

We stand for the nutritional mix of the future



PHW Group
Sustainability report 2023



Dear Readers,

To me, sustainability means treating the environment, society and economic activity in a way that conserves resources.

We are a third generation family business with a 90-year history. Acting responsibly and sustainable corporate management have been the foundations of our company for many decades.



Time and again these days we hear the term sustainability. In the meantime, every corporate action is now assessed from a sustainability perspective by politicians, NGOs, our business customers and consumers. Increasing attention is being paid to how companies manage their resources. The challenge is how best to reconcile economic efficiency with sustainability. When I joined the company of my father, Paul Wesjohann, as a trainee at just 16 years of age on 1 April 1959, sustainable management was already an issue for us. Of course, not yet in its present form. Over the years, sustainability has become an important cornerstone of our business activities. We quickly realised that we can only be fit for the future if we engage with a circular economy. This is the only way to ensure that the next generations can maintain and develop the group successfully. The PHW Group currently employs around 10,500 staff across Europe and we also bear responsibility for our approximately 1,000 contract farmers.

I, personally, am extremely grateful that all of my four children have joined the PHW Group. Together with our employees and contract farmers, we stand for the nutritional mix of the future. In the following pages, you will discover what we mean by this and which adjustments we shall be making in the future to further fine-tune the continuous improvement process.

Sincerely,
Paul-Heinz Wesjohann
Founder, PHW Group

A handwritten signature in black ink, reading "P. HW Wesjohann".

Our understanding of the nutritional mix of the future



Sustainable nutrition with protein-rich, high quality foods is and will remain the growing global challenge. Proteins are essential for a healthy, balanced diet and the maintenance of important bodily functions. Consequently, meeting the demand for proteins is imperative for any society.

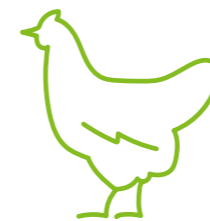
Our aim is to create a versatile offering for an informed and balanced diet. The foods on offer will be made from sustainable raw materials obtained from diverse sources. In this way, we will exemplify the nutritional mix of the future. Our understanding of this is that for

over 90 years, we have been acting with care for the sake of future generations by standing for high quality protein products and their (further) development as well as implementing a decisively circular concept in our economic business activities. We create synergies between our two business units of poultry and alternative protein sources. A healthy, balanced diet includes both animal and plant protein and we offer consumers both: top quality poultry products and alternative plant-based products that can contribute to a nutritionally optimised diet. Our aim is to make these products available to all sectors of the population.

“Our future essentially depends on our nutrition”

Paul-Heinz Wesjohann, 2015

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“Sustainability is not a sprint, but a marathon and one we are consistently pursuing”



Peter Wesjohann,
PHW Chairman of the
Executive Board

Central sustainability management as the overarching coordination centre of the PHW Group was founded back in 2009. The head, Katrin Metschies, looks after our sustainability endeavours together with PHW Chairman of the Executive Board, Peter Wesjohann. They also keep a watchful eye on the future, because we are a family business and intend to remain so. Together with our employees, our contract farmers and other stakeholders we are shaping the nutritional mix of the future.



Mr. Wesjohann and Mrs Metschies, a great deal has happened both economically and politically since your last sustainability report in 2019. Primarily, there was the corona virus pandemic and then the war in Ukraine, which have produced negative consequences for the entire world. What role did sustainability play in your company during this time?

Peter Wesjohann: Sustainability simply means future viability. It plays a decisive role for companies in both positive as well as challenging times. Sustainability must always be seen in the triple context of ecology, economy and social issues. Tight economic or geopolitical conditions require adjustment of short to medium term objectives, however, without losing sight of the long term aims.

Katrin Metschies: The economy as we knew it up to 2020 has changed dramatically due to various crises. Complete supply chains were disrupted and that meant availability was no longer a given. In terms of our sustainability management and our activities, our basic strategic direction has not changed. Individual priorities and weightings may have shifted accordingly, however, the fields have remained the same.

Peter Wesjohann: The fact is that we remain committed to our ambitious sustainability targets. Some fields can be postponed. Others, such as animal husbandry, origin and planning security as well as financing issues relating to our independent farmers cannot be postponed.

Can you give a concrete example of which fields have been given increased weighting?

Katrin Metschies: Even before the Ukraine war, we were already intensively involved with the field of renewable energy and we initiated a number of projects. However, due to the extreme volatility of the energy markets since Spring 2022, the subject of energy sovereignty suddenly moved to the top of our agenda. Our goal in this area is quite clear: we aim to be as self-sufficient as possible from the European energy market in the longer term.

Did the two crises alter your perception of sustainability?

Peter Wesjohann: In essence, our perspective on sustainability has not changed. Ever since the company was founded in 1932, sustainable management has been essential to our commercial success. We have confronted many challenges down the decades. Economic and social crises or political crises do not leave a company untouched. Although a crisis clearly reveals any weak points, it also affords an opportunity to make significant improvements to the business model. Thus far, we have seen in all critical times that our corporate foundation is stable enough to withstand any crisis. We have regularly invested and will continue to invest millions in our Group and with this, pave the way for the sustainable development of our three core business areas: poultry, alternative protein sources and health. After all, we employ around 10,500 staff across Europe and we also bear responsibility for some 1,000 dependent contract farmers. We shall continue to follow our credo of growth through diversity and vision. Sustainability is not a sprint, but a marathon and one we are consistently pursuing.

What is at the top of your sustainability endeavours?

Peter Wesjohann: At the top of our sustainability endeavours is the striving that in all our fields and associated projects we will be shaping the nutritional mix of the future.

Katrin Metschies: We aim to develop our business areas further to make them future proof. For this, we are pursuing a holistic approach and are prioritising the circular economy, putting it at the forefront of our business activities. A holistic view of sustainability target trade-offs is important. What we need are science-based and fact-orientated debates.

What have been your flagship projects since 2019?

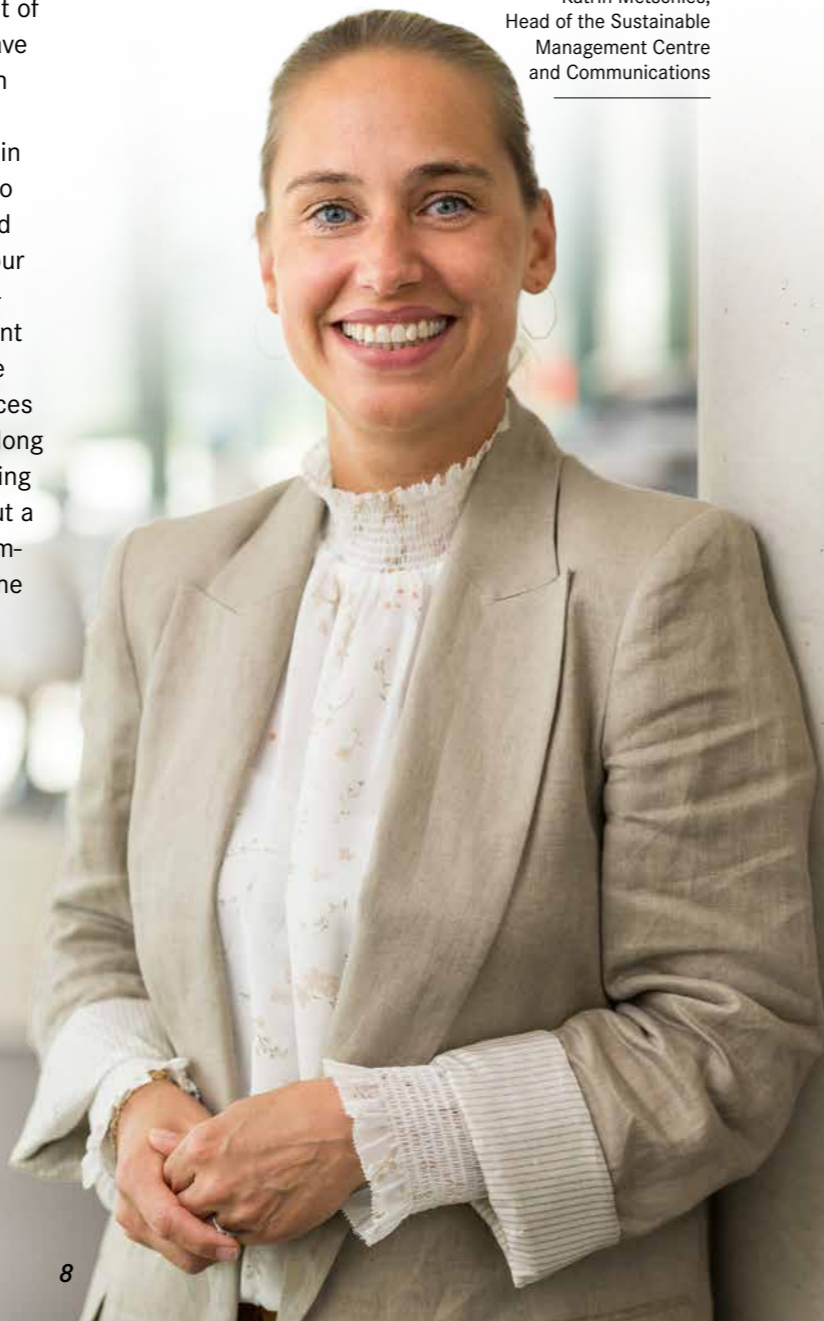
Katrin Metschies: In the past four years we have initiated and successfully implemented many important sustainability projects. We look at it as a bit of a jigsaw: many small pieces producing the bigger picture. A major endeavour for us is certification of all our sites according to the ZNU Standard “driving sustainable change”. Since 2019, a further three PHW sites have successfully passed the audit and up to now, all our subsidiaries have always passed their repeat certifications. One of our major considerations is to become more self-sufficient in the energy sector. We have even created an overarching coordination centre tasked with advancing this across our entire Group. In fact, in 2024, we shall be making available some 65 million euros across the Groups ringfenced for the energy project and we shall be investing this order of magnitude in this area year on year. With regard to our core business area, poultry, our animal welfare efforts have been and remain the lynchpin of our sustainable management. With the appointment of Felix Wesjohann to the PHW Executive Board we have further strengthened the vertical poultry integration within the family business. Above all, we are proud that we have been the leading supplier of chickens in housing level 3 from the very beginning. We are also aiming to gain a foothold in the turkey segment, and with the first turkeys installed in 2023, we expect our products to be available in the food retail sector towards the beginning of 2024. With the establishment of our PHW subsidiary, VTEC Ingredients GmbH, we reached a milestone in our alternative protein sources business, so that here, too, backward integration along the lines of that for the poultry business will be taking place. Additional milestones have been, to name but a couple by way of example, the expansion of our company health management and our commitment in the area of deforestation-free animal poultry feed.

