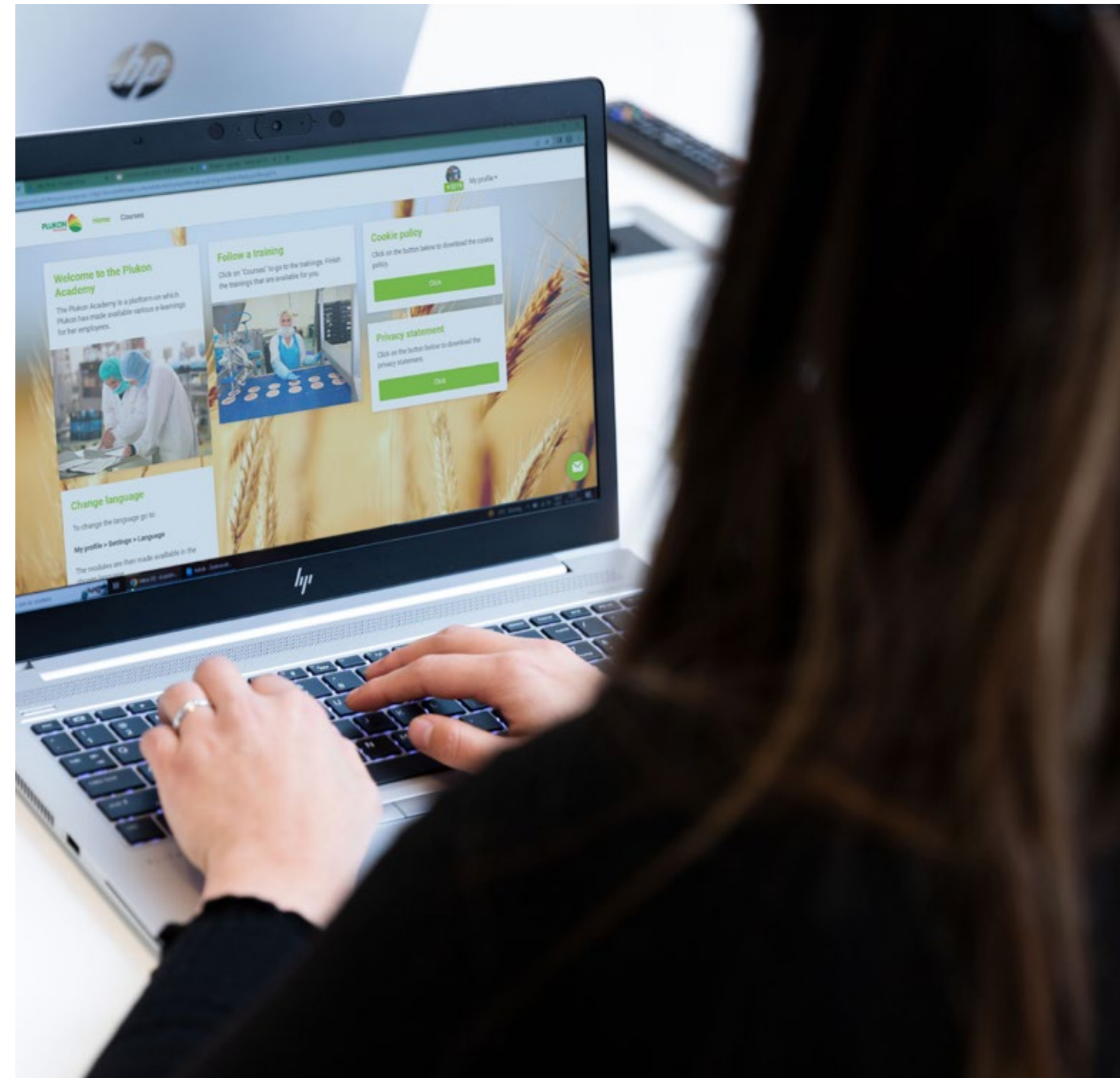
Code of conduct

A Code of Conduct is currently being developed within Plukon Food Group. It is expected to be published in 2023. Plukon France (DUC) has a specific Code of Conduct for covering anti-corruption.

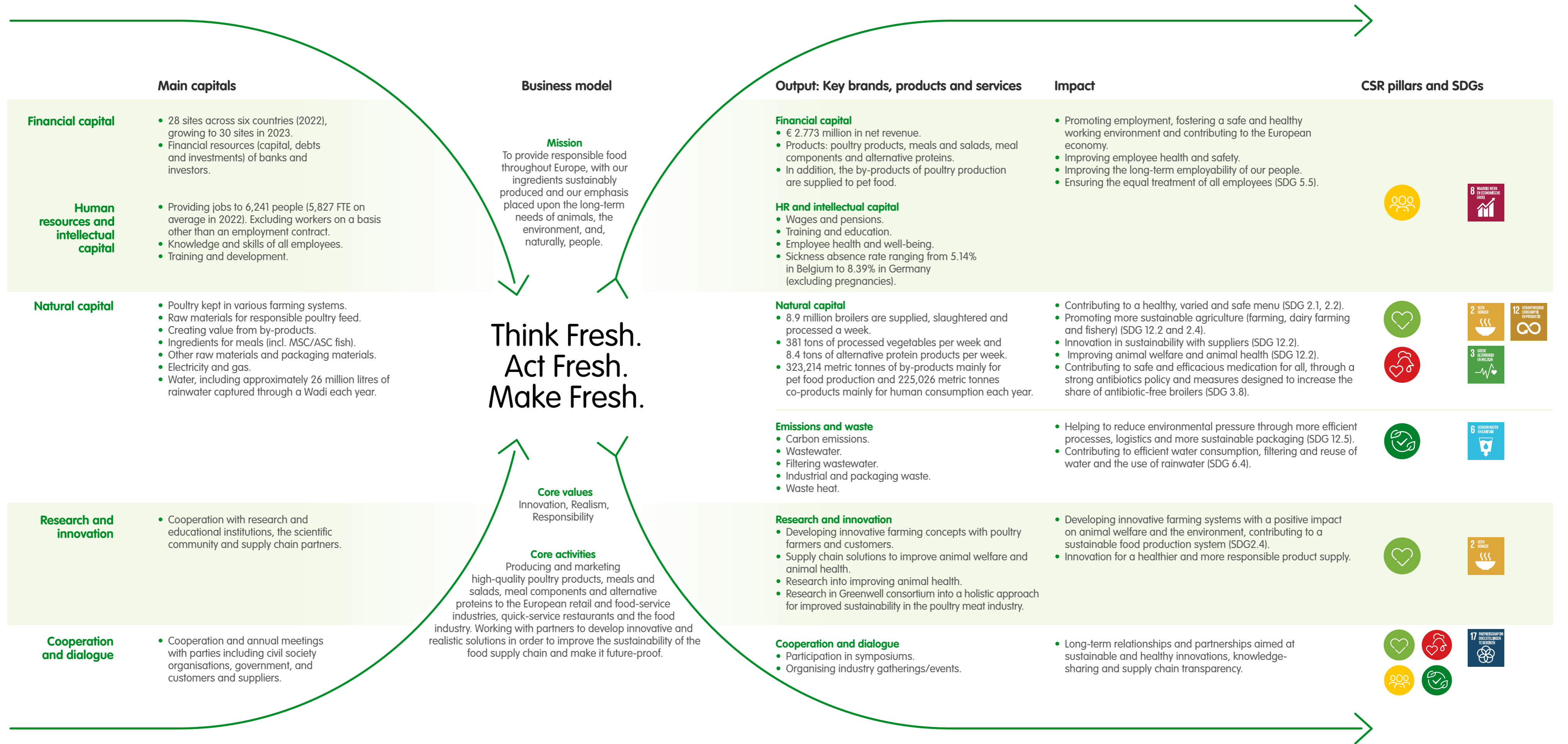
All suppliers of Plukon Food Group are subject to the Supplier Code and are required to comply with the BSCI Code of Conduct, which sets out standards of compliance with Dutch and international laws and regulations regarding employment, discrimination, environment, safety and health.

E-learning

Plukon Food Group undertakes several actions to encourage and support employees in doing business responsibly. For production employees, e-learning courses are available on food safety and animal welfare. The location introduction training provides employees with necessary information about hygiene and safety procedures at a specific location. Employees in the procurement and supply chain teams are required to follow e-learning courses on competition law. All employees in the offices are required to follow e-learning courses on cyber security.



Value creation model of Plukon Food Group



Chapter 4

Healthy and responsibly produced products





A growing number of consumers are looking for fresh, healthy and easy-to-prepare food. The origin and impact of food on the environment and climate play an increasingly important role in the food choices made by consumers. Poultry and vegetables are part of a healthy diet. Unprocessed poultry is low in fat and rich in protein and has a relatively low climate footprint. Vegetables are low-calorie and a good source of vitamins, minerals and dietary fibres. To create fresh meal solutions and products that suit the consumers' wishes, Plukon Food Group keeps improving the recipes of poultry products and meals and salads concepts, and we choose responsibly sourced raw materials without compromising on our quality.

Contribute to a healthy diet and food security

Nutri-Score

To keep improving the content of our products and meal concepts, Plukon uses Nutri-Score. Nutri-Score is a European front-of-pack nutritional label, which shows a colour scale combined with a letter from A to E. A product with an A contains a number of favourable properties (e.g., protein, fibres), and few negative properties (e.g., salt, saturated fat). Currently, the algorithm of Nutri-Score is being revised, allowing for an even more accurate calculation of scores for products. Our aim is to (re)calculate the Nutri-Score for our product range in 2023, using the new algorithm once it is published. When we have the new Nutri-Score for our product range, we will be able to set a goal for product improvement using the Nutri-Score.

Sugar, salt, and fat reduction

Plukon is committed to reducing the sugar, salt and fat content in processed poultry products, meal and salad concepts. Whilst maintaining high-quality and optimal flavour, we gradually reduce sugar, salt, and fat content.

Alternative proteins

People are opting more and more for plant-based food. The volume of the European market for meat substitutes is growing by $\pm 20\%$ per year¹. For this growing group, Plukon provides vegetable dishes and ingredients based on

alternative proteins. In the Netherlands, we have created vegetable pies since 2008, which gives an alternative to consumers for the traditional meat pie. In Belgium, we have launched a vegetarian cheese schnitzel.

During Christmas, many consumers want to enjoy a meal with meat or poultry. Together with a retailer, we have created a special product range which provides great plant-based alternatives for beef wellington or chicken fillet. The vegetarian and vegan product range consists for example of no-beef wellington, cauliflower steak, veggie casserole and plant-based 'chicken breast', vegan 'chicken tenderloins' and croute. By creating these innovative products, consumers can choose a meatless Christmas dinner. In the coming years, we will continue with the development of products based on alternative proteins.

¹Bron: Statista.com www.statista.com/outlook/cmo/food/meat/meat-substitutes/europe



Using responsibly produced raw materials

Responsibly produced poultry feed

High-quality, safe feed that perfectly meets the nutritional needs of poultry at each stage of life, contributes to the health of animals. Broilers are given a mix of maize, soy, wheat, various vitamins, oils, fats and other ingredients. Soybean meal is one of the richest sources of protein in animal feed and is easily digested by poultry. The feed for broilers comprises an average of 20 to 25% soy pellets and other food industry residual streams.