How can politics support the sustainable development of companies like yours?

Peter Wesjohann: We need clear framework conditions and a legal framework. Without harmonisation and mandatory uniform requirements, market shifts can ultimately lead to less environmental protection, less animal welfare, less security of supply and lower quality standards. Important in this context are market economy considerations, combined with an assessment of the consequences. If these are not taken into account, the cost-intensive requirements

and the open international markets are likely to cause an exodus of domestic agricultural production. It is also important to take into account EU imports. If the enforcement of higher standards for foreign producers does not succeed, then processors and consumers could switch to presumably more favourable agricultural raw materials from foreign suppliers. This will lead to a decline in production and further relocation of production. Due to the domestic cost increases and the predominance of world market prices, the economic situation of the local food industry would continue to deteriorate. Ultimately, this means, in average, significantly worse animal welfare and carbon footprint. For this reason, we judge the European Union Green Deal to be a good and important initiative, however, what is missing – and this is crucial – is that this is mandatory for all participants in the Single European Market SEM. It is imperative that politicians make adjustments here.

Katrin Metschies,
Head of the Sustainable
Management Centre
and Communications



Green Milestones

2023

- First open-space photovoltaic system commissioned in Rechterfeld
- First electric HGV taken into service by BSG Logistik & Service GmbH
- First turkeys installed in a Privathof farm
- MEGA Logistik & Service GmbH trials biodiesel
- Publication of new Code of Conduct
- Complete implementation of the leadity software for digital management of our sustainability activities software
- IHK Oldenburg awards third PHW subsidiary WIESENHOF International GmbH the “Top Training” Seal of Quality

2022

- Netherland subsidiary successfully certified to ZNU Standard “driving sustainable change” ERASMUS+ SDGs Labs project completed
- Definitive deforestation-free supply chains for our mixed poultry feed with regard to soya and palm oil raw materials for poultry produced in Germany
- Four employees at our Rechterfeld site successfully obtained the IHK Specialist Professional Training certificate
- Launch of our PHW Family recruitment campaign
- BSG Logistik & Service GmbH expansion of its vehicle pool with the addition of 4 HGVs

2021

- Participation in global G7 Initiative on sustainable supply chains

2020

- We are among the 50 Sustainability & Climate Leaders
- MEGA Logistik & Service GmbH expands its car pool with the addition of a further 2 HGVs
- PHW HQ successfully certified to ZNU Standard “driving sustainable change”
- Launch of our plant-based GREEN LEGEND brand
- MEGA Tierernährung GmbH & Co. KG and MEGA Logistik & Service GmbH granted “Top Training” Seal of Quality by IHK Oldenburg
- Publication of our second Sustainability report
- With 6 of our production sites qualifying, we are compliant with the ZNU goes Zero climate initiative

2019

- PCF for poultry meat raised for 2nd time (2.2 kg CO₂e per 1 kg chicken meat, net slaughter weight)
- Oldenburger Geflügelspezialitäten GmbH & Co. KG successfully certified to ZNU Standard “driving sustainable change”
- Launch of the introduction of our group-wide digital resources management system

2018

- Launch of Alternative Protein Sources business unit headed by Marcus Keitzer
- Publication of our first Sustainability Report

2017

- New Food Laboratory Centre opened

2016

- WIESENHOF Geflügelwurst GmbH & Co. KG successfully certified to ZNU Standard “driving sustainable change”

2015

- Anhaltinische Geflügelspezialitäten GmbH successfully certified to ZNU Standard “driving sustainable change”
- The energy management throughout the entire value creation chain of the PHW Group in Germany is certified compliant with DIN EN ISO 50001

2014

- Märkische Geflügelhof-Spezialitäten GmbH, Geestland Putenspezialitäten GmbH & Co. KG and Donautal Geflügel-spezialitäten subsidiary branch of Lohmann & Co. Aktiengesellschaft successfully certified to ZNU Standard “driving sustainable change”

2013

- Nienburger Geflügelspezialitäten GmbH & Co. KG successfully certified to ZNU Standard “driving sustainable change” (plant was closed in 2019)

2012

- Introduction of energy management system certified to DIN EN 16001:2009

2011

- Presentation of Privathof farm concept for poultry farming

2010

- We are the first company in the poultry industry to bring in the PCF for poultry meat for the first time
- Since 2010, we have been sponsors and partners of the Centre for Sustainable Management (ZNU) of Witten-Herdecke University. In this context, we collaborated on the development of the ZNU Standard “driving sustainable change” pilot project

2009

- Establishment of our Sustainability Board
- For nearly 15 years, we have already been involved in alternative energy generation (e.g. solar panels on the roof of our farms)

2007

- Launch of our organic fuel from poultry oil (was terminated in 2018 as the tax on bio-fuels negatively impacted viability)

2004

- Bavarian Animal Protection award for pasture-raised chickens

2002

- Launch of organic poultry (terminated in 2015)

2000

- Launch of alternative housing concept poultry farming (pasture raising was terminated in 2004)

1997

- Establishment of Heinz Lohmann Stiftung
- Rejection of antibiotic performance enhancers, prior to statutory legislation

1996

- Rejection of the use of animal proteins in poultry feed

1995

- WIESENHOF introduces guaranteed origin declaration

We asked all our colleagues: “Responsibility at work – what impact does sustainable management have on your daily work?” Here are the replies:



” Working together for sustainability and future viability

The PHW Group is a third generation family business with a 90-year company history. Sustainability has been high on the PHW Group agenda for over a decade. Back in 2009, the PHW Group set up a sustainability team to deal with sustainable issues. I am proud to say that since my first day with the PHW Group many years ago, I have witnessed the amazing development of sustainability within the PHW Group. I would like to encourage you to join us in taking the path to sustainability. We have an opportunity to exert a positive impact on the environment, the economy and society. We can do this by using environmentally friendly technologies, reducing our ecological footprint and promoting socially responsible projects - every little action counts. Our common company history not only speaks for continuity, but also gives us the opportunity to establish a sustainable corporate culture that is not only important for us, but also for future generations. Let's use our experience to find sustainable solutions together and in this way positively shape the future of the PHW Group. I look forward to working with my colleagues and making a joint contribution to a more sustainable PHW Group fit for the future.

Sandra Hebbeln, Executive Board Secretariat and Deputy Head of the Sustainable Management Centre.

There are many areas in which we can make adjustments. For instance, don't leave your PCs on standby when you leave the office: always switch them off. Print on both sides of your paper and only switch on the aircon in short bursts.

Verena Lorenz, Controlling, Oldenburger Geflügelspezialitäten GmbH & Co. KG

It is the daily endeavour to look for optimisation opportunities within the framework of the Life Cycle Assessment process. With the introduction of a works transport system between home and workplace, we have massively reduced the use of private transport. 64 employees are transported by bus every day, so that in this way, we both act socially and support employees who don't have a driving licence. This also saves fossil fuels and energy, reducing climate-damaging exhaust gas emissions.

Daniel Herrmann, Procurist, Fläminger Entenspezialitäten GmbH & Co. KG

For me, it is important to use the resources available to us sustainably so that we don't limit the needs of future generations. For example, I want to set a good example for my children.

Thomas Oltmann, MD, Allfein Feinkost in Lohne

Careful action! All our activities and decisions must consider sustainability in order to have a healthy foundation for the future. It's quite simple. It begins with switching off the lights in the office every evening and ends with an assessment of the consequences of our daily actions. In brief, how do my actions affect the environment, my fellow human beings and the success of the company?

Daniel Gross, stellvertretender Marketingleiter der PHW-Gruppe, WIESENHOF Geflügel-Kontor GmbH

The GEPRO company slogan, “We go beyond” isn't just an empty phrase. We are not content to merely comply with the general quality standards. We begin a completely new value creation process at the end of the holistic value creation chain. We are the first company in the domestic animal poultry feed category in the whole of Germany entitled to supply certified ITW raw products. In addition to further ecological and economic areas in which we operate, we promote and sponsor sport and culture in the Oldenburg Münsterland region.

Björn Kleine Klausing, Marketing Manager, GEPRO Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG

Being sustainable at work goes beyond life in the office. Instead of driving in, I like to ride my bike to work whenever possible. Life is like a bike ride. You need to keep moving to maintain the balance - and at the same time, I like to be a role model for my son.

Anja Böhning, Assistant to the Executive Board, WIESENHOF Geflügel-Kontor GmbH

For me, sustainable management in my job means helping to ensure that decisions and actions have a positive impact on the environment and society.

Matthis Robke, working student department, Sustainability Management Centre, Lohmann & Co. AG.

I minimise paper wherever I can and avoid unnecessary printouts. If something really needs to be printed, then it is printed on both sides. Printer cartridges are used until the end and not replaced at the first notification. I use a company bike. The room temperature has been reduced in our room. We also use flyers to remind people to switch off the lights. Cardboard boxes and carrier bags are not disposed of, but reused. Hazardous substances have been reduced, and this saves costs and protects the environment, as do cleaning agents. Saving water through tap aerators. Tupperware instead of sandwich bags.

Pamela Behring, Technology and Sustainability Management department, Oldenburger Geflügelspezialitäten GmbH & Co. KG

We also work sustainably in our secretarial office. It starts with saving paper, which means that we only print out what is absolutely necessary and where possible, we print on both sides. Printouts that are no longer needed are used as scrap paper. But there are also ways to intervene proactively: switching off the lights when they are no longer needed and only switching on the air conditioning in the office when absolutely necessary.

Soraya Hertwig and Diana Siemermann, Secretarial office, Oldenburger Geflügelspezialitäten GmbH & Co. KG

Having completed my training as a professional HGV driver, I now drive a MEGA Logistik & Service GmbH lorry powered by LNG (Liquefied Natural Gas). Since 1 July this year we have been fuelling exclusively with bio-LNG.

Maximilian Kolk, Professional HGV driver, MEGA Logistik & Service GmbH

Sustainability is a multifaceted complex issue. We are currently planning the installation of a photovoltaic system on our company roof as well as running a project to extend the heat recovery system. Once again this year, we have been offering a flu vaccination program. We organised a health day in cooperation with the AOK. In 2024, we will introduce a document management system aimed at digitisation, reduction of paper storage, optimisation and updating of processes, accelerating the flow of information, as a result, fundamentally relieving the stress on employees in many areas.

Lars Wöfling, Commercial Manager/Procurist, Oldenburger Geflügel-spezialitäten GmbH & Co. KG

We invest in the development of our employees by offering them opportunities and training so that they can make the most of their skills. In this way, we ensure appropriate training so that our employees can achieve sustainable results. We endeavour to minimise the environmental impact and promote the use of sustainable resources. This applies both to our own actions and to the advice we offer to customers.

Edward Windhorst, Managing Director, GroenlandGroup

The demands on agriculture and poultry rearing are constantly increasing. Emotional considerations, practical feasibility and economic efficiency must be in harmony. At the same time, we must not lose sight of the goal of improving animal welfare in barns and coops and making it quantifiable. In my work, I try to reconcile the requirements of animal welfare organisations, customers and quality standard setters to further the common goal and make increasing animal welfare realisable in farm facilities.

Marie-Louise Hentschel, Head of Quality Management, BWE-Brütereier Weser-Ems GmbH & Co. KG



Animal welfare

„As the leading suppliers of housing level 3, our aim is to further develop poultry farming fit for the future“

Felix Wesjohann,
PHW Executive
Board Member



Improving animal welfare remains at the centre of socio-political debates and consequently also plays a key role in the establishment of sustainable agriculture. Years ago, we already introduced integrated systems for WIESENHOF poultry of German origin along the entire value chain. For more than 25 years, we have been involved in the development of alternative forms of animal husbandry and have been playing a pioneering role in the poultry industry. Before organic farming even became an issue, we had already launched organic poultry and pasture-raised chickens from free-range systems onto the market. Over 97 per cent of our German chicken production comes from animal welfare programmes that are in the farming level 2 or higher of the food retail trade. A key objective of our group of companies is the structural expansion of rearing level 3 and the intensification of products from rearing level 4. In addition, we are striving to expand farming system level 3 to a 100 per cent share of the PHW Group's total chicken portfolio for free range chickens (in Germany) by the end of 2040.

This target is contingent on the corresponding market demand and an appropriate uplift on the price as well as the creation of a suitable legal framework for animal welfare shed conversions and new buildings. Through our active participation in the German and European associations (e.g. ZDG, AVEC) and in various working groups we want to make animal welfare binding for all market participants. We must maintain Germany's position as an agricultural and food location. The course for the future of livestock farming must be set now.

In order to consistently continue our seriousness and to send our independent contract farmers once again a clear signal that we are a strong partner and wish to remain so, Felix Wesjohann was appointed to our Executive Board on 1 June 2023. He is responsible for the core business area of poultry and vertical integration, including animal poultry feed production. In this interview, he explains to us why poultry farming is valuable from a sustainability perspective and what we are doing in Germany to develop it and make it sustainable for the future.

Better animal welfare thanks to modern reception technology

Increasing animal welfare is our essential mission and includes every level within our vertical poultry integration from live animal rearing to slaughter. In summer 2023 we began work on the conversion of the live animal facilities at Anhaltische Geflügelspezialitäten GmbH in Möckern, Saxony-Anhalt. In concrete terms, the live animal reception area was extended by the addition of a 2,400m² shed. The centrepiece of the double digit million investment is the new reception technology that meets current animal welfare standards and is among the world's most state-of-the-art facilities. In future, animal unloading from the lorries will be fully automated in an air-conditioned environment, enabling even calmer animal unloading. The adjoining holding area is also being converted into a fully air-conditioned, dimly lit rest area that is also in line with the most stringent animal welfare standards. The stunning process will then take place using CO₂ and O₂. In addition to the improvements to animal welfare, sustainability is a major consideration in the new reception technology, which offers an additional advantage in that it is fully compatible with the system that has already been in use for a number of years at Oldenburger Geflügelspezialitäten GmbH & Co. KG in Lohne, Lower Saxony. Specialised livestock vehicles can be used flexibly to transport live animals to both sites alternately, thereby reducing empty runs and at the same time reducing the fuel needed per animal delivered.



Entertainment toys such as straw balls are standard in level 3 chicken sheds.

Mr. Wesjohann, what is the overall significance of national poultry breeding for your animal welfare endeavours?

Felix Wesjohann: It is extremely important to maintain poultry breeding in Germany. This is the only way we, as the PHW Group, can have a direct influence on the development of controlled animal husbandry in accordance with animal husbandry standards. We can sustainably monitor and certify the criteria and certificate them. We can no longer do this if we dismantle poultry farming in Germany. For more than 90 years and now in its third generation, the PHW Group has been active in the poultry industry and we have always been committed to a high level of quality of animal-friendly husbandry. We have successfully established new standards, such as 'Privathof', and we continue to work on existing standards and procedures in order to develop them further for the future. With this, we support our farmers and advise them, for example, with regard to building law or stable management. We see ourselves as a strong partner for our independent contract farmers and our aim is to be

recognised as such. On a positive note, it should also be emphasised that the food retail trade is also endeavouring to promote animal husbandry concepts. It is absolutely right that the subject is tackled from many angles at the same time.

Is sustainable poultry farming even possible in Germany?

Felix Wesjohann: One aspect of sustainability is the complexity of the requirements of the various stakeholder groups with the associated target conflicts and finding solutions. In terms of poultry farming, we have four forms of farming in Germany. Depending on the type, not only do the animals have more space available to them, but also the genetic and nutritional requirements are different. In particular, poultry reared in farming levels 3 and 4 undergo a more resource-intensive fattening process than poultry reared in level 2, which increases the CO₂ footprint. This illustrates once again that alternative husbandry concepts must be considered and assessed from the perspective of their sustainability. We, the PHW Group, operate a circular economy.

Another aspect of this is the further processing of output materials arising during the rearing process and which are very valuable. These are used for biomethane gas production, for example. However, above all, they are essential for the preservation of agriculture. Animal manure is fertiliser for plants. The alternative is synthetic fertiliser, but this is not to be advocated from a sustainability perspective, as it uses comparatively more resources. In short: animal husbandry is essential for plant-based agriculture. In fact, a great deal is also happening on the farms of our contract farmers for sustainable energy production. Many farmers began installing solar panels on barn roofs years ago. Around two thirds of our contract farmers have already become active in this area.

Different criteria play a role in the selection of food: according to the BMEL's 2023 report (Fed. Min. of Agriculture), 80 percent of respondents said they gave consideration to the farming conditions under which animals are kept. Is this reflected in your sales figures?

Felix Wesjohann: We are leading suppliers of level 3 poultry products and are aiming to further develop poultry farming. Recently, we have been operating at this level and also in level 4 in a larger niche. What we can generally observe is that consumers have become more aware of husbandry conditions over the

past few years. Our sales figures bear this out. In our group of companies, level 3 poultry farming accounts for approximately 10 percent and the number of our farmers has grown since the scheme's introduction in 2011 from 32 to the current figure of 63.

Privathof - A successful concept catches on

In 2011 we introduced the Privathof farm concept, initially in level 3 chickens. In August 2023 a further milestone was reached by the Privathof programme. The first turkeys were housed and the initial products became available in supermarkets at the beginning of 2024. We launched with seven farmers, and the audits and certifications were carried out by external examiners.

A harsh setback in the duck segment

We had to discontinue our duck hatching egg production in Germany at the end of 2022. This affected our hatchery as well as the parent stock in Bad Belzig and parent stock rearing in Kloster Zinna. Around 7 million chicks per year were hatched at the site and around 45,000 parent stock were kept. We very much regret this step. Unfortunately, the ongoing cost increases - particularly in the areas of energy and poultry feed - as well as the intensified competition from suppliers outside Germany, made it impossible for us to continue to work in a sustainable and future-proof manner. However, we have retained the Bad Belzig site. This is now used exclusively for duck fattening. The first animals were already housed in February 2023. The ducks are kept at rearing level 2 on natural bedding floors with fresh straw added daily. The chicks are now sourced from other European countries. All applicable animal welfare standards and voluntary requirements specified by the QS and Animal Welfare Initiative (ITW) for quality systems are of course also complied with in Bad Belzig.

However, the majority of consumers are still very price-conscious when it comes to purchasing. In many cases where farmers are fattening chickens, we could switch to level 3, but the political framework conditions for this are not currently given. That is the reason why we have not yet achieved our sustainability target of producing poultry sausage from level 3 farmed poultry.

According to the BMEL 2023 nutrition report 85 percent of respondents would like to see information on the packaging about the farming conditions of the animals from which the food comes. What is the PHW Group's position on this?

Felix Wesjohann: We introduced the guarantee of origin back in 1995. WIESENHOF stands for 100 percent poultry from Germany. The fresh and frozen WIESENHOF packaging identifies the farm or cooperative the meat comes from. On our Privathof packaging, we also provide information on the standards applying to rearing category 3. Open and transparent communication with consumers is very important to us.

So does this mean you are in favour of animal rearing labelling for poultry?

Felix Wesjohann: Yes, we are generally in favour of mandatory animal husbandry labelling for poultry. But it must apply throughout Europe. If it only applies in Germany, this will lead to distortions of competition and structural shifts in the market. In order to make poultry farming sustainable in Europe and consequently, also in Germany, it is important that we create a legal framework at European level that applies equally to all member states. As already mentioned, this is the only way we can have a direct influence on the development of controlled animal husbandry in line with appropriate animal husbandry standards. If only individual countries pursue higher standards, this ultimately has a negative impact on the economic viability of farmers in the respective countries. It leads to an increase in imports, resulting in domestic products not being marketable. Ultimately, on average, the result is a reduction in animal welfare, less food security in Germany and also reduced sustainability. This must not be allowed to happen. We need to move forward and develop animal welfare concepts within a harmonised EU-wide legal framework.



Chick rearing at Privathof farms takes around 42 to 44 days.



Every Privathof farm chicken shed has an outdoor climate area.



Every Privathof chicken shed has a source of daylight.