Plukon works together with supply chain partners and the animal feed industry to make the raw materials for poultry feed more sustainable. The production of soy for animal feed is associated with deforestation, land conversion and soil depletion. Therefore, Plukon increases the share of certified soy together with customers, feed producers and poultry farmers, to ensure responsible feed.

In each of the Plukon countries, this is done in its own way. For Germany for example, we have GMO-free programmes. For other countries we have concepts based on certified soy. To guarantee high criteria on nature conservation, biodiversity, agricultural practices, employment conditions and respect for local land rights, Plukon sources certified soy with either the Round Table on Responsible Soy (RTRS; book and claim) or ProTerra Foundation certification. Palm (oil) products are used relatively little in poultry feed. However, the policy is to use only Roundtable on Sustainable Palm Oil (RSPO) certified palm products. It is our ambition, together with our customers, to further increase the use of sustainable soy in the poultry chains in the coming years.

Deforestation-free supply chains

Together with our supply chain partners, we work on responsible sourcing of raw materials. Plukon wants to contribute to the sustainable production of these raw

materials. In 2024, an EU-directive will be published on deforestation-free supply chains. Plukon does not wait until the directive has been adopted, but already sources its raw materials (when possible) using approved certification programmes.

Together with our suppliers, we are currently identifying the next steps we can take to source raw materials that do not contribute to deforestation. The RSPO, RTRS and ProTerra certification schemes include criteria on deforestation. We are also cooperating with the Sustainable Farming Assurance Programme (SFAP) who supports companies in the feed and food supply chain to source responsibly produced commodities that are free from deforestation and land-conversion and have a low carbon footprint. Our goal is to ensure deforestation-free supply chains of raw materials for the poultry feed supplied by Plukon, compliant with (EU) legislation.

Certifications

Raw material (% of total sourced raw material)	2022
Soy certified (mainly RTRS and SFAP non conversion)	41%
Soy non-GMO (ProTerra)	27%
Palm oil (RSPO)	100%
Organic feed (for organic poultry)	100%
Fish (ASC/MSC)	100%

Ingredients for meals

In all ready-to-eat and ready-to-heat meal concepts with fish, Plukon uses only ASC or MSC-certified fish. This fish is farmed or caught sustainably, with a focus on preserving the natural living environment of fish.



Organic poultry in Belgium

Consumers are increasingly aware of the positive aspects of organic products. With the launch of the European Green Deal and the Farm to Fork strategy, the ambition is to increase the production and consumption of organic products on the EU level. Plukon has been operating an organic poultry supply chain since 2005. In the Belgian Ardennes, a large number of poultry farmers keep broilers that meet the strict requirements of organic poultry farming, including 100% organic feed.

“To be a sustainable business, innovation is key! As an innovation team, we are the consumers’ eyes, ears and mouths. We translate market trends into new products and innovations in our current product range. To be ready for the future, tapping into new markets is essential to ensure a steady and sustainable growth of Plukon also the coming years. Innovation allows us to create new products and improve existing products. Drivers for innovation at Plukon are health, sustainability, and convenience, thereby helping consumers to choose alternatives.”

From adding new products to innovating existing products

“At Plukon, we work with four concepts: poultry, meals and salads, alternative proteins, and meal components. In all these concepts, innovation plays an important role. It is my job as an innovation director to create new products in these four existing concepts and keep improving our current products in terms of taste, healthiness, and packaging.”

“To be ready for the future, tapping into new markets is essential to ensure a steady and sustainable growth of Plukon also the coming years.”

Collaboration is key

“Since we operate in six different countries, we also serve six different markets, although all European. Each country has its innovation team that translates the local consumer trends into products. In the Netherlands, we have a great long-term relationship with retailers. The long-term relationship allows for great collaboration when it comes to innovation. This also helps create new products and launch new ideas for product adjustments in the Dutch market. In the Netherlands, we can pilot certain innovations and share the knowledge and experience with the other innovation teams.”

Poultry and beyond

“The increasing demand for alternative proteins also guides our innovation process. In the coming years, we aim to further increase our alternative protein products while maintaining high-quality poultry. We want to give consumers the opportunity to choose between high-quality protein alternatives so that they know how to consume those. We will not only create vegan schnitzels, but we will further develop fresh products that are easy to prepare. Alternative proteins will be our second largest concept in the coming years, where health, sustainability, and convenience are key drivers for product innovation.”

Gerda Zijlstra

Innovation Director at Plukon Food Group



“We keep improving our products in terms of taste, healthiness, and packaging.”



Healthy and responsibly produced products

Material topics and goals

Material topics	KPI	Goal	2022
Using responsibly produced raw materials	Use of certified sustainable raw materials (RTRS soy, ProTerra soy, RSPO palm).	Ensure deforestation-free supply chains of raw materials for the chickens supplied by Plukon, compliant with (EU) legislation.	29% RTRS certified soy, 23% ProTerra certified soy. All palm RSPO certified.
Contribute to a healthy diet and food security	To be decided.	Our aim is to (re)calculate the Nutri-Score for our product range in 2023, using the new algorithm once it is published. Subsequently, we will set a goal for product improvement using the Nutri-Score.	Not yet available.

The market demands fresh, healthy, and convenient food. The environmental impact of food plays an increasing role in the choices consumers make.

Chapter 5

Food safety and
transparency





Food safety and transparency



Retail customers, industrial buyers and consumers must be able to rely on Plukon's products being fresh, safe and of exceptional quality. Food safety is one of our key priorities. All of Plukon's products satisfy the highest quality and food safety standards. Through our own lab and supply chain quality system, we check product quality to ensure a safe product for our customers. With the introduction of Plukonnect, we exchange real-time information with poultry farmers, and with the use of approved certifications we improve the traceability of the raw materials used in our supply chains.

Food safety

Our products are consumed each day by a large number of European consumers. Plukon's products meet strict food safety requirements and national and European legislation. Using recognised quality standards (i.e., HACCP, IFS and BRC), we ensure that these rules are embedded at all levels of the organisation and supply chain.

We apply the IFS and/or BRC certification, based on the HACCP method, for all our sites. We use an internal quality assurance system. This combined with requirements for the surroundings, product, process, and staff guarantees safe food for our customers. Our goal is to certify all our production sites with internationally recognised food safety standards (such as IFS and BRC). Now all our sites are certified accordingly. In acquisition processes, sites are checked for compliance with national and international laws and regulations. If these sites do not yet meet our food safety requirements, they will be brought in line with IFS and/or BRC.

Quality standards

- ✓ **Global Food Safety Initiative (GFSI):** an international retail sector initiative for global collaboration to advance food safety. GFSI does not provide food safety certification, but recognises a number of certification programmes that meet the GFSI Benchmarking Requirements. Examples are the International Food Standard (IFS) and the British Retail Consortium Global Standard for Food Safety (BRC). All locations of Plukon Food Group are GFSI certified as a mark of the highest standards in food safety.
- ✓ **HACCP:** a system designed to identify critical (or essential) points which affect the safety of the end products (i.e., poultry products and meals).
- ✓ **National standards:** IKB Chicken in the Netherlands, Belplume in Belgium, QS in Germany, and the Welfare Quality Certification in Spain.



New document management system

In 2022, we implemented a document management system that combines all aspects of quality and food safety management into one system. The digital system contains all handbooks, procedures and working instructions on food safety quality, sustainability and integrity. It helps to keep an overview and make the right information available to the right person at the right time in one place. The goal of this system is the standardisation of document management and transparency of our quality systems. It is based upon an automated workflow for the approval and verification of new, current or updated manuals. The system allows for easier access to all documents, nationally and internationally, and a thorough knowledge exchange. The system is currently implemented in ten locations of Plukon Food Group.

“Sharing knowledge with my colleagues and setting up innovative programs with the external stakeholders, allows us to gain the latest insights regarding food quality.”
- Kitty Vaesen, Quality Manager Plukon Maasmechelen

Research by in-house laboratory

The accredited Plukon Food Group Laboratory conducts microbiological, chemical and shelf-life research for the Plukon Food Group companies, hatcheries and poultry farmers in Poland, Spain, Belgium, Germany, France and the Netherlands. Our laboratory plays an important role in preventing, monitoring or eradicating key pathogens such as campylobacter, salmonella and listeria. The laboratory is also essential for successful product innovation. At Plukon, we want to keep innovating with new fresh products, whilst always guaranteeing food safety and high-quality. Our lab checks whether the product innovation meets all food safety criteria, shelf-life requirements and flavour retention.

Listeria

Listeria is a family of bacteria that can multiply at temperatures from +2 to 42°C. One of the species can cause listeriosis, which can lead to serious sickness and hospitalisation. Preparing food at temperatures higher than 70°C kills the bacteria. Listeria control is extremely important for all ready-to-eat products (eaten without heating).

For the locations where we produce ready-to-eat meals and salads (Dronten and Wezep) we executed listeria studies and tested the growth potential of listeria under laboratory conditions. Plukon Food Group is one of the first companies in the Netherlands to execute the so-called challenge tests for ready-to-eat meals under accreditation. The Netherlands Food and Consumer Product Safety Authority (NVWA) approved our listeria studies.

Creating awareness

To create a food safety ‘culture’ throughout all levels of the organisation, we pay regular attention to food safety in our e-learning programmes. In these programmes, colleagues receive location-specific training about safety and hygiene procedures. At some locations, courses have been added, for example when working with certain labels or allergens to meet the highest quality standards of our various customers. Next to these location-specific training, there are separate modules that cover topics required to perform specific tasks. One of these modules covers HACCP. These e-learning are completed during work and can be repeated periodically. Next to that, we use our online portal Plukonnect to exchange information with poultry farmers on food safety. This helps to keep food safety top of mind, not only by our colleagues but also in our supply chains.

Sharing knowledge allows us to gain the latest insights regarding food quality

“As veterinarian and head of quality of the Belgian part of Plukon Food Group, one of my main responsibilities is to create food products that are safe. With handling poultry and creating poultry products, producing safe and healthy food is of utmost importance.”

Stimulate ‘Food Safety Culture’

“Food safety involves a lot of aspects of the poultry chain, from handling the broilers to hygiene at our plants, but also the packaging of our products. So, it affects everyone at the processing locations. To guarantee that every person knows what food safety entails at Plukon Food Group, we stimulate a so-called ‘Food Safety Culture’. By providing training to our employees and communicating via the TV screens in locations, each and everyone who handles our products are aware of what food safety is and the necessity of it.”

Share knowledge

“Communication between different (inter)national departments of Plukon Food Group is very easy and accessible, which allows for an efficient exchange of knowledge and experience. If for example a pilot or innovation starts at one of our sites, the knowledge we gain is shared easily with our other sites.”

Continuous improvement

“Although we are used to safe food products in Europe, this is an aspect that requires continuous improvement. We see quite some trends that are hard to match with guaranteeing quality products. For example, more and more consumers want products that are free of E-numbers. However, if we would remove these harmless additives, the shelf life of our

products would decrease drastically. Leading to food waste and unhappy consumers. Our job is to find the optimal combination of the consumers’ wishes whilst maintaining excellent quality.”