Husbandry forms

Comparing chickens, turkeys and ducks



Husbandry form	Conventional Europe**	Conventional German	QS (HF1)	Animal welfare initiative (HF2)	Privathof (HF3)	Organic (HF4)	Beter Leven 1 Star	Donautal Premium
Stocking density:	Up to max. 42 kg/m ²	Up to max. 39 kg/m ²	Up to max. 39 kg/m ²	Up to max. 35 kg/m ²	With additional outdoor climate area: max. 29 kg/m ² Without additional outdoor climate area: max. 25 kg/m ²	max. 21 kg/m ² max. 4800 animals/shed	max. 25 kg/m ² on floor space (incl. outside climate area)	30 kg/m ² +10% with raised levels
Breed:	conventional	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	slow growing	slow growing	slow growing	conventional, robust and healthy breeding stock
Rearing period:	no regulation	ca. 30–40 days	ca. 30–40 days	ca. 30–40 days	ca. 42–44 days	Minimum slaughter age 81 days or defined for slow long growing breeds	min. 56 days	32–40 days, min. 30
Open air farming:	none	none, controlled day/nighttime rhythm	none, controlled day/nighttime rhythm	none, controlled day/nighttime rhythm	Outside climate area or comparable indoor shedsystem	Outside climate area and run area	Outside climate area	Outside climate area or open shed system
Poultry feed volume:	no regulation	no regulation	QS approved/recognised poultry feed	QS approved/recognised poultry feed, Non-GMO*	QS approved/recognised poultry feed, Non-GMO	Poultry feed from own ecological cultivation, min. 30% from own farm or from the region, Non-GMO	GMP+ certified poultry feed (from 11 LT 70% cereal content)	Non-GMO
Shed design:	no regulation	Loose litter bedding for pecking, scratching, some areas suitable for dust bathing, daylight source	Loose litter bedding for pecking, scratching, some areas suitable for dust bathing, daylight source	Objects for picking, loose litter bedding for picking, scratching and areas suitable for dust bathing, daylight source	Outside climate area, picking objects, straw balls and perches, Loose litter bedding for picking, scratching and areas suitable for dust bathing, daylight source	Loose litter bedding, outside climate area with run, objects for picking, perches	Outside climate area, loose, dry litter bedding for scratching, picking and dust bathing, daylight source, straw balls as structural elements, grains for picking (entertainment material)	Loose litter bedding, straw balls, picking objects, perches, outside climate area or open coop with daylight source
Animal health monitoring:	no regulation	Participation in the national antibiotic monitoring system	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in the national antibiotic monitoring system, max. 3 treatments per year	Health monitoring plan incl. antibiotic reduction strategy and slaughter findings data collection	Participation in the national Antibiotic monitoring system and slaughter findings data collection

The criteria listed relate exclusively to the associated programme requirements.

* Non-GMO soya is not prescribed for these rearing concepts. However, the PHW Group deliberately uses non-GMO soya and thus exceeds the applicable requirements and legal specifications

** EU Directive 2007/43 EG



Husbandry form	Conventional Europe	Conventional Germany (voluntary husbandry agreement)	Stallhaltung (HF1)	StallhaltungPlus (HF2)	Außenklima (HF3)	Premium (HF4)
Stocking density:	no regulation	Hens: max. 52 kg/m ² Cocks max. 58 kg/m ²	Hens: max. 52 kg/m ² Cocks: max. 58 kg/m ²	Hens: max. 48 kg/m ² Cocks: max. 53 kg/m ²	Hens max. 37 kg/m ² Cocks: max. 41 kg/m ²	max. 21 kg/m ² max. 2500 animals/coop
Breed:	conventional	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	Slow growing or conventional breeding stock with minimum slaughter age	Slow growing or conventional breeding stock with minimum slaughter age
Rearing period:	no regulation	Hens: ca. 112 days Cocks: ca. 145–150 days	Hens: ca. 112 days Cocks: ca. 145–150 days	Hens: ca. 112 days Cocks: ca. 145–150 days	Hens: min. 100 days Cocks: min. 140 days	Hens: min. 100 days Cocks: min. 140 days
Open air farming:	none	None, natural ventilation, controlled day/nighttime rhythm	None, natural ventilation, controlled day/nighttime rhythm	None, natural ventilation, controlled day/nighttime rhythm	Outdoor climate area	Outdoor run for at least one third of the lifetime
Poultry feed volume:	no regulation	no regulation	QS approved/recognised poultry feed	QS approved/recognised poultry feed Non-GMO*	QS approved/recognised poultry feed Non-GMO	Poultry feed from ecological cultivation, min. 30% from Own farm or from the region, Non-GMO
Shed design:	no regulation	Objects for picking, fresh litter bedding for picking and scratching (entertainment material) and areas suitable for dust bathing, natural daylight source	Objects for picking, fresh litter bedding for picking and scratching (entertainment material) and areas suitable for dust bathing, natural daylight source	Objects for picking, fresh litter bedding for picking and scratching (entertainment material) and areas suitable for dust bathing, natural daylight source	Outdoor climate area, objects for picking, fresh litter bedding for picking and scratching (entertainment material), natural daylight source	Outdoor run, straw balls, Additional litter bedding of straw, wood chips, sand or peat over at least one third of the surface area of the coop
Animal health monitoring:	no regulation	individual farm health monitoring plan and participation in national antibiotic monitoring system	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in the national and QS antibiotic monitoring system and slaughter findings data collection	Participation in national antibiotic monitoring system, max. 3 antibiotic treatments per year

The criteria listed relate exclusively to the associated programme requirements.

* Non-GMO soya is not prescribed for these rearing concepts. However, the PHW Group deliberately uses non-GMO soya and thus exceeds the applicable requirements and legal specifications



Husbandry form	Haltungsform					
	Conventional Europe	Conventional Germany (voluntary husbandry agreement)	QS (HF1)	Animal welfare initiative (HF2)	Privathof turkeys (HF3)	Organic (HF4)
Stocking density:	Up to 30 kg/m ²	max. 20 kg/m ²	max. 20 kg/m ²	max. 20 kg/m ²	max. 20 kg/m ² max. 25 kg/m ² , if constant outdoor access is a given	max. 20 kg/m ²
Breed:	conventional	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	conventional, robust and healthy breeding stock	slow growing
Rearing period:	no regulation	no regulation (Standard 39–42 days)	ca. 39–42 days	ca. 39–42 days	min. 42 days	min. 49 Tage
Open air farming:	none	none, natural ventilation, controlled day/nighttime rhythm	none, natural ventilation, controlled day/nighttime rhythm	none, natural ventilation, controlled day/nighttime rhythm	Open shed frontage or constant outdoor access to outdoor climate area or outside run for the entire rearing time	Outdoors for at least half the lifetime
Poultry feed volume:	no regulation	no regulation	QS approved/recognised poultry feed	QS approved/recognised poultry feed	Non-GMO poultry feed, min. 70% cereal grain content	Non-GMO poultry feed, min. 25% produced by the farm or in the region, min. 75% cereal grain content
Shed design:	no regulation	Fresh flooring provided several times per week for picking and for aging (entertainment material)	Fresh flooring provided several times per week for picking and for aging (entertainment material)	Fresh litter flooring daily, also organic entertainment material in racks or nets and added water supply in approved troughs allowing immersion of the entire head, natural daylight	Fresh litter flooring daily, also organic entertainment material in racks or nets and added water supply in approved troughs allowing immersion of the entire head, natural daylight	Fresh litter flooring daily, also organic entertainment material in racks or nets and access to outdoor water (pool, stream, lake)
Animal health monitoring:	no regulation	Animal health programme	Animal health programme, participation in QS antibiotic monitoring, slaughter findings data collection	Animal health programme, participation in QS antibiotic monitoring, slaughter findings data collection	Animal health programme, participation in QS antibiotic monitoring, slaughter findings data collection	Animal health programme, participation in QS antibiotic monitoring, slaughter findings data collection

The criteria listed relate exclusively to the associated programme requirements.

 **Chickens**



Rearing takes ca. 30–40 days.



Chicks have no outside access but there is a controlled day/nighttime rhythm.



Shed design included, for example, objects for picking.



Stocking density max. 35 kg/m².

 **Ducks**



Stocking density max. 20 kg/m².



Ducks are provided with organic entertainment material.



Access to water is standard and supplied in approved troughs allowing immersion of the entire head.



Rearing takes ca. 39–42 days.

 **Turkeys**



Stocking density for hens max. 48 kg/m² and cocks max. 53 kg/m².



Rearing period for hens ca. 112 days and cocks ca. 145–150 days.



Drinking water is analysed at least once a year.



Picking objects are standard.

 **Turkeys**



Organic entertainment material is standard.



Privathof turkeys have access to an outdoor climate area.



Rearing period for hens min. 100 days and cocks min. 140 days.



Stocking density for hens max. 37 kg/m² and cocks max. 41 kg/m².



All the production stages of the chicken and turkey specialties take place in Germany and predominantly in our own company.

As a family business with strong regional roots, we take responsibility for our agricultural partnerships. In order to continue to sustainably strengthen Germany as an economic location, we are committed to the preservation and further development of poultry farming in Germany. Our WIESENHOF brand stands for 100 percent poultry from Germany – a central goal on our sustainability agenda. Our approximately 1,000 independent contract farmers raise chickens, turkeys and ducks for us throughout Germany in controlled barns and sheds. Near-natural conditions are created, among other aspects, through the regulation of the climate in barns and sheds, natural bedding floors and consideration given to the natural biorhythm of the animals by maintaining nighttime rest periods and the best possible care of the animals. In our Group,

the process practically starts with the egg: the hens lay hatching eggs every day on the parent farms, which are then brought to our hatcheries. After 21 days or so, the chicks hatch. Both the female and male chicks are then taken to contract farms for rearing. Our contract farmers are the cornerstone of our vertical poultry integration. “Our goal is a communication at eye level and we are pursuing equal partnerships” says Theile Funke, Managing Director of BWE Brüterei Weser-Ems GmbH & Co. KG., adding: “We have been working with many of our farmers for more than 20 years. We place a high value on long-term partnerships.” BWE Brüterei Weser-Ems GmbH & Co. KG is responsible for the whole of the fattening process within our Group. Our field force representatives are regularly on site with farmers as their practice partners.

“Our goal is a communication at eye level and we are pursuing equal partnerships”

Theile Funke,
 MD, BWE Brüterei Weser-Ems
 GmbH & Co. KG



“I think it is great that we work together on improvements”

Rainer Stevens, born in Emsland, has been a contract farmer since 2006 and has been fattening chickens in farming level 2, with space for around 80,000 birds. The farm was first mentioned in a document dating back to around 1300. Until they switched to poultry fattening, the Stevens family farmed grassland, arable farming and had 40 dairy cows.

Mr. Stevens, why did you switch to poultry fattening at the time?