Learn more and innovate where possible

“Recently we have introduced a new quality management system, which allows for an even better information exchange and quality monitoring. We are keen to learn more and innovate where possible. Collaborating with research institutes creates new projects to improve quality and food safety. Sharing knowledge with my colleagues and setting up innovative programs with external stakeholders, allows us to gain the latest insights regarding food quality and put those insights into practice in our production plants.”

Kitty Vaesen

Quality Manager at Plukon Maasmechelen



“Although we are used to safe food products in Europe, this is an aspect that requires continuous improvement.”

Supply chain traceability

Traceability and insight into the supply chain

Plukon is very familiar with the poultry supply chain and the supply chains for its ingredients for fresh ready meals, salads, and meal components. Our direct relations and the quality assurance system for all links in the supply chain, contribute to this. Plukon conducts audits to monitor the performance of poultry farmers based on criteria such as animal welfare and health. Plukon knows the feed suppliers and their suppliers, as a result of which the raw materials used in the production of the feed can sometimes even be directly traced back to the farmland. This applies for example to the ProTerra-certified non-GMO soy. With increased traceability of our materials, we are able to better identify and prevent potential negative impacts linked to our products.

Plukonnect

To further increase the traceability in our supply chains, Plukon has developed an online supplier portal called Plukonnect. The portal allows for real-time information exchange from the poultry farmers to Plukon and vice versa. For example, information on the registered certifications on animal welfare. Next to that, the technical performance of poultry farms and information that is important for food safety, like used vaccinations or medication is registered. The portal allows for direct communication between Plukon and its suppliers and increases the traceability of our products.

The portal has been developed between 2018 and 2020. Since then, we have gradually introduced Plukonnect to poultry farmers. To create awareness about the portal and to provide guidance on how to use it, training courses are available for colleagues. We also support farmers who have questions about the portal. Whilst developing Plukonnect, existing farm management systems and databases were used as a basis. In this way, Plukonnect has a recognisable

interface for the farmers, which makes the use of the portal easier. The alignment of existing systems with Plukonnect, optimises information exchange between the Plukonnect portal and supply chain partners.

We have started with the introduction of Plukonnect in the Netherlands. We are happy that all our Dutch poultry farmers are registered on Plukonnect and actively use the portal to exchange information. After the successful introduction in the Netherlands, we will introduce the portal in the other countries where Plukon operates. Starting with Germany (2023), followed by Belgium (2024) and France (2025), and thereafter Poland and Spain. The poultry farmers that are registered and using the Plukonnect platform are positive about the portal. It provides real-time insights into their data and documents all in one place.





Food safety and transparency

Material topics and goals

Material topics	KPI	Goal	2022	2021	2020	2019
Food safety	% of production volume from sites certified to internationally recognized food safety standards (IFS/BRC).	100% of our production sites are certified with internationally recognized food safety standards (IFS/BRC).	100% of our production sites.	100% of our production sites.	100% of our production sites.	100% of our production sites.
Supply chain traceability	% of poultry farmers registered onto Plukonnect.	A phased introduction of Plukonnect for all poultry farmers per country Plukon operates in. <ul style="list-style-type: none"> • By 2022 all Dutch poultry farmers, • By 2023 all German poultry farmers, • By 2024 all Belgium poultry farmers, • By 2025 all French poultry farmers, are registered on Plukonnect. 	100% of Dutch poultry farmers and 20% of German poultry farmers are registered on Plukonnect.	100% of Dutch poultry farmers.	90% of Dutch poultry farmers.	65% of Dutch poultry farmers.

Chapter 6

Animal health
and welfare





Healthy broilers are the basis for a healthy poultry sector and a responsible production of food. Animal welfare can be further improved through innovation and collaboration within the industry. Plukon Food Group, being a leader in the industry, has pioneered a number of innovative farming concepts in recent years. By innovation, we are able to improve animal health which results in the reduction of the use of antibiotics and better animal welfare.

Green innovations and innovative farming concepts

Innovative farming concepts enhance animal health and reduce negative impacts on the environment. The concepts are based on advanced standards for animal welfare, such as criteria for age at slaughter, growth rate, space to roam around and daylight. Animal health and welfare are key for Plukon. The development of innovative farming concepts that improve animal health and welfare is and has been an important spearhead for us. We want to achieve a yearly increase of 2.5% growth in volume of chickens kept as part of a concept based on improved animal welfare.

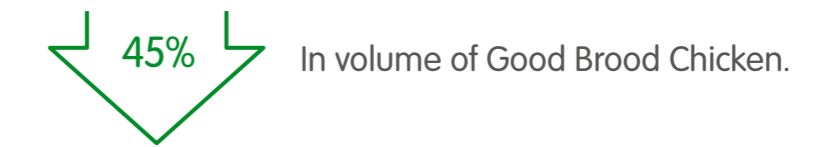
To achieve our ambition, Plukon is actively involved in research and innovation in the field of improved animal welfare and animal health. In 2022, we were involved in a

field trial on in-ovo vaccinations to induce early post-hatch protection against diseases.. In close collaboration with our customers, we develop and implement welfare-friendly concepts. We conducted trials in 2022 at a poultry farm with the use of plateaus in the broiler house (elevations) as additional enrichment material. Animal health and welfare are also major topics in conversations with chain partners and NGOs.

	2022	2021	2020	2019
Good Brood Chicken	-45%	-11%	5%	-7%
Slow Growing/European Chicken Commitment	16%	-3%	-17%	3%
Extensive indoor (barn reared): Better Life label 1 star	119%	30%	4%	-14%
Extensive indoor (barn reared): Haltungsform 3 (FairMast)*	1,309%	499%	127%	-
Organic	11%	12%	-3%	6%
% of growth in volume of chickens kept as part of a concept based on improved animal welfare compared to previous year	-1.4%	0.5%	6.2%	-5.9%
% slow growing of total volume	16.8%	17.2%	17.5%	17.9%

* Compared to 2019

Comparison of 2022 versus 2018



In 2018, around 20% of the total volume came from different improved animal welfare concepts. In 2022, this percentage was around 17%. This slight decrease is partly due to a slower introduction of improved animal welfare outside the Netherlands, in combination with an increase in total volume due to acquisitions. Next to that, our aim is to market all chicken parts (e.g., legs, wings, breast and thigh fillet) of the chicken in our core markets in Europe. Product development has focused strongly on this in recent years. This results in an increased use of all chicken parts. In the case of equal volumes, this means a lower number of animals required. Like other starting concepts, FairMast grew substantially in the first few years. Because the starting point was zero, the percentages give a somewhat distorted picture.

“When the entire supplying sector has switched by the end of 2023, 65% of broilers in the Netherlands will be produced under the animal-friendly conditions of the Better Life label 1 star.”



‘Right from the start, Plukon is dedicated to the Better Life label’

“We have a long-standing relationship with Plukon Food Group. The Dutch Society for the Protection of Animals initiated the Better Life label scheme in 2007. The broiler value chain was the first chain to be covered by the scheme. When Flandrex SA joined the Plukon Food Group, Plukon became involved in this first pilot. Right from the start, Plukon is dedicated to the Better Life label. Thanks to their efforts and retail and marketing knowledge, the Better Life label got a kickstart in the Netherlands.

Improved animal welfare

We welcome the Dutch retailers’ move to the Better Life label 1 star. The slower-growing breed is more active and healthier, and the animals require virtually no antibiotics. The animals live up to 56 days in a barn with lower stocking density (25 kg/m²), straw, hay or lucerne bales and scattered grain, daylight and a covered outdoor run. Throughout the entire chain, the focus is on improved animal welfare. Transport times are capped, slaughter is by the most suitable method considering animal welfare, with two- or multi-stage gas stunning, and the female parent stock animals are no longer chronically hungry. The label is also well-controlled with annual farm audits.

Guaranteed animal-friendly

When the entire poultry retail sector has switched by the end of 2023, 65% of broilers in the Netherlands will be produced under the more animal-friendly conditions of the Better Life label 1 star. When buying fresh poultry meat in the supermarket, Dutch consumers will then buy guaranteed more animal-friendly food. We urge the food service, food industry and quick-service restaurants to follow retail in this.

Integrally sustainable perspective

In North-West Europe, we see a growing movement towards improved animal welfare. Adopting an integrally sustainable perspective on animal production chains is important, with a good balance between climate, environment and animal welfare. Animal welfare should not come second behind the climate objectives of companies.

Roll out the same approach

The broiler sector differs from other animal sectors because it works in closed supply chains. Collaborating with poultry farmers through Plukon is of added value for us. Plukon supports the farmers and matches supply and demand very well. A short and closed chain is positive to make the concept successful and thus improve animal welfare. At the farm level, Plukon can take further steps on egg hatching, using hatch covers with infrared heating and lighting, and upright catching. We encourage Plukon to roll out the same approach to improved animal welfare in the food service, food industry, quick-service restaurants and other European countries.

Marijke de Jong-Timmerman
Programme manager Better Life label

Dilemmas in developing new concepts

Since 2018, we have been part of the Greenwell consortium. This is a public-private project, including partners such as Wageningen University & Research and the world's leading genetics company Aviagen. The consortium investigates important dilemmas that arise whilst developing concepts for improved animal welfare. Improved animal welfare concepts often use slow(er) growing breeds. These breeds live longer and therefore consume more feed. However, as the feed composition differs (for example, lower protein content or less soy) the carbon footprint of the feed can be equal or even lower compared to the fast-growing breeds. Learn more about the results of the Greenwell consortium in the chapter Circularity and Climate on [page 48](#).

New concepts in Europe

Together with our supply chain partners, from retail to poultry farmers, we have improved or extended existing concepts and introduced new ones.

Transition to Better Life label 1 star

Together with one of our Dutch retail partners and poultry farmers, we have transitioned fully from the slower-growing Good Brood Chicken concept to Better Life label 1 star certification for all fresh poultry. In 2023, the transition towards Better Life label 1 star will be completed with another Dutch retailer. By the end of 2023, all fresh chicken sold in Dutch supermarket chains will at least carry the Better Life label 1 star certification. This is a major transition for Plukon and the poultry sector in the Netherlands and a big step towards improved animal welfare.

FairMast for German retail

The FairMast concept sets higher standards for animal welfare compared to conventional chicken. The FairMast is a more animal-friendly poultry farming system developed by Plukon Food Group together with international animal welfare partners back in 2016. The FairMast chickens are hatched, bred, and slaughtered in Germany, thereby creating a short value chain. FairMast corresponds to level 3 Haltungsform, the animal welfare standard used in German retail. Level 3 requires among other things a lower stocking density (compared to conventional poultry farming systems), access to a covered outdoor run, pecking objects and non-GMO feed during breeding. The introduction of FairMast in German retail is a great step towards improving animal welfare and providing high-quality products for consumers.

Start with slow growing turkey chain

Plukon has launched its own slow growing turkey concept in France. From the first week of October 2022, turkey products are sourced from this chain. The slower-growing turkeys are of the Caringa Cartier breed, the well-known 'bronze' turkeys with dark plumage and excellent meat quality. The turkeys are kept at a stocking density of maximum 36 kg per m² for hens and 40 kg per m² for males. The slaughter age is at least 98 days for hens, males must be at least 126 days old at the time of slaughter. The house has daylight and a covered outdoor run. The animals have enrichment material available in the form of straw bales and pecking objects. Plukon collaborates with around 25 turkey farmers, relatively small-scale family farms and an extensive type of farming. The turkeys are slaughtered in France and processed at the Plukon location in Riec, in the Brittany region.