The idea of switching to broiler fattening took shape around 2004/5. My neighbour was already working with WIESENHOF and it was through him that I first became aware of this branch of agriculture. The application for the two sheds was uncomplicated. The first was built immediately, so that we could start in 2006. This was followed by a second shed in 2008.

In your opinion, what have been the biggest changes in poultry farming in the past twenty years?

On the one hand, there were many technical innovations that have produced a very positive working environment. And on the other, a great deal has happened in the area of animal welfare. In my view, these are the two main changes. But both have only been possible because we have invested a lot in the farm. However, we can only invest in sustainable animal health and sustainable livestock farming for the future if we achieve the returns.

Have there been economic phases when you've found it difficult?

The post-corona period was not easy for us economically due to the poor market situation. Returns had already fallen during the coronavirus period, even though sales had remained the same. But we have been very strongly affected now, with the war in Ukraine and the exploding poultry feed prices. Yet it isn't always the economic conditions that give us a hard time. When the animals are fine, we're fine, but there was a short period when we had a number of problems with animal health. However, with the help of our regular vet and the field staff representatives we were able to resolve the problems quickly.

Would you recommend the Group as partners?

I certainly would. I'm very happy with my partners and know that I have a strong partner at my side. I think it's great that we work together on improvements.

Can you give some examples?

We are currently testing a bedding additive to reduce ammonia in the barns. We are involved in the testing process and I appreciate the open and honest way in which these subjects are dealt with.



“For our business the partnership is currently a good fit”



Fabian Freese has been a partner farmer since 2011 and now has three sheds with 100,000 broiler places. He raises his poultry in housing level 2. He became aware of the PHW Group through an ad in an agricultural trade magazine.

Mr. Freese, you began with poultry farming in April 2011. You started with 2 sheds and in 2016 you submitted a planning application for a third and obtained the licence three years later. But even in the years since, a great deal has happened on your farm for instance, you have installed a photovoltaic system and invested in a heat exchanger. How do you rate the past few years?

I've been raising poultry for WIESENHOF for a little over ten years now. Together, we have experienced some highs and mastered some challenges. Let's start with the sheds. The first two building applications were fairly straightforward, but for the third planning application, I had to draw heavily on the expertise of the BWE Brüterei Weser-Ems. They gave me sound advice and supported me. I also received support with the switch to the heat exchanger as BWE Brüterei Weser-Ems was able to offer a good price with the group terms for interested parties. We have invested a lot in the past years because I want to keep the farm fit for the future. This also includes the use of alternative energy. Especially with the high energy prices these days, it has already been advantageous to invest in a photovoltaic system and we will also be

saving a great deal of energy with the heat exchanger. The use of the heat exchanger also has a positive effect on the litter we use for bedding, for example, as it remains drier. And it's good for animal health.

What do you value most highly in the partnership?

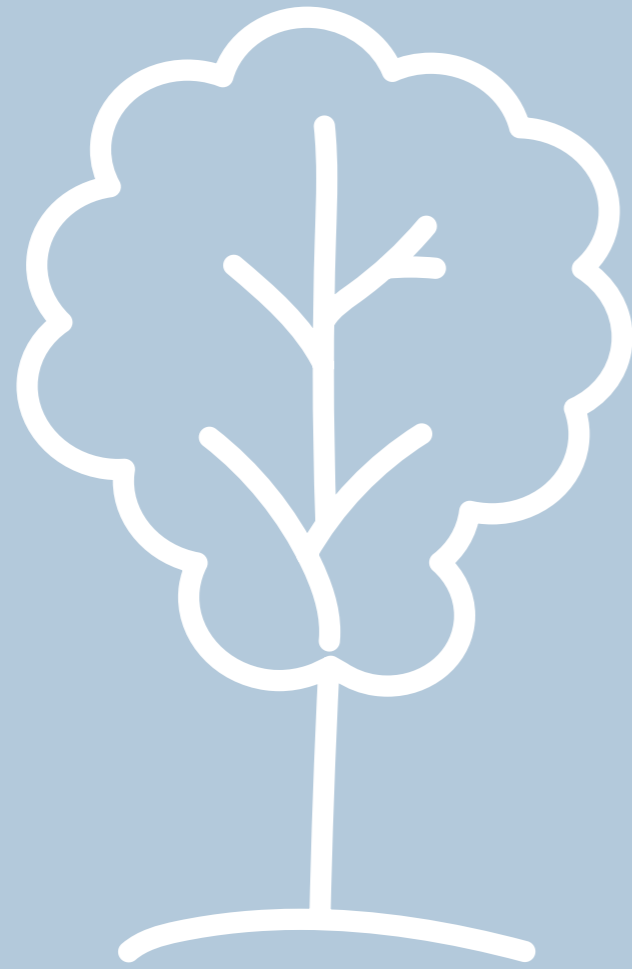
There are three things: first, I think it's good that there are annual plans. It means that I already know in January when I will be moving my stock in and out of the sheds in winter, for example. Planning security is very important to me. Second, the staff are nice and flexible. Problems are solved quickly and easily. What's more, someone is always available - no matter what time it is. You mustn't forget that we farmers work directly with the animals and decisions cannot always be postponed. I want my animals to be well day and night and if there are problems, then they have to be resolved straight away. I particularly appreciate the fact that, regardless of whether it's the field service or the managers, they all deal directly with me to find solutions. And third, I find it good that we can use different feeding concepts. In addition to poultry fattening, I also grow wheat and I can also feed my own cereal to my animals. I love this freedom and flexibility.

Were there any situations when you were dissatisfied with BWE Brüterei Weser-Ems?

Not dissatisfied in that sense. But the fire in Lohne had really affected our nerves at the time. We always delivered our poultry to Lohne for slaughter. Short transport route, everything was always uncomplicated and went smoothly. But after the fire, we had to have our poultry slaughtered in the Netherlands. The entire logistics process was exhausting and sometimes erratic. But that wasn't down to the BWE Brüterei Weser-Ems. We were just happy that we were able to continue the entire fattening process. Now we are delivering to Lohne again and everything is back to as it used to be - we also really appreciate that.

Would you recommend the PHW Group?

For our business the partnership is currently a good fit. Of course, we also have alternatives, but we are satisfied and why change anything when they're going well.



Environmental protection

“We are aiming for more self-sufficiency in the energy market”

Stefan Laabs,
Head of Energy Projects



Since 2016 we have been operating holistic energy management certified to DIN EN ISO 50001. We are continually working on improving our energy related performance in terms of energy efficiency, energy use and energy consumption. Independent outside organisations can testify to this.

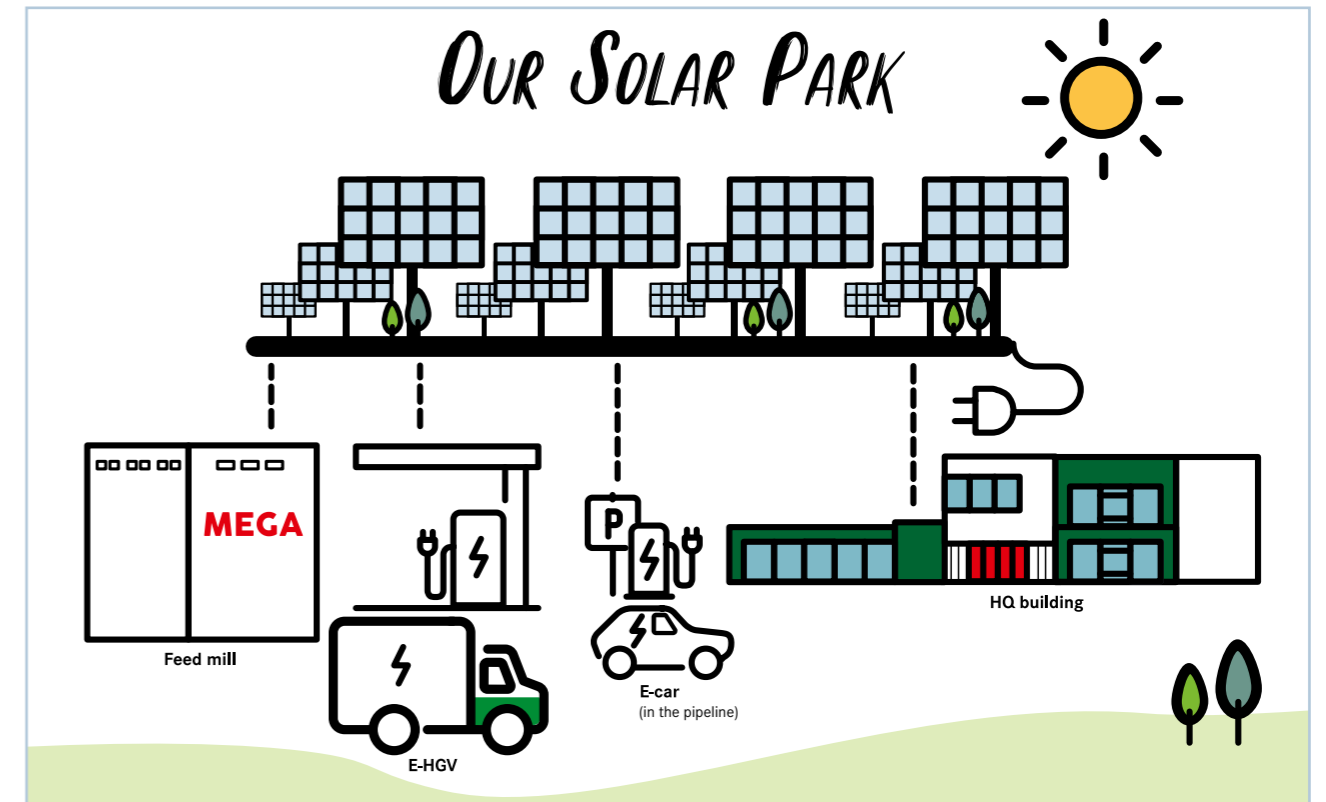
As part of our climate strategy, we pursue a holistic approach and have been working intensively on renewable energies. The key steps here are on the one hand, avoiding and reducing CO₂e emissions and on the other, using green electricity. By promoting renewable energy, we are making a decisive contribution to the successful transformation into a more sustainable company using renewable energy resources. By 2040, we want to achieve climate neutrality at all PHW Group German production sites and in this way be an industry pioneer in climate protection. This is complemented by our interim goal of reducing unavoidable emissions at our German production sites for chicken, turkey and sausage specialities from Scope 1 and Scope 2 by 30% by 2030 compared with base year 2019/2020. We and all our employees are working continuously on these climate targets.