Meeting the European Chicken Commitment

In both Belgium and France, we have created a supply chain for a slower-growing breed, which meets the criteria of the European Chicken Commitment (ECC). Together with our retail partners and farmers, we realised an improved animal welfare for our broilers. Using a slower-growing breed, placing pecking objects and a lower stocking density, contribute to improved animal welfare in this concept. The use of antibiotics has been significantly reduced, 98-99% of the flocks are raised free of antibiotics. For these concepts in Belgium and France, we work together with local chain partners and poultry farmers. The Belgian and French origin is also visible on the packaging of the product on the shop shelves.

[▶ Learn more \(in Dutch\)](#)

	2022	Antibiotics free (%)	Antibiotics used (%)
France	Conventional	54.6	45.4
	ECC	99.6	0.4
Belgium	Conventional	28.1	71.9
	ECC	98.0	2.0

Foodservice/quick-service restaurants

Plukon works together with its partners in the food service supply chains to further improve animal welfare whilst maintaining high-quality products. With our customers in the foodservice and quick-service restaurants segments, we have extensive programs to guarantee and monitor the welfare, quality and sustainability criteria. With one of our major quick-service restaurant customers, we have a special programme with enrichment materials and pecking objects in the broiler houses to stimulate animal welfare and strict antibiotic reduction targets.

Collaboration for improved animal welfare

“As a Category Director at Carrefour France, improving the animal welfare of our products is my responsibility, in collaboration with the Quality Department. In 2020 Carrefour France has signed the European Chicken Commitment, so by 2026 all the products under Carrefour brand, containing more than 50% of our chicken, will meet the Better Chicken Commitment specifications (ECC). Together with our colleagues from the quality department, we look for opportunities to create products that have improved animal welfare whilst maintaining a high quality. Our customers are interested in products that have improved animal welfare; however, the price remains important for them when grocery shopping.

“Although we had ideas on improved animal welfare, Plukon/DUC had the expertise and knowledge of the poultry supply chain and its farmers. Together we were able to create a concept that meets the ECC and is economically viable.”

Therefore, we were looking for an improved animal welfare concept, without raising the costs for the products extensively.”

Innovation key to the success

“We were able to collaborate with our long-term partner Plukon/DUC. In the realisation of the ECC products, we had great support from the people at Plukon/DUC. Although we had ideas on improved animal welfare, Plukon/DUC had the expertise and knowledge of the poultry supply chain and its farmers. Plukon/DUC was innovation oriented and came up with great solutions. This has been a great team effort where innovation was key to the success.”

First retailer in France

“End of 2020, all our chicken from our private label Carrefour Classic met the ECC standard. Chickens have more room to roam around and special objects (pecking objects, perches, scratching posts) have been installed. Also, natural light comes into the broiler house. These improvements allow the chickens to develop in optimal conditions and with respect for their well-being. In addition, the chickens are now

raised without antibiotic treatments and are always fed without GMOs. We are very proud that we have launched the product range that meets the ECC, as the first retailer in France.”

Serge Larmagna
Category Director at Carrefour France



“We were looking for an improved animal welfare concept, without raising the costs for the products extensively.”

Animal health and welfare

Lower impact during loading and transport

To improve animal welfare, Plukon also innovates in its own operations. During transport and at the slaughterhouses, we implement innovations to minimise stress for the broilers. In 2016, we introduced the ATLAS system in Maasmechelen (BE). ATLAS is short for Advanced Technology Live bird Arrival System. The system makes the loading of live broilers easier and more animal friendly. Where the traditional unloading systems use containers which have to be tilled, the ATLAS system makes use of trays. These trays are unstacked, instead of tilled, which is less stressful.

Next to improved animal welfare, ATLAS also contributes to a more efficient transport. In the slaughterhouse, the system also offers advantages, as the trays can be cleaned better than the current containers. The installation of ATLAS requires the supply halls to be rebuilt and enlarged. By the end of 2022, the ATLAS system was operational in six of our slaughterhouses: France (Chailley), Germany (Storkow), Belgium (Maasmechelen, Moeskroen) and the Netherlands (Blokker, Goor). Due to a delay in the licensing procedures, the implementation at the Dedemsvaart (NL) location is delayed. The installation for Dedemsvaart is scheduled in 2024.

Early feeding

Since 2017, Plukon has encouraged the implementation of early feeding in multiple hatcheries in the Netherlands, Belgium and Germany by including it as a requirement in different concepts. When chickens hatch, they have a natural egg yolk rich in nutrition for feeding. However, research shows that chickens develop better if they are given access to additional sources of energy, directly after hatching. The additional energy sources contribute to the health of the chickens, and thereby the reduction of antibiotics used. Together with our hatchery Optibrut, we have further expanded the share of chickens from the early feeding system in 2022. We stimulate the use of early feeding across

our supply chains, in particular in Germany, Belgium and the Netherlands. In Germany and the Netherlands the number of chickens with early feeding is steadily increasing since 2018. In the coming years, we will look into the possibilities to further expand the early feeding system to other countries where Plukon operates.

Use of early feeding

% chickens of total with the early feeding system, based on the country of slaughter.

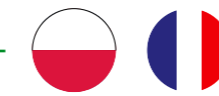
Country	2022	2021	2020	2019	2018
Germany	96	97	74	67	50
The Netherlands	54	44	37	39	30

In Belgium, the use of early feeding is limited and numbers are not yet registered. Therefore the data on early feeding in Belgium could not be integrated in this report.

Monitoring animal welfare

Measuring animal welfare before and during slaughter ensures that Plukon can take targeted and effective actions to improve animal welfare. Together with the University of Gent and cooperating industry partners, we have developed a camera monitoring system that studies animal welfare indicators, such as footpad dermatitis and hock burns and implemented these systems in several locations. These measurements are available and comparable for multiple parties in the poultry supply chain.

“Be proud of what you do and show it!”
- Birthe Steenberg, Secretary General at AVEC



The European aWISH-project started in 2022. In this project, an automated welfare monitor system is developed. Novel sensors will be developed and tested to measure animal welfare indicators. These sensors monitor the animal welfare from farm to slaughterhouse, including the catching and transport and provide insights into best practices for improved animal welfare. Our site in Poland and one site in France will be joining the aWISH-project. Joining the European project will help us to further improve animal welfare throughout the poultry supply chain.



Chicks in the HatchCare system of HatchTech



Responsible use of veterinary antibiotics

Plukon aims for healthy animals and for restrictive and selective use of antibiotics. Together with broiler farmers, Plukon aims to reduce the use of antibiotics to the minimum level that is required to guarantee animal welfare. If animal health requires the use of antibiotics, this is done responsibly with minimal effects on animal or human health.

Antibiotic-free broilers (%) in different concepts	2022	2021	2020	2019
Conventional	33%	30%	27%	24%
Good Brood Chicken	97%	96%	94%	92%
Slow growing/ECC (Belgium)*	98%	-	-	-
Slow growing/ECC (France)*	100%	100%	100%	99%
Better Life 1 star	98%	98%	97%	97%
FairMast/Haltungsform 3	88%	88%	84%	85%
Organic**	96%	98%	95%	96%

*The slow growing/ECC started in Belgium in 2022.
 **Broilers from Belgium and slaughtered in Belgium.

In the last CSR report (2017-2018), we included figures on antibiotics use of broilers slaughtered in the Netherlands only, because of the available data. In this overview, conventional chicken now includes all six countries where Plukon operates. However, this means that the percentage of antibiotic-free raised conventional broilers compared to the 2018 numbers, drops considerably. In the Netherlands, due to political pressure, societal wishes and customer requirements, the use of antibiotics has declined sharply in recent years. In other countries, usage is still higher. Poland, Germany and Belgium in particular have a relatively high use. In France and Spain it is relatively comparable to the Netherlands. In all countries, Plukon is working with poultry farmers, veterinarians, chain partners and customers on further reduction of the use of antibiotics.

Together with the Polish retailer Biedronka, Plukon started in 2022 a poultry supply chain free of antibiotics. The products sold at Biedronka receive the claim 'free of antibiotics'. Together with Polish farmers, broilers were kept without the use of antibiotics. This requires adjustments at the farm, leading to higher expenses for poultry farmers. The farmers receive a higher price for their broilers. The knowledge and expertise of veterinarians and laboratories contributed to the successful creation of the antibiotic-free poultry program.

These types of concepts help us to further reduce the use of antibiotics. Slower-growing concepts, such as the ECC chicken in Belgium and France, but also the Better Life label 1 star concept contribute to the responsible use of antibiotics. Our goal is to have a minimum of 50% antibiotic-free broilers within each concept across all countries where Plukon Food Group operates by 2025. In the coming years, we will further explore collaborations with retailers and food service customers, to reach our goal.

Making the European poultry sector visible

“With nineteen members from seventeen different European countries, we represent the poultry meat sector in Brussels. AVEC facilitates communication and exchange between international organisations and decision makers. By making the voices of the EU poultry meat sector heard, AVEC is ensuring the development of a solid and thriving European poultry meat sector. Next to that, an important aspect of AVEC is to make the EU poultry meat sector visible. AVEC has five focus areas: Food quality and safety, Animal health and welfare, Trade, Sustainability and Communication.”

Showcasing the value of the poultry sector

“For years, the poultry meat sector contributes to providing healthy and safe food to European consumers. However, this sector is not visible and unknown by consumers. People do not know the innovations that the sector has implemented over the last decades. For example, creating improved animal welfare broilers whilst providing consumers with high-quality and nutritious food. Through different projects, we communicate and inform EU consumers about the EU poultry sector. Really showcasing the value of the poultry sector and the steps taken on sustainability.”

Innovative and willing to change

“The publication of the Green Deal and the Farm to Fork strategy will have a major effect on the poultry sector. The poultry sector has proven to be innovative and willing to change, however, the new policies should be realistic for the sector. AVEC has created the Sustainability charter, with four ambitions that the poultry meat sector will work towards for the coming years. From reducing the environmental impact of poultry products to further improving animal welfare. All our members are committed to the ambitions formulated in the AVEC sustainability charter.”

Be proud and show it

“We see that there is a lot of opposition towards our sector. We are more than convinced there is a sustainable future for our sector. We should be more transparent on how we work, and how animal health and welfare is part of the daily work in the poultry meat sector. Be proud of what you do and show it!”

Birthe Steenberg
Secretary General at AVEC

“We are convinced there is a sustainable future for our sector.”





Animal health and welfare

Material topics and goals

Material topic	KPI	Goal	2022	2021	2020	2019
Animal health and welfare	% of chicks from the early feeding system in the Netherlands and Germany.	Encouraging early feeding in the Netherlands, Belgium and Germany.	NL: 54% DE: 96%	NL: 44% DE: 97%	NL: 74% DE: 37%	NL: 67% DE: 39%
Animal health and welfare	# of Plukon Food Group sites with the innovative container system (ATLAS) for improved animal welfare at the slaughterhouses.	ATLAS system implemented at 7 sites by 2024.	6 sites	5 sites	4 sites	3 sites
Green innovations and innovative farming concepts	% growth in volume of broilers kept as part of a certified concept based on improved animal welfare (compared to the previous year).	2.5% annual increase in the volume of broilers kept as part of a concept based on improved animal welfare.	-1.35%	0.48%	6.18%	-5.85%
Responsible use of veterinary antibiotics	% of antibiotic-free broilers in each concept as part of the total volume.	Minimum of 50% antibiotic-free broilers within each concept (conventional and concepts based on improved animal welfare) across all countries where Plukon operates.	Conventional: 33% Good Brood: 97% ECC: 98-100% BLL 1 star: 98% FairMast: 88% Organic: 96%	Conventional: 30% Good Brood: 96% ECC: 100% BLL 1 star: 98% FairMast: 88% Organic: 98%	Conventional: 27% Good Brood: 94% ECC: 100% BLL 1 star: 97% FairMast: 64% Organic: 95%	Conventional: 24% Good Brood: 92% ECC: 99% BLL 1 star: 97% FairMast: 85% Organic: 96%

Chapter 7

Circularity
and climate





Plukon Food Group wants to add value by closing loops and working towards a circular business. We seek possibilities to limit residual flows, lower our carbon footprint, reduce our environmental impact, and increase the recyclability of packaging. Plukon invests in energy efficiency, renewable energy, reduction of water consumption, transport distance and duration.

Direct and indirect emissions of greenhouse gases

Reducing our emissions

As a food-producing company, we have an impact on climate by emitting greenhouse gases (GHG), either direct or indirect. Direct emissions are GHG that we generate at our own production sites. For example, the heating of our buildings and the use of fuels for our own fleet of vehicles (the so-called scope 1 emissions). Indirect emissions originate from the production of the energy we purchase and use: electricity, district heat, use of fuels for purchased transportation and electricity for electric cars (the so-called scope 2 emissions).



We reduce our emissions by investing in energy-efficient solutions and the optimisation of our transport. In 2022, we installed photovoltaic plants in ten Spanish facilities, better known as solar panels. These facilities include rearing- and breeding farms and a hatchery. A total of 1.2MW can be generated by these ten plants. This reduces our energy consumption and reduces our direct emissions at those facilities as well.

	Electricity (kWh) per tonne of live weight (kg)*	% difference compared to 2015	Gas (m ³) per tonne of live weight (kg)*	% difference compared to 2015
2022	119.3	-5.1%	5.0	8.7%
2021	120.8	-3.9%	5.4	17.4%
2020	125.3	-0.3%	5.7	23.9%
2019	124.3	-1.1%	6.2	34.8%
2018	124.1	-1.3%	4.5	-2.2%
2015 (baseline)	125.7	baseline	4.6	baseline

*Energy and gas consumption per tonne of live weight (kg) for our Dutch, Belgian and German sites: Blokker, Dedemsvaart, Goor, Maasmechelen, Mouscron, Storkow, Brenz and Gudensberg. Based upon 849,343 tons live weight supplied, slaughtered and processed on these locations.

To take accurate measures to reduce our direct and indirect measures, we need to calculate our exact GHG emissions. Our goal is to determine the carbon footprint (of direct and indirect emissions) for all locations within the Plukon Food Group. Once we have mapped our emissions, we are able to set reduction targets which we expect to do in 2024.

Gas and energy consumption

The bulk of the energy is used to refrigerate and freeze meat. The effective cooling of slaughtered broilers for the production of fresh and frozen meat is vital in order to guarantee food safety. The meat needs to be cooled rapidly from around 37°C to lower than 4°C. Only then Plukon can satisfy the high food safety and shelf life requirements. We mainly use gas to heat the byproducts of slaughter and waste streams for processing into feed for animals that do not enter the human consumption supply chain (e.g., cats, dogs).

The location in Wezep (NL) has a BREEAM certification score of 5 stars, which means it complies with the highest sustainability requirements. This has made Wezep into the first facility of Plukon Food Group without a gas supply. Each of our production facilities maintains its own energy-efficiency plan, which makes the performance transparent and allows for relevant comparisons.

The reduction of emissions is essential to reduce our impact on the environment. Although we have not yet calculated the carbon footprint of all our locations, we do however monitor our energy consumption and gas consumption. Our goal for energy reduction, as reported in our 2018 CSR report, has not been changed; we want to produce 2.5% more energy-efficient in 2025 versus 2015.



In 2022, the consumption of electricity decreased by 5.1% and the consumption of gas increased by 8.7% compared to 2015. The increase in gas consumption in 2022 has several reasons. A major reason is a result of the larger production volume of by-products processed. The rendering of the by-products by steam and heat ensures that the protein in the product becomes soluble. The volume of by-products is linked to the volume of the total number of animals slaughtered.

Due to technical problems at two sites, we also had to temporarily use emergency diesel-powered plants. With the new central heating boilers installed at these sites, we expect gas consumption to decrease again in the coming year. Another explanation is that at some sites fuel oil and propane gas was used. For the calculation, we have now converted this to calorific value gas and included it as 'natural gas consumption'.

Efficient transport

Efficient transport can significantly contribute to lowering emissions. We manage our logistics operations as efficiently as possible. We invested for example in our own trucks for the Ommel (NL) location in 2021. These trailers are equipped with two axles, increasing the load capacity. On the route between Blokker and Ommel, this means that only 3 instead of 4 trucks need to drive daily, a saving of 25% in the number of trips. In 2022, we invested in eight trucks for our Spanish locations that are able to carry up to a 60% higher load. The increase in load requires only a small amount of extra diesel compared to regular trucks. These types of investments help to reduce our emissions.

Currently, Plukon investigates the possibilities to transport as efficiently as possible whilst meeting the standards for improved animal health and welfare. The volume (kg) of broilers per kilometre has increased since 2019 substantially in the Netherlands (+7%) and Belgium (+11,5%) and slightly in Germany (+3,5%).

	2022	2021	2020	2019
Number of km per trip				
The Netherlands	268.7	270.7	271.3	285.1
Belgium	265.1	289.1	298.6	285.6
Germany	392.7	363.6	361.3	372.8
Live weight (kg) per km				
The Netherlands	55.64	58.29	55.51	52.02
Belgium	61.48	56.44	53.78	55.16
Germany	36.82	38.55	38.67	36.69

“The Greenwell project shows that higher animal welfare production systems could reduce greenhouse gas emissions compared to the conventional broiler system.”



Finding an optimum for animal welfare and environmental impact

Greenwell project

“I have been part of the Greenwell project since the beginning. In this project, we investigated whether there is an optimum between animal welfare and low environmental impact. We have analysed three broiler production systems: conventional, intermediate segment (Dutch Retail Broiler), and Better Life label 1 star.”

Life Cycle Assessment

“We have looked at three different environmental aspects of the broiler value chain from feed to slaughterhouse: greenhouse gas emissions, land use, and phosphorus excretion, by using a Life Cycle Assessment (LCA). The LCA of the three broiler production systems shows that feed production and feed conversion rate are the most important parameters for the environmental impact.”

Emissions from land-use change

“Around 80% of the total greenhouse gas emissions of broiler production is related to the cultivation and processing of raw materials for feed. Broiler feed is rich in proteins, often protein from soybean meal. The soybean meal can have a high carbon footprint, depending on the region where the soy has been sourced from. Emissions from land-use change (LUC) such as deforestation have a major impact on greenhouse gas emissions. Soy products have emissions from LUC if there is no guarantee that the land-use change occurred more than 20 years ago. This means that soy sourced from North America has a lower carbon footprint, compared to soy sourced from South America.”

Similar carbon footprint

“Slower-growing breeds live longer and have a higher feed intake than fast-growing broiler chickens. You would therefore expect that the slower-growing breeds (such as the ones used for Better Life label 1 star) would have the highest carbon footprint. However, the diets for broilers in Better Life label 1 star system consist of different ingredients, have lower protein levels, and contain fewer soy products as compared to the diets of fast-growing chickens in conventional and intermediate systems. The study, therefore, shows that Better Life label 1

star has a lower carbon footprint compared to conventional and intermediate (Dutch Retail Broiler) segments if emissions from LUC are included and if soy products are sourced from South America.”

Integral approach

“Given that feed production (i.e., cultivation, transport, and processing) and feed conversion rate are the most important parameters for the environmental impact, measures for reduced environmental impacts should therefore be sought in these parameters. The Greenwell project shows that higher animal welfare production systems could reduce greenhouse emissions compared to the conventional broiler system. When you look for solutions to reduce the environmental impact, you need to take an integral approach. Reducing environmental impact by changing diets, might have consequences for animal welfare and economics. There is not one solution, which makes it complex.”

Dr Pim Mostert
Researcher at Wageningen Livestock Research

[Read the complete report.](#)

Emissions in the value chain

Next to our direct and indirect emissions, there are emissions produced throughout the Plukon Food Group value chain as well. These emissions are generally known as scope 3 emissions: emissions for example when producing feed for broilers or broiler farming. The emissions in the value chain include our total supply chain from raw material to end product and include the emissions at the farm level.

In 2022, we developed an (auditable) LCA model for one of our farming concepts. The LCA model allows us to calculate the CO₂-footprint of the farming concept. Currently, we are in the data collection phase. In 2023, we will have the emissions of the value chain of one of our Dutch concepts in scope and we will be able to formulate reduction targets. The LCA will show where we can create the biggest impact on scope 3 emissions so that we can take accurate measures to reduce these emissions. By 2024 we want to have our scope 3 emissions for all our locations mapped. Once we know the scope 3 emissions, we will formulate a reduction strategy with clear ambitions and targeted measures for Plukon Food Group.

Feed conversion rate

Genetic progress improves the feed conversion of broilers every year. In 2018, the average feed conversion rate for conventional broilers was around 1.20 at a corrected weight of 1,500 grams. In 2022, the average feed conversion rate for conventional broilers was around 1.10 at a corrected weight of 1,500 grams. This means that because of this genetic progress, taking into account the feed composition and quality, for the same volume of live weight around 8.3% less feed is needed. The feed conversion rate provides insight into the efficiency of the broiler production per kilogram live weight. Emissions from feed production are important for the impact on greenhouse gases emissions. A low feed conversion rate can therefore lead to a lower carbon footprint of poultry.

Packaging and innovations

As a food-producing company, we use different types of packaging for poultry and meal concepts. Over the last few years, Plukon has set clear goals on how to create more sustainable packaging for poultry products. These goals are:

1. Use of recyclable packaging materials (mono-material > 95%).
2. 25% reduction of packaging materials (in kg, baseline 2017).
3. Maintain or improve the level of consumer convenience and product quality.
4. Where possible, increase the recycled content in the current packaging.
5. Minimise secondary packaging and where possible move to reusable packaging types.

These are ambitious goals. However, we feel it is our responsibility to minimise the impact of our food packaging. Thanks to innovations and adaptations in packaging, we achieved the ambition of reducing the volume of plastic packaging materials (kg) by 25% in the Netherlands in 2022. In this year, we completely transformed the packaging of our chicken bone products which we supply to a Dutch retailer. The consumer buys the drumsticks and snacks in a bag instead of a tray. This switch from tray to bag saves more than 95,000 kilos of plastic on an annual basis. In fact, it saves 70% plastic per sold unit without compromising on the shelf-life or quality of the product. Another innovation is the thinner foil on the salad bowls (saving 9,000 kilos of plastic per year).