Photovoltaic (PV) systems currently represent a promising source of renewable energy for us: in July 2023, a 4.4 MWp ground-mounted PV system was installed and commissioned on a total area of around 21,000 m² – this is about the size of three football fields – in a commercial area in front of our HQ in Rechterfeld. The developer for the project was our subsidiary MEGA Tierernährung GmbH & Co. KG, who generate around one third of the total power consumption per annum.

The PHW HQ building is also supplied from this energy source. The annual electricity generation covers the equivalent of around 1,000 3-person households. The PV system saves around 1.5 million kg CO₂e emissions each year. “We are aiming for more self-sufficiency in the energy market - that is our Group's goal. The production of solar power, for example, does not require any fossil fuels and is a source of electricity that is independent of the energy market. The installation of photovoltaic systems is therefore an important factor in making production sites fit for the future. Photovoltaic technology now represents a reliable and independent source of electricity for companies. A mix of wind and other renewable energies such as geothermal energy is becoming increasingly interesting,” says Stefan Laabs, Head of Energy Projects at the PHW Group. By the end of 2025, we intend to realise further projects at the PHW sites in Lohne, Zerbst, Dannenberg and Laage. In addition to PV systems, we are currently also making successive investments in the construction of combined heat and power plants and biogas plants. In this way we are sticking to our sustainability target: that one third of the total energy consumption of PHW Group German sites will be sourced from our own renewable energy plants by 2035. This goal is dependent on the authorisation procedures and individual framework conditions governing construction of such facilities at the individual operating sites. It is not only the large energy projects that we are pushing. We also have smaller-scale projects that also regularly conserve energy resources at PHW sites. For example, Nutrilo GmbH in Cuxhaven switched to LED lighting in its production areas in 2023, thereby saving 83,360 kWh per year.

With flora and fauna in mind

A type of seed foam with short-growing grasses and clover was sown under the modules. Flower seeds were also sown in the area outside the module. The planting was carried out to prevent potential erosion. Sheep have been grazing there since autumn 2023.

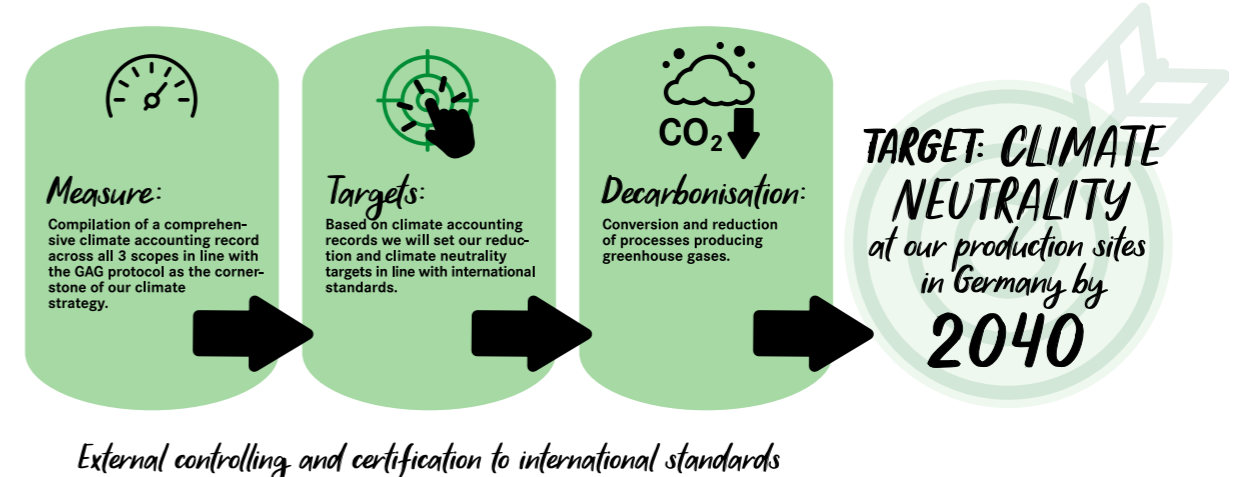


OUR CLIMATE STRATEGY AT GROUP LEVEL

By 2040, we aim to achieve climate neutrality at all of the PHW Group's German production sites and thus be an industry pioneer in climate protection. In 2024, we will provide around 65 million euros for energy projects in order to be more self-sufficient in the energy market and in this way ensure the future viability of our production plants. We aim to invest a similar amount in this area every year.

In order to achieve the target by 2040, we need major innovative technological advances in addition to our own efforts. We are currently refraining from using offsetting as an instrument until standardised and transparent regulation – ideally at EU level – and quality assurance systems for offsetting projects are in place.

By 2026, we will develop a science-based target in line with the Science-Based Targets Initiative (SBTi) in line with our business model and corporate strategy and the Paris Climate Accords.



“Consideration of other impact categories, such as water consumption and land use give us more information on the ecological performance of our products”

The PHW Group has repeatedly analysed the CO₂e footprint for the types of poultry produced in its subsidiaries. Decisive for the size of the CO₂e footprint are the amount of CO₂e emissions associated with the production of the feed needed per unit of meat. The most recent figure for the PHW Group for chicken meat is 2.2 kg CO₂e per 1 kg of chicken meat (net carcass weight). “Further investigations in their current form will not give us a great deal of new insights in the future. For this reason, we would like to take the next logical step of establishing a Product Environmental Footprint (PEF),” says Dr Heinrich Dröge, CEO of the PHW Group. “With the PEF, it is not just the CO₂e emis-

sions of a product that are included in the accounting. Consideration of other impact categories, such as water consumption and land use give us more information on the ecological performance of our products.” It was planned that an initial corresponding survey for chicken from conventional and alternative farming categories as well as for vegan products should be carried out by the end of 2024.

We remain fundamentally committed to our sustainability target, but we are already concerned that we will not be able to realise these extensive calculations in the envisaged timeframe. The reason for this is

that a standardised basis for calculation is still being discussed. We need binding requirements for the methodology in order to be able to communicate the collected data to the outside world. Otherwise, we will be confronted with the same dilemma as we are in trying to define “climate neutral”. “However, we are currently at an early stage of science here, with the

consequence that there is currently no standardised procedure for any of these calculations. Life cycle assessments are becoming increasingly important in the context of climate change and in our decision-making. It is therefore essential for politicians to define the binding requirements for this type of accounting process promptly,” explains Dr Heinrich Dröge.

Dr Heinrich Dröge,
PHW Executive Board



“A medley of more climate-

With our two logistics companies MEGA Logistik & Service GmbH and BSG Logistik & Service GmbH, we have been striving for many years to find practicable climate friendly transport solutions and are therefore constantly trialling the use of new technologies.

We are fine-tuning a number of processes at the same time. Alternative drive options are exciting for us, not only from a technological perspective, but also in terms of the potential CO₂e savings, which are very important to us. “With the introduction of the first fully electric tractor for heavy goods transport we have taken an important step towards the future, because the new FH Electric from Volvo Trucks makes emission-free delivery transport possible and renders the logistics industry a good deal more environmentally conscious. This will save round 50 tonnes of CO₂e

per year. We are considering further new acquisitions,” says Torsten Plagge, Managing Director of BSG Logistik & Service GmbH. When collecting to tractor in March 2023, he received the “ELECTRIC TRUCK PIONEER” award from GTT Greiwing for his pioneering spirit in the heavy goods transport sector. The electric truck covers around 300 km/day and transports refrigerated goods. It is charged at the PHW subsidiary Oldenburger Geflügelspezialitäten GmbH & Co. KG in Lohne, which has the charging infrastructure on the premises.



Since Spring 2023, the 40-tonne truck has been an integral part of the BSG Logistics & Service GmbH fleet

MEGA Logistik & Service GmbH is also enthusiastic about electromobility and plans to use electric lorries for feed logistics by the end of 2024. Adrian Heuer, Managing Director of MEGA Logistik & Service GmbH, is currently planning two e-trucks. These will then be charged with the electricity produced by the PV system at the Rechterfeld site, which has been in operation since July 2023. “Depending on the time of year, we will then drive completely CO₂e neutral,” says Adrian Heuer. Currently, e-trucks are still exempt from the toll. “In order to continue investing in this area, politicians need to provide planning certainty. This is also still lacking in the liquid gas sector too,” adds the Managing Director of MEGA Logistik & Service GmbH. From 1 January 2024 they will no longer be exempt from the toll. Our Group currently runs 6 LNG HGVs. Managing Director Adrian Heuer is planning to acquire more HGV’s running on

Adrian Heuer, MD, MEGA Logistik & Service GmbH

friendly transport solutions”

BioLNG in order to generate CO₂e savings. He justifies his decision with the fact that the fuelling station network is still growing and the driving range of LNG trucks is comparable to that of diesel.

Another alternative drive is hydrogen. Here, Torsten Plagge adds: “We don't want to turn our backs on hydrogen technology, but at the moment it's a pipe dream as the infrastructure simply isn't there. What's more, the technology is not yet ready for the market.” Since spring 2023, MEGA Logistik & Service GmbH has also been testing biodiesel. This is a synthetic fuel produced from organic residues and waste materials, such as used vegetable fat. According to the manufacturer, the biodiesel should emit up to a quarter less CO₂e - with the same fuel consumption.

In addition, when purchasing new HGVs, the focus is on more modern compressors, which are far more economical as they consume less diesel. Both PHW subsidiaries are also endeavouring to avoid empty runs as far as possible and are aiming to maximise route management. In addition, the first LANG truck has been in operation at BSG Logistik & Service GmbH since 2023. The vehicle is approximately 25 metres long and has 51 parking spaces.

“A medley of more climate-friendly transport solutions has been developed and tested by both MEGA Logistik & Service and BSG Logistik & Service over the years and these have been assessed for their feasibility. We will continue going after further CO₂e reductions in the transport of our animal feed and food products and will continue to evaluate the feasibility of new technologies on offer to us,” says Torsten Plagge.



400 litres of biodiesel is the capacity of the tank

“When we found out that the Felta petrol station at our HQ in Visbek-Rechterfeld will be offering biodiesel, we didn't think twice about it and decided to test the fuel. One lorry in our fleet is currently fuelled with the more climate-friendly alternative and we're checking whether the driving characteristics remain the same,” explains Adrian Heuer. The PHW subsidiary transports poultry feed to farmers. In order to save fuel on the daily journeys, a premium system, for example, was introduced a few years ago to promote fuel-efficient.