Also in the other packaging materials (cardboard/paper and aluminium) for products for the Dutch retail, we are making progress. In 2022, with almost unchanged volumes of product sold, we have reduced the volume (kg) of packaging materials by 11.6% for cardboard/paper and by 10.1% for aluminium. Changes such as no more cardboard sleeves on the baking trays (saving 90,000 kg of cardboard per year), helped us to achieve this reduction.



In this year, we completely transformed the packaging of our chicken bone products which we supply to a Dutch retailer. The consumer buys the drumsticks and snacks in a bag instead of a tray. This switch from tray to bag saves more than 95,000 kilos of plastic on an annual basis. In fact, it saves 70% plastic per sold unit without compromising on the shelf-life or quality of the product. Another innovation is the thinner foil on the salad bowls (saving 9,000 kilos of plastic per year).



To keep improving packaging, it is key to work with supply chain partners. In Spain, Plukon started to collaborate with its suppliers in 2021 to improve the recyclability of plastics. In 2022, all the transparent trays made of PET-PE material were replaced by single-material trays made of PET that are easier to recycle. At the same time, the thickness of the new transparent trays has been reduced. On average, plastic reduction has been around 4,5% in weight.

At the Chailley site in France, we focus on an eco design approach. In 2022, we switched to trays of mono material rPET to improve the recyclability of the trays. We also harmonised the packaging of products packaged in a modified atmosphere and reduced the size of the packaging

at the same time. For all Dutch retailers, the fresh poultry products are now packed in a packaging made of 95% rPET (recycled PET).

In 2023, we will create a sustainable packaging strategy for the entire Plukon Food Group. This strategy will not only include our poultry products, but also our meals and salads, meal components and alternative proteins. Together with our supply chain partners, we will further reduce the use of packaging materials and use more mono materials that are better recyclable.

Packaging material per kg sold product (the Netherlands, baseline 2017)

	2022	2021	2020	2018	2019	2017
Packaging material per kg sold product in NL	0.044	0.047	0.047	-	-	0.048
Reduction in packaging material per kg sold product (baseline 2017)	-8.3%	-2.1%	-2.1%	-	-	baseline

Waste and or water effluents

Plukon Food Group aims to reduce water consumption at all production sites by implementing a variety of measures. Water consumption per tonne of live weight increased slightly from 2015 as a result of control measures to further improve slaughter hygiene. Extra water is used for the hygienic cleaning of the containers and trucks used to transport the poultry and the production line. In 2018, we committed ourselves to the goal of 5% reduction in water consumption per tonne of live weight (m³/kg) between 2015 and 2025. The overview in the table shows that in 2022 have not achieved this goal yet.

	Water (m ³) per tonne of live weight (kg)*	% difference compared to 2015
2022	3.46	+8.1%
2021	3.47	+8.4%
2020	3.51	+9.7%
2019	3.32	+3.8%
2018	3.36	+5.0%
2015	3.20	(baseline)

*Water consumption per tonne of live weight (kg) for our Dutch, Belgian and German sites: Blokker, Dedemsvaart, Goor, Maasmechelen, Mouscron, Storkow, Brenz and Gudensberg. Based upon 849,343 tons live weight supplied, slaughtered and processed on these locations.

We reuse water at our production site in Storkow, Germany. This saves up to 250 m³ each day, around 20% of the daily use of water at this site. In our wadi at the Wezep site, we capture approximately 26 million litres of rain each year, 32% of the water used at this site.

Creating circular products

Animal by-products, such as blood, feathers, intestines, heads and feet, are created during the slaughter of broilers. These by-products are not intended for human consumption but are highly suitable for processing into feed for pets or as fertiliser. Together with five other poultry processing companies, we have established the company Noblesse Proteins. Noblesse processes animal by-products into semi-finished goods, which are sold to various companies. The products of Noblesse can be raw materials for pet food or aquaculture feed. But it can also be used to manufacture biofuels or fertilisers.





Circularity and climate

Material topics and goals

Material topics	KPI	Goal	2022	2021	2020	2019
Direct and indirect emissions	<p>Temporary KPI (until baseline study): % change compared to current baseline 2015 of energy and gas consumption per tonne of live weight.</p> <p>Plausible KPI (after baseline study): Scope 1 and Scope 2 emissions (in CO₂-eq.)</p>	Execute a baseline study, set a goal and reduction strategy.	<p>-5.1% for electricity</p> <p>+8.7% for gas</p>	<p>-3.9% for electricity</p> <p>+17.4% for gas</p>	<p>-0.3% for electricity</p> <p>+23.9% for gas</p>	<p>-1.1% for electricity</p> <p>+34.8% for gas</p>
Emissions of greenhouse gases in the value chain	<p>To be decided upon.</p> <p>Plausible KPI (after baseline study): Scope 3 emissions (in CO₂-eq.) or specific scope 3 emissions.</p>	To be decided upon.				

Chapter 8

People and society





Plukon wants to be an attractive employer, where healthy and safe working conditions, and equal opportunities are the standard. We are committed to long-term employability, training, and education. Retaining and attracting talented and motivated employees is essential to our growing organisation. With a growing business and the ‘war for talent’, our internal processes such as onboarding new employees and providing opportunities for career development are now even more important than ever before.

Employment practices, occupational health and safety

Plukon’s health policy focuses on education in the workplace, healthy nutrition and sufficient exercise. Plukon promotes a healthy lifestyle, which contributes to the long-term employability of staff. In our introduction programmes health is an obligatory part, so that all our employees are aware of the necessity of healthy nutrition also during working hours.

At the end of 2022, a health and safety audit was performed by an external party in all Dutch plants. The results show that a healthy private-work balance, prevention of safety and health issues and nutrition and exercise are the main focus areas. An indicator of healthy employees is the average sickness absence rate. By 2025, we want to have less than a 6% average sickness absence rate across all Plukon sites.

Despite COVID-19 for three consecutive years (2020-2022), the increase in sick leave is rather modest in the Netherlands and Belgium. In the other countries, a bigger increase is noticeable.

For multiple years, we gradually phase out physically demanding work. The use of automation and robotics is more and more introduced into our production facilities. An example is the introduction of a brochette machine, which allows for a fully automated process of making our brochettes. The gradual phasing out of physically demanding work also requires the adaptability of our employees. To prepare them, we have online training on automation and robotics at our production locations.

Absence due to sick leave (excluding pregnancies)

	The Netherlands	Germany	Belgium	France	Poland	Spain
2022	8.1%	8.4%	5.1%	8.4%	6.4%	6.4%
2021	9.1%	7.3%	4.8%	9.3%	7.8%	5.3%
2020	7.9%	7.4%	4.4%	8.7%	7.0%	4.3%
2019	8.9%	7.3%	3.8%	8.9%	5.5%	-
2018	8.3%	6.3%	3.7%	6.5%	2.9%	-



Health and safety in France

Health and safety are important topics for Plukon/DUC in France. In 2022, the country board of France signed a Health and Safety commitment. Subsequently, a roadmap for France was developed to improve safety, increase awareness and strengthen the safety culture in the organisation. For monitoring, we use a pyramid consisting of the seven health and safety pillars: single risk assessment, mandatory training, regulatory inspections of facilities, fire evacuation, safety and 5S visits for creating a more organised and productive workspace, accident analyses and monitoring of safety action plans.

Each year, targets are set to reduce the number of accidents at DUC. The management team opens each weekly meeting with a presentation of the last week's accidents. The management committee follows up on each accident. A systematic and specific analysis is made of all accidents by the Health and Safety department of each plant. Based upon an investigation, a report and subsequently an action plan is made and followed-up by the plant manager. On a health and safety scorecard, progress on the annual target is monitored, and all relevant indicators are registered and monitored. At the end of each month, the frequency rate and severity rate of accidents is discussed in the management committee and in the country board.

Health and safety of employees

Reducing the number of workplace accidents is an everyday priority of Plukon. By involving employees and managers in an action plan to address employment risks, Plukon aims to increase awareness in the workplace and to reduce the number of accidents.

In Germany for example, multiple health and safety e-learning training courses for employees were developed. In 2023, a campaign on health and safety issues will be conducted at the German sites. In Belgium, a campaign was executed focusing on the use of ear plugs and machine safety. Spain has an ongoing programme on health and safety that includes initial training, as well as periodic on-the-job training. Their health surveillance programme consists of medical examinations and COVID-19 cases management. Special attention is given to the protection of pregnant workers. In the Netherlands, employees can join Preventive Medical Examinations. It is expected that over 65% of employees in the Netherlands will participate.

The ultimate goal is to have zero accidents across all our sites. Plukon continues to work on permanently improving safety and aims to reduce the number of accidents by a minimum of 30% by 2025 compared to 2018.





Training and career development

In the 'war for talent' it is extra important to strengthen the reputation of Plukon Food Group as an attractive employer. In our vision, we strive to ensure that employees always leave better than they started. In 2022, we introduced an engagement program built on the 'buying arguments' of an employee (WIAP: work, income, attention and perspective). All countries made the first steps to implement this concept.



We also introduced the HR cycle to attract, develop and engage employees at Plukon Food Group.

Based on the topics from the HR cycle, we introduced the HR agenda for all countries in 2022. The principle of this approach is to start a pilot in one of the Plukon countries on one of the HR cycle topics. Out of this pilot, we develop a proven concept. If this is the case, we copy this best practice to other Plukon countries. 'HR proven concepts' are all best practices ready for implementation for a county. The goal is to have all HR cycle- and HR governance topics implemented in all Plukon countries over the next four years.

To retain employees, we want to create chances for all employees to grow into higher level positions in the company. We have the ambition to fill at least 75% of the management

positions with internal candidates. In that way, continuous growth and career development is possible within Plukon. To ensure that every employee is given opportunities for their personal growth and talent development, Plukon invests in the HR department, from development of (online) training courses to annual staff reviews and leadership developments. In 2022, already 62% of the management positions were filled in by internal candidates.

New hires and % employees who get a promotion to the next salary level per year

	% new hires (external)	% promoted employees
2022	37%	63%

Data from previous years unfortunately are not available. We will monitor the data for the coming years.

The Plukon Traineeship

To attract new talent, we have created the Plukon Traineeship. The traineeship focuses on giving young professionals a kick-start to their careers. The Plukon traineeship enables the trainee to develop and grow within 24 months into an interesting and challenging position as a professional or manager. Next to our traineeship, Plukon has a Young Professional programme and a Professional programme. In all our programmes, personal development is key. The guidance of this programme is provided by experienced professionals in training and coaching. They provide a safe environment where you can practise and learn.

Number of trainees 2020 - 2022	3
Number of trainees 2022 - 2024	5
Number of participating executives in the Young Professional Programme	12

Developing new skills

Our job house provides an overview of all job profiles within Plukon Food Group. For each job profile, the necessary hard skills (prior education, knowledge and skills, etc.) and soft skills (competences such as leadership, planning and organising, and job-related competences) are described. For each location, we map out how the required skills are scored at job and personal level. Of course, the available skills and competences in the team should match the needs of the (production) location. Based on this, we draw up a training matrix for each location, which also includes the minimum tasks an employee must be able to perform, such as forklift driving, line operation, etc. The matrix shows what type of training courses are needed for the location and forms the basis for a training plan at local level. The technical department already started with the implementation of the training matrix. The site in Maasmechelen has been appointed and equipped as an internal training centre for mechanics and technical service people of all slaughter locations within the group.

Overview of e-learnings in the Plukon portal

Current number of users	+/- 9,800
Number of countries introduced	6 (all Plukon countries)
Number of courses available	375
Number of courses completed in 2022	131,550
Available languages in portal	17

'If you are ambitious, we offer more responsibilities and opportunities'

"Five years ago, I started to work as HR director for Grupo VMR in Spain with the main task to further professionalise the HR department. We are now with seven people, with dedicated colleagues for specific areas such as recruitment, payroll, labour relations, learning and development, internal communication or health and safety. Now that we are part of Plukon Food Group, we are making big steps aligning all projects with the HR strategy of the group."

Help people to develop

"The Plukon culture is focused on helping people to develop themselves in the company. If you are ambitious, we offer more responsibilities and opportunities to improve your professional skills or learn about specific topics. This applies to all positions. For each country and location we develop a formation plan, based upon the question 'what will your department look like in 3-5 years?'. In Spain we have just started to develop this plan. It will provide us more insights into the career opportunities we can offer to our employees, but also to high potentials."

Empowering employees

"Almost in every conversation, we talk about empowering our employees. Our goal is to fill 75% of executive positions with internal candidates. In our recruitment, we always look for someone who can do the job and fill in the next-level position. With strategic personnel planning, we map where new staff is needed in the coming years."

Hard and soft skills

"The Plukon Academy now contains all available learning and development interventions on a personal and

professional level. So, for both hard and soft skills. We can now reach more people and train them on more topics. Each year, we analyse the training needs at the individual and team level and develop an annual training plan with individual and joint training courses. In Spain for example, we offer English classes for every department. We see this as a good way to make everybody a better professional.

Plukon green

In 2022, we also started with the standardisation of the onboarding process. We have established a standard programme for different groups of employees consisting of short meetings with colleagues of each department. Every 3 to 6 months, Plukon Food Group organises onboarding days for team leaders level or higher. They are informed about the strategy and activities of Plukon Food Group and given a good overview of the company. We paint our new colleagues Plukon green, so to speak. Everyone should feel welcome at Plukon and know that they are not only part of one location, but of a bigger group of European colleagues.

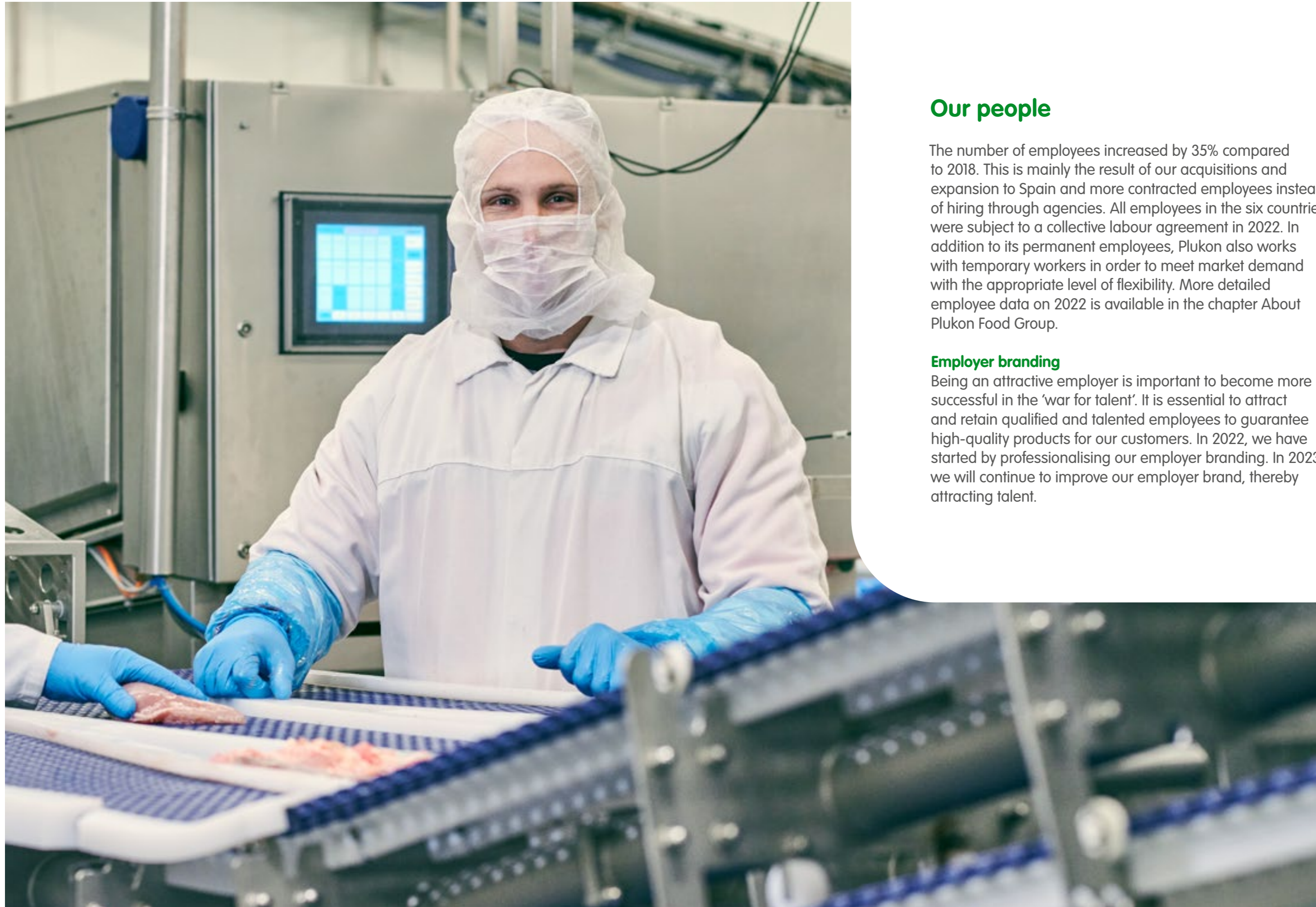
Think bigger

All this will help us to improve our brand as an employer. Our poultry brands are known in Spain, but Grupo VMR is less well-known among candidates. The labour market in Spain is complicated. We have a lot of jobs, but not many qualified people in some positions. In 2023, we will make an effort to improve our employer branding even more. We hope that an improved reputation will also help to retain people and reduce the number of rotations within Plukon. We need people who think bigger and see Plukon Food Group as one company, that allows them to make the next step in their careers.

Gemma Huete Gonzalez
HR Director Plukon Spain

"The Plukon culture is focused on helping people to develop themselves in the company."





Our people

The number of employees increased by 35% compared to 2018. This is mainly the result of our acquisitions and expansion to Spain and more contracted employees instead of hiring through agencies. All employees in the six countries were subject to a collective labour agreement in 2022. In addition to its permanent employees, Plukon also works with temporary workers in order to meet market demand with the appropriate level of flexibility. More detailed employee data on 2022 is available in the chapter About Plukon Food Group.

Employer branding

Being an attractive employer is important to become more successful in the 'war for talent'. It is essential to attract and retain qualified and talented employees to guarantee high-quality products for our customers. In 2022, we have started by professionalising our employer branding. In 2023 we will continue to improve our employer brand, thereby attracting talent.

Connecting with society

We feel it is important to keep in touch with the different stakeholders in the poultry value chain. The poultry sector is an innovative and dynamic sector, which makes it essential to share the latest knowledge and insights with each other.

Inspirational symposium

In 2022, we organised the symposium called 'A new era for the broiler sector'. The latest developments at Plukon and in the sector were shared with business partners and other stakeholders, from market analysis of animal protein to consumer demand for innovative farming concepts. These events are important for our sector because in this way we can keep moving forward together.

It is essential to attract and retain qualified and talented employees to guarantee high-quality products for our customers.



People and society

Material topics and goals

Material topics	KPI	Goal	2022	2018
Employment practices incl. occupational health and safety	% reduction in the number of accidents resulting in absence.	To be formulated	No data available	No data available
Training and career development	% new hires and % employees who get a promotion to the next salary level per year.	To be formulated	% new hires (external): 37% % promoted employees: 63%	No data available

Chapter 9



Our way forward

Our way forward

We are facing challenging times, with climate change, rising energy prices and inflation, outbreaks of Avian Influenza and labour shortages across Europe. These challenging times only motivate us even more to integrate sustainability better and at a faster pace into our business operations. The relevance of creating positive impact in the short and longer term is only increasing. Especially in these times, we collaborate with our retail partners and food service clients to provide millions of Europeans with fresh and healthy food that is affordable, accessible and easy to prepare. At the same time, we are committed to be an attractive employer and offer our people healthy and safe working conditions and the opportunities to grow in their job.

Our updated CSR-policy will guide us in the coming years to create a positive impact on people, environment and the economy. We have developed concrete, and measurable ambitions for the next few years and for topics that are still in early development, we are working on formulating concrete and meaningful indicators and targets. I am confident that with our newly appointed Manager Corporate Sustainability we can accelerate our efforts and deepen our impact.

We need to further reduce our climate footprint through lower energy use and more renewable energy. Consumers are increasingly aware of the footprint when purchasing proteins, and poultry scores well in this area. Plukon has been working on further reducing the (already relatively low) climate footprint of chicken by purchasing sustainable raw materials, as well as through improved feed conversion, energy-efficiency at poultry farms and more efficient business operations. The Green Deal and the Farm to Fork

strategy of the European Union will have a major impact on the poultry sector. I am confident that we will succeed in achieving an integrally sustainable poultry production chain, with a good balance between climate, environment, animal welfare and revenue for poultry farmers.