Torsten Plagge, MD, BSG Logistik & Service GmbH

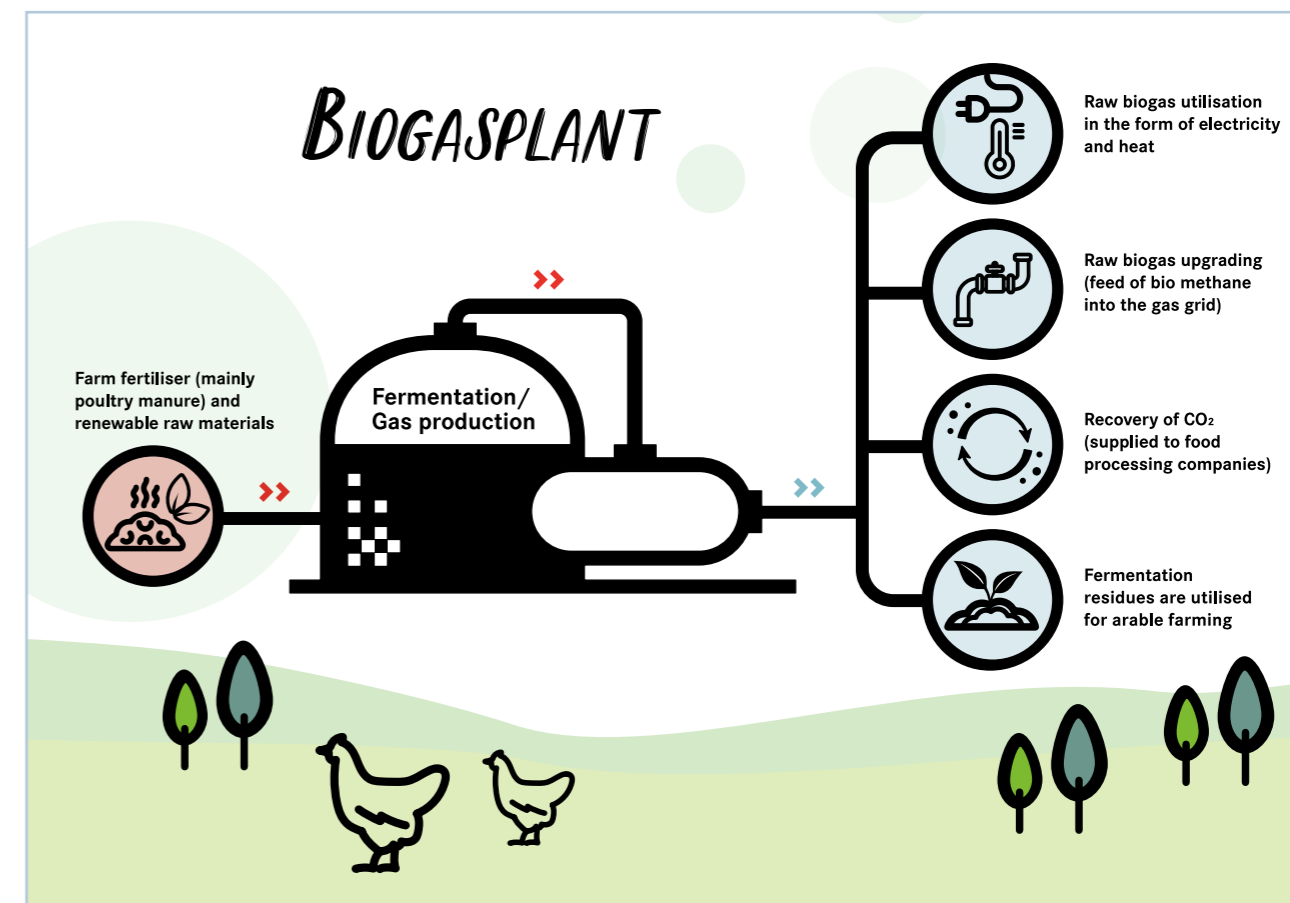
“Investing in climate-friendly technologies is more important now than ever”

Anhaltinische Geflügelspezialitäten GmbH in Möckern has been in a planning and construction phase since spring 2023 for a replacement biogas plant. There has been a biogas unit on site since 2002 and this is scheduled to be replaced by a new, modern facility. In the first expansion stage, biomethane production is planned and this will primarily utilise the flotation cells produced within the PHW Group as well as the those produced by the from the company's own poultry farms. The biomethane will be fed into the existing Avacon gas network in Möckern. The volume of energy obtained from the biogas plant is so high that the existing abattoir at the site can be almost completely supplied with heat and electricity. Also submitted is an application for high-purity CO₂ gas recovery and liquefaction, to be used in the stunning process at the abattoir in Möckern and at our other abattoirs. The previous supply of heat to the boiler house and the households connected to it will continue, even when the new plant is built. In addition, equipping the roof of the new live animal shed with photovoltaics on suitable areas is also planned. This makes a great deal of sense because the abattoir requires a lot of electricity for cooling, especially

during sunny periods. “With the planned new plant, we are making an important contribution to energy generation from renewable byproducts from poultry meat integration and as a result, ensuring a reliable supply of energy to the Möckern site. This establishes a high rate of selfsufficiency largely independent of the energy market conditions, which can sometimes be volatile. It can also make a contribution to reducing the energy shortage in Germany and to improving the environment. However, this step is also very important for the overarching security of our Group,” explains Michael Schönewolf, Managing Director of Anhaltinische Geflügelspezialitäten GmbH. He believes it is important that, in addition to future biomethane production and the subsequent own utilisation of heat and electricity enshrined in the overall energy concept, the town of Möckern should also continue to benefit. “We will continue to provide energy for Möckern's heating requirements: the amount of energy for the town of Möckern will not change,” assures Michael Schönewolf. The necessary application in accordance with the Federal Immission Control Act (BImSchG) has already been submitted to the competent administrative court of the state concerned.

The replacement plant will be absolute state of the art. All input materials required for biogas production will be stored on site. The closed preparation and storage hall will also be equipped with an exhaust air purification system and the fermentation residue will be stored in gas-tight containers. “In addition to the repowering project in Möckern, PHW subsidiary NDEnergie GmbH & Co. KG is planning a methane gas plant in Bohmte am Hafen Wittlager Land near Osnabruck. It is scheduled for commissioning towards the end of 2024/beginning of 2025. Investing in climate-friendly technologies is more important now than ever in terms of energy sovereignty. This biomethane gas plant will make a significant contribution to the future viability of Germany's energy supply and in particular, in the Wittlager region by closing the nutrient cycle in an environmentally friendly way and with the CO₂e neutral generation of approximately 80 million kWh of biomethane per year. This, plus the added recovery of liquefied CO₂ will lead to a not insignificant reduction of CO₂e emissions,” explains Rainer Aschenbroich, Managing

Director of NDEnergie GmbH & Co. KG. With 80 million kWh of pure gas per year, around 7,000 households in 80m² residential units or 5,000 households in 120 m² units can be supplied with energy. The processing of regionally produced manure and slurry into biomethane is highly environmentally friendly and efficient. No fossil fuels are required in the production of gas from biomethane. This energy source can be used for the supply of electricity and heat as well as fuel for LNG vehicles. The standard fermentation residues are reused for arable farming. It is planned that around 80,000 tonnes of manure (mainly poultry manure) will be processed in the plant each year. This is a standard fermentation process in which no residual water is produced. In principle, there are no residual products when fertiliser that cannot be used elsewhere is converted into biomethane. While no additional carbon dioxide is produced, instead, highpurity CO₂ is recovered throughout the entire process. This valuable resource will subsequently be passed on to food processing companies.



Two energy projects at our Diepholz site

GePro Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG in Diepholz, in collaboration with its external partner company A&L Tierfrischmehl Produktions GmbH, has initiated further energy projects in 2023: On the one hand, the construction of a biomass power plant is planned, which is due to go into operation in 2025. The entire steam requirement and up to 70 percent of the PHW subsidiary's own electricity consumption will be produced with it, with the remaining electricity being obtained from the local energy supplier. The biomass power plant will run exclusively on renewable raw materials, specifically on A1 and A2 category wood. The electricity produced is considered CO₂e neutral according to the EU directive. As a result, the previous pulverised lignite-fired power plant will be decommissioned.

On the second project GePro Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG is working in several stages with A&L Tierfrischmehl Produktions GmbH in the town of Diepholz and with other cooperation partners on the development of a district heating network, from which all the parties involved will profit sustainably. Via a new pipeline to be laid, the company will transfer the waste heat generated during production via a control centre with additional heat pumps to the town of Diepholz and other facilities, such as swimming pools, schools, the town hall, the hospital, etc. and in return, will receive cooled water. A synergy that makes a significant contribution to strengthening regional energy systems and sustainable cycles.

Generating their own heat and power

In April 2023, the fourth combined heat and power (CHP) plant of our Group went into operation at the Königs Wusterhausen site. In our production plants, we have a very high demand for heat and electricity throughout the year. We regard CHP units as a suitable method of generating energy. Specifically, in Königs Wusterhausen, natural gas is converted into power and heat using a gas motor. The heat generated in this way is used for internal heat consumption needs. A CHP unit therefore has a positive effect on energy efficiency. The Märkische Geflügelhof-Spezialitäten GmbH saves around 37,000 kilograms of CO₂e every year.



CHP unit covers a total area of 30 m².



The heart of the plant is an 8 cylinder gas motor with a generator.

“We think of ourselves as nutrition optimisers”

In the vertical integration of our PHW Group MEGA Tierernährung GmbH & Co. KG holds an essential place in the Group's core poultry business. Since 1972, the subsidiary has been producing high quality poultry feed, which is supplied to our approximately 1,000 independent contract farmers. Ralf Kenkel, Managing Director and Dr Anna Fangmann, Sustainable Management Procurement, agree: the global procurement of responsibly sourced animal poultry feed remains the lynchpin for a nutritionally optimised poultry diet.

What does that mean in concrete terms?

Ralf Kenkel: The sustainable sourcing of, for example soya meal in poultry feed, has been a high priority for us for many years. It is part of our sustainability strategy and is subject to a process of continuous improvement. The course for responsible global raw material sourcing was set procurement back in 2015. We were awarded the world's first certification for sustainable poultry feed as part of the GMP+ Feed Responsibility Assurance. With regard to deforestation-free supply chains, the PHW Group has had voluntary guidelines since the Q2/2022 that guarantee that our poultry feed mix comprises deforestation-free raw materials, with particular regard to soya and palm oil in poultry feed for German poultry.