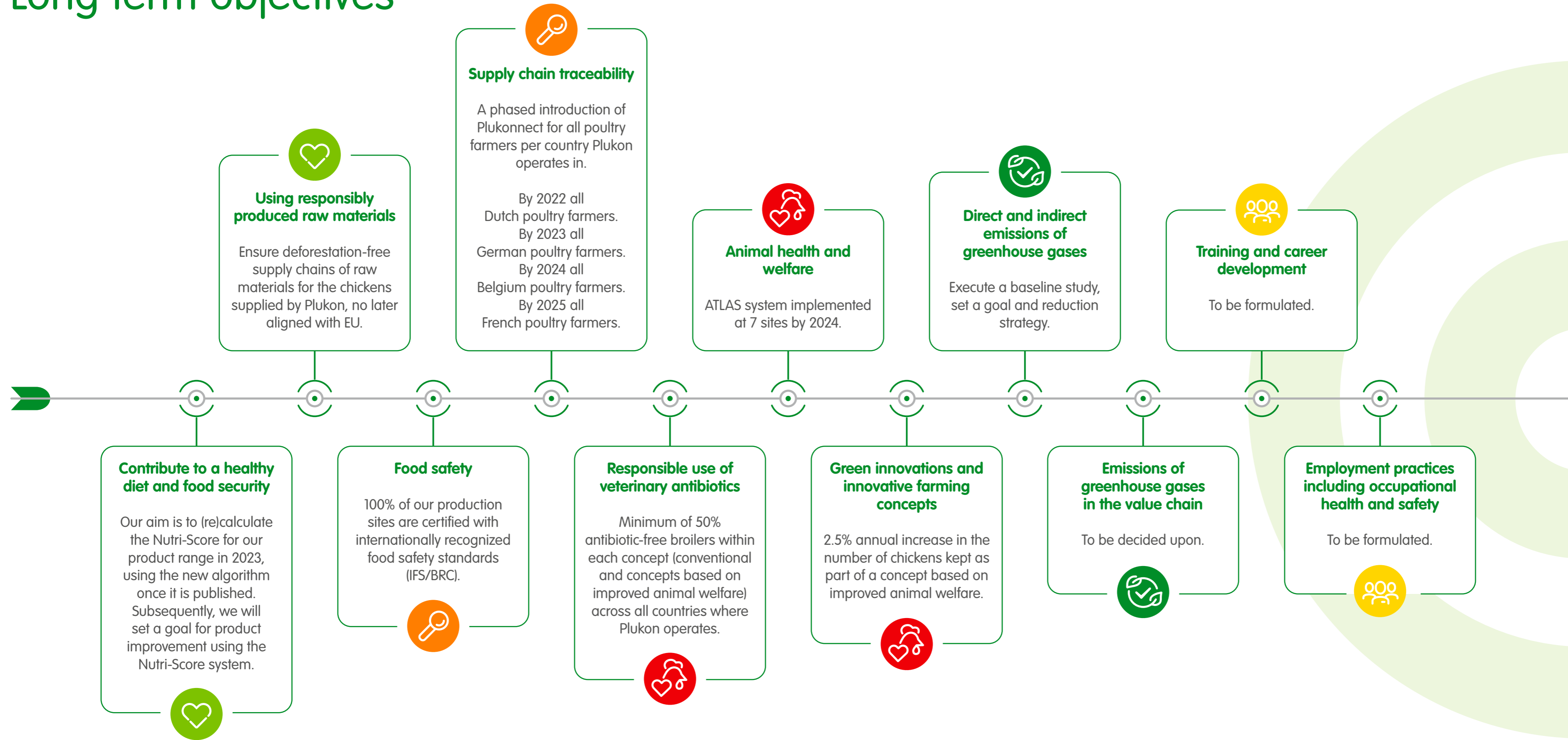
From the first of April 2023 onwards, I am honoured to have been given the opportunity to lead this company. Plukon has various leading market positions and we have huge growth potential in Europe. Entrepreneurship is high among our people and we also want to be a high performance organisation in the future. Our success will also need to continue based on our concepts, innovations, sustainability initiatives and transformation. We will build on the robust foundation laid under Peter Poortinga's leadership to implement our strategy and continue to create value for all our stakeholders. In doing so, we aim to work with our clients and partners to deliver sustainably produced, reliable and affordable proteins to European consumers.

Kees Kraijenoord
CEO Plukon Food Group



“Consumers are increasingly aware of the footprint when purchasing proteins, and poultry scores well in this area.”

Long term objectives



Publication date: 17 April 2023

About this report

This CSR report of the Plukon Food Group covers the period 1 January 2022 to 31 December 2022. It has taken into account the Global Reporting Initiative (GRI) Standards 2021 and the Sustainable Development Goals (SDGs). The reporting period and reporting cycle for sustainability and financial reporting are the same. Unless otherwise specified, the results relate to all business units of Plukon Food Group in the Netherlands, Belgium, Germany, France, Poland and Spain. Its scope and contents are based on the material topics and the information needs of stakeholders.

The content was developed by the 'Materiality and CSR reporting 2022' project team of Plukon Food Group was formed, consisting of the Manager Corporate Sustainability, External Reporting Manager, Innovation Director, Director Corporate Quality and the Communications and PR Manager, and supported by consultancy agency Schuttelaar & Partners. Plukon Food Group aims to report on the CSR topics set out in this report every year.

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Appendix 1 Materiality analysis 2022

In 2022, Plukon Food Group renewed its materiality analysis to identify its most significant impacts on the economy, environment, and people, including impacts on their human rights.

For this process, the 'Materiality and CSR reporting 2022' project team of Plukon Food Group was formed, consisting of the Manager Corporate Sustainability, External Reporting Manager, Innovation Director, Director Corporate Quality and the Communications and PR manager.

A longlist with potential material topics for Plukon was developed based on desk research, in four steps.

- Material topics from the previous materiality analysis of Plukon.
- Relevant topics for Plukon as defined in GRI Sector Standard 13 Agriculture, Aquaculture and Fishing.
- Topics that recur with multiple peers and relevant sector organisations.
- Topics that reoccur in the media about Plukon, the poultry sector and their impact.

The longlist included 33 topics. The 'Materiality and CSR reporting 2022' project team of Plukon Food Group condensed the list to 24 topics, divided in ESG categories: Environment, Social, and Governance.

For the analysis, the most relevant internal and external stakeholder groups were identified:

- External: Customer retail, Customer QSR, Customer food service, Customer animal proteins, Supplier, Trade organisation, NGO, Education/research, Consultants/ accounting, Bank/financier and Authorities.
- Internal: Central Works Council, HR, Sales, Communication, Procurement and supplychain, Quality and Sustainability, Finance and Legal, Business Innovation, Management (MDs), Supervisory Board, MT and others.

A total of 114 stakeholders have been invited to fill out the online survey. External and internal stakeholders were invited to fill out an online survey, with the following results.

Group	# invited	# responded	response
External	67	43	64%
Internal	47	41	87%
Total	114	84	74%

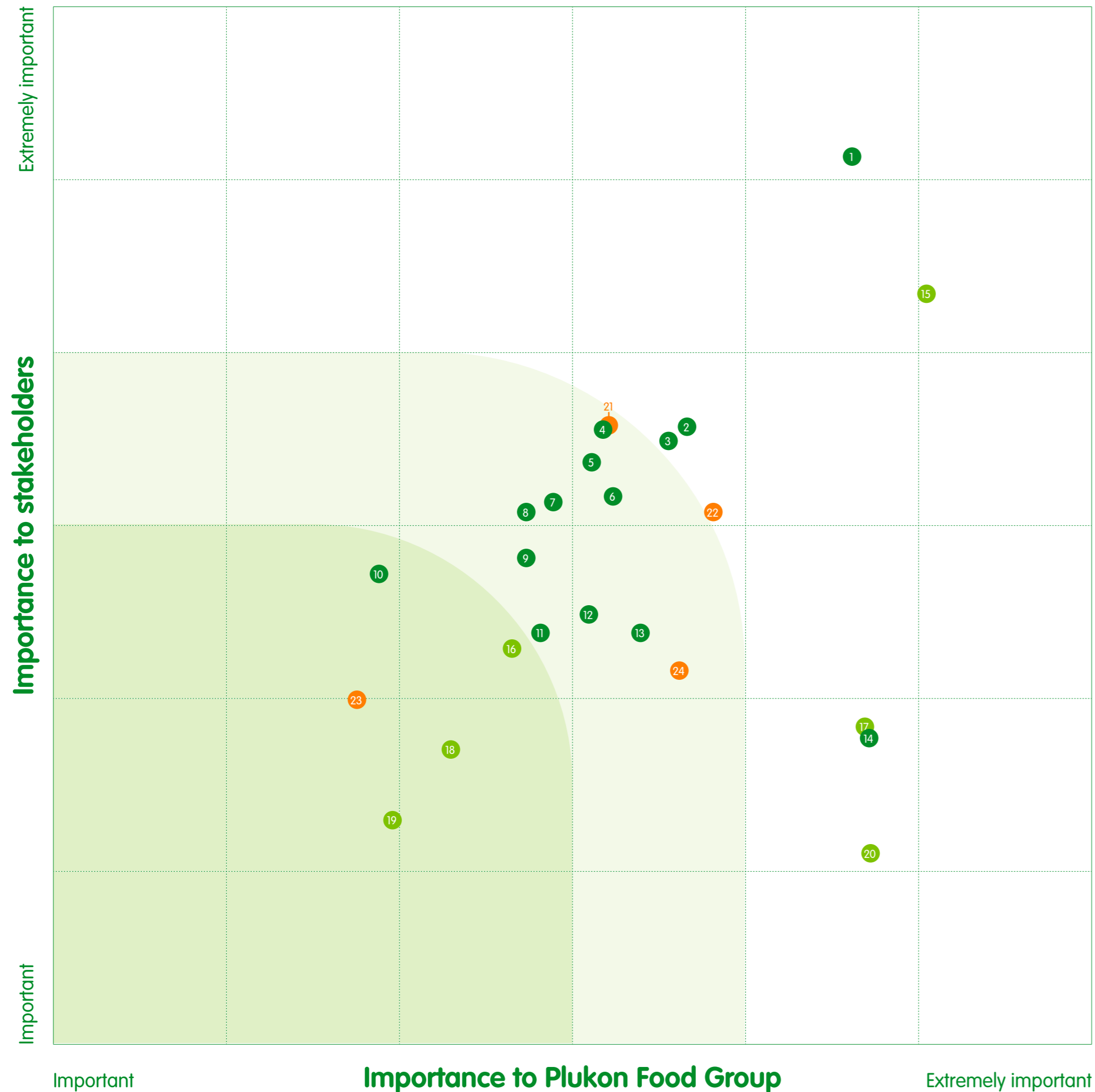
This resulted in the materiality matrix shown on the next page (page 64).

In a validation meeting with the Executive committee of Plukon Food Group, the final material topics were selected and KPIs for each topic were discussed. The 'Materiality and CSR reporting 2022' project team of Plukon Food Group made the final selection of KPIs.

CSR pillars and material topics

Healthy and sustainably produced food	Food safety and transparency	Animal health and welfare	Circularity and climate	People and society
Using responsibly produced raw materials	Foodsafety	Animal health and welfare	Direct and indirect emissions greenhouse gasses	Training and career development
Contribute to a healthy diet and food security	Supply chain traceability	Green innovations and innovative farming concepts	Emissions of greenhouse gasses in the value chain	Employment practices including occupational health and safety
		Responsible use of veterinary antibiotics		

In validation interviews, 6 external stakeholders shared their outside-in perspective on the final matrix.



Environmental

- 1. Animal health and welfare
- 2. Green innovations and innovative farming concepts
- 3. Responsible use of veterinary antibiotics
- 4. Emissions of greenhouse gases in the value chain
- 5. Direct and indirect emissions of greenhouse gases
- 6. Using responsibly-produced raw materials
- 7. Zoonosis
- 8. Climate adaptation and resilience
- 9. Food waste
- 10. Biodiversity
- 11. Water and effluents
- 12. Waste
- 13. Packaging
- 14. Contribute to a healthy diet and food security

Social

- 15. Food safety
- 16. Human rights and equal opportunity
- 17. Employment practices including occupational health and safety
- 18. Freedom of association and collective bargaining
- 19. Local communities
- 20. Training and career development

Governance

- 21. Supply chain traceability
- 22. Customer satisfaction
- 23. Public policy
- 24. Financial performance

The material topics resulting from the analysis are highlighted.