Dr Anna Fangmann: As an industry solution, the requirements of the QS Soya Plus standard applies to the sourcing of sustainably certified soya products free from conversion and deforestation. We have actively cooperated on developing this standard, which ensures and guarantees that the soya is deforestation-free, regardless of the country of origin and/or cultivation region - which brings us back to the issue of responsible global sourcing of raw materials.



Why is global sourcing crucial for raw material procurement?

Ralf Kenkel: Not all the raw materials for our poultry feed can be supplied here, for one, because of the quantity required, but also in terms of quality from Germany and the rest of Europe. Important for global procurement is the responsible sourcing of raw materials and not disregarding favourable locations. Essential for the selection from all globally available raw materials are the respective local production conditions on site and the excellence of the locations. In addition to the implementation of internal and external audits, dialogue and discussions on site with the producers are very important to us. We are directly involved in the origins of our raw materials - and not just since yesterday.



Our strategy for responsible raw material sourcing is based on four pillars: screening, standards, alternatives and dialogue.

Ralf Kenkel: The new EU legislation on deforestation-free products (EUDR), scheduled to come into force at the end of 2024 will provide the legal basis for deforestation-free supply chains.

Key word protein supply: how important is soya currently in MEGA's animal nutrition?

Dr Anna Fangmann: Soya meal is a very valuable material for our poultry feed and the major supplier of protein for our poultry. Soya is suitable due to its amino acid structure (especially lysine and methionine), and is best suited for livestock, as it is highly digestible. The more digestible the food is, the more nutrients can be absorbed by the animal. Needs-led feeding with regard to proteins means that less undigested protein (e.g. nitrogen) is excreted by the animal. A win-win situation, so to speak for the animal and the environment.

Ralf Kenkel: Of course, we continue to use soya meal as an animal poultry feed component, but we are trialing alternative protein sources, such as PAPs or other legumes, for example, peas. We think of ourselves as nutrition optimisers.

What exactly do you mean by that?

Dr Anna Fangmann: In addition to the optimum availability of nutrients, different poultry may need poultry feed of slightly different composition, depending on age and here we mean different phases of feeding. For instance, younger birds need a higher protein content than older ones.

Ralf Kenkel,
MD of MEGA Tierernährung
GmbH & Co. KG

Dr Anna Fangmann,
Sustainable Management Procurement
at MEGA Tierernährung GmbH & Co. KG

Poultry feed lab

The lab is a purely feedstuff laboratory. This is where the basic data for formulation design is determined and quality and contamination control are also carried out here. We analyse around 12,000 finished product samples and 10,000 raw material samples per year. Modern analysis methods such as near-infrared technology (NIR) help us to do this. We have also developed our own calibrations for this purpose, which enable us to analyse our raw materials and finished goods, not only significantly faster, but also far more precisely, tailored to our conditions. If we were to break it down to individual parameters, the number of analyses carried out would be in excess of 50,000 per year.

Consequently, we not only produce feed, but we produce optimised feed according to the needs of the animals.

How do you ensure the quality of the raw materials?

Ralf Kenkel: With the monitoring systems we have implemented. When loading soya meal in Brazil, for example, the quality of the raw material is checked directly in the country of origin. When raw materials are delivered to plants, a further raw material inspection takes place. The specialised technical department and the associated poultry feed lab check every raw material delivery and continuously optimise the recipes with regard to the quality and availability of the individual raw materials. Only adequate nutrition can protect the environment, produce healthy animals and in this way ensure the welfare of the animals. After all, we ultimately are producing animal poultry feed from food.

As a poultry feed producer, to what extent do you see the advantage of vertical integration?

Ralf Kenkel: The fact that we are vertically integrated in our core business of poultry, means that the effects can be made directly measurable. In our case this means if the poultry feed is optimised in terms of nutrients, I can see the effect on the animal directly

and in this way, I can positively influence animal welfare. A further advantage is that our structure enables us to obtain feedback. Optimising poultry feed composition means that we can instantly reduce the amount of N and P in the excretions of the animals.

Technical Science department

The Technical Science department consists of the Science/Optimisation section and the associated poultry feed laboratory. The main focus is on the design of feed formulations and their ongoing optimisation. For this purpose, the recipes are adapted monthly to the changing nutrient concentrations in the raw materials available. This ensures that the animal poultry feed produced in the factories meets the consistently high level of quality required on an ongoing basis.

Insect protein as a feedstock component

The focus of our poultry feed is on the resource-conserving use of the available feed sources with a view to animal welfare and animal health. The identification and testing of alternative raw feed materials is a key element of our sustainability strategy. We are part of a consortium of players from the Dutch poultry industry operating in a public-private partnership with the University of Wageningen, researching the use of insects as a source of protein in poultry feed. This research project is currently primarily investigating the technical feasibility of the use of insect protein in poultry feed and includes examining its impact on animal welfare, animal health and sustainability parameters. Whether the inclusion of insect protein is feasible in practice depends primarily on three key factors: ensuring consistent product quality, sufficient availability and a viable purchase price. The research project is allocated to the period from 1 January 2022 to 1 July 2024.

“From the perspective of sustainability, the major consideration is that our digital resource management contributes to reducing CO₂ emissions to achieve our sustainability targets”

Digital resource management plays an essential role, as it makes a significant contribution to our holistic climate strategy. Iman Salehi, software developer and head of the project in the IT

department at the Rechterfeld site, has already successfully implemented modern web-based software in three PHW production plants. This enables CO₂e emissions not only to be reduced, but also to be avoided.

Iman Salehi,
Software developer





Mr. Salehi, why did PHW Group decide in favour of digital resource management?

Iman Salehi: Since 2019, we have had our Group-wide digital resource management system. It is a modern web-based software platform that enables the evaluation and analysis of resource consumption in real time. This is bundled for all locations where the platform has already been established. Our digital resource management has a modular structure and can be perfectly adapted to our complex plant and corporate structure.

How many plants are already using the software?

Iman Salehi: We started with the Oldenburg Geflügelspezialitäten in Lohne, followed by Donautal Geflügelspezialitäten in Bogen and then most recently we took over digital resource management at Märkische Geflügelhof-Spezialitäten in Königs Wusterhausen. As the target enshrined in our Sustainability Charter, the plan is to install digital resource management at our Geestland Putenspezialitäten site in Wildeshausen by the end of 2023. Other PHW sites will follow on. Expansion to the European locations outside Germany is also being considered.

How exactly does digital resource management work at the individual locations?

Iman Salehi: At the three locations, we have implemented over 1,200 real and virtual meters in the various production areas, which record and analyse water, waste water, electricity, gas and heat. We have the latest consumption data every five minutes. On this basis, the plants can check and evaluate their resource consumption for themselves and at what times and this enables them to look for optimisation potential. In addition, the plants set themselves targets for individual areas. The data recorded can be compared to show quickly and easily if the targets have been achieved.

What is the greatest challenge for implementation?

Iman Salehi: At each location, there are a large number of meters in different buildings and areas.

Our first challenge was to identify all the relevant meters that measure consumption in each area of the company. For this, we had to develop a multi-layered concept in order to integrate our group structure with its different companies, processes and cost centres into the system and to include resource consumption in this structure. On the one hand, a physical view was required showing the resource consumption per machine, room, level and component. On the other hand, a corporate view was required, to reveal the resource consumption by business area, division, processing stage and down to cost centre level. Another important aspect of the implementation of our resource management system was to ensure that our plants were so well set up technically as to ensure a robust and failsafe data transfer from the various sources at all times. This required the use of digital measuring devices, sensors, monitoring systems and complex communication protocols. We had plants with old measuring devices and different measuring methods, which our system could not read directly. It was therefore necessary to modernise the old measuring devices and upgrade the measurement methods.

And what are the advantages for the PHW Group by switching to digital resource management?

Iman Salehi: From the perspective of sustainability, the major consideration is that our digital resource management contributes to reducing CO₂ emissions to achieve our sustainability targets. Digital resource management enables us evaluate and analyse the resource consumption of each of our plants. Thanks to comparing the different areas under observation, we are able to recognise weaknesses and we can also, for example, compare different technical solutions from individual manufacturers with regard to the consumption of operating resources. By monitoring and analysing energy consumption, we can better identify inefficient processes and monitor the success of improvement measures in order to reduce energy consumption in the longer term. This ultimately also leads to cost savings, because effective resource management can reduce energy costs and consequently, reduce operating costs.



Dutch subsidiary passes sustainability audit

In 2022, PHW subsidiary Esbro, headquartered in Wehl, near Arnhem in the Netherlands, successfully passed the ZNU Standard “driving sustainable change” of the Centre for Sustainable Corporate Management (ZNU) at the University of Witten-Herdecke. One topic is innovative environmental technologies. Here, the slaughtering and butchering plant scored highly with the Aeco-Fat installation, where animal fats are separated from the waste from the processing area and the oil obtained from this is fed to a burner. So far, Esbro is the first company in Europe to save gas in this way. The plant will be further developed by 2025, so that the heat recovered can be used for its own heating system. In this way, a circular economy which recycles by-products from the slaughter process can contribute to achieving the plant's sustainability targets.



The Aeco-Fat plant at Esbro, which generates valuable resources through fat recovery, has been in operation since 2019.

“It is important for us to resolve any conflicting targets holistically in terms of sustainability and always act and make decisions in the spirit of the circular economy”

We are always looking for new solutions to maximise the recyclability of the materials in use, taking into account the conservation of resources and the actual recycling infrastructures and any new technological developments that may be available. This means that increased recyclability also goes in tandem with higher material usage. “This always requires assessment from the ecological and economic aspects. It is important for us to resolve any conflicting targets holistically in terms of sustainability and always act and make decisions in the spirit of the circular economy,” says Doris Wesjohann, the PHW Executive Board member responsible for packaging.

We operate in a dynamic field of constant advances in what is technologically available in terms of sustainable packaging materials on offer, what is feasible in terms of the political framework conditions, including the prevailing recycling infrastructure and what requirements our customers are demanding from our products. The most important aspect is the 100 percent food safety of all PHW products – and this must be a given at all times.

“Over the past few years, we have fine-tuned our packaging several times and have already successfully implemented many new packaging solutions. Thanks to these optimisations, we believe we are already well positioned in many individual areas and this means that major improvements will become more difficult in future. We are fully utilising our potential. True to our company motto ‘We must never stop improving’, we will continue to test new packaging in our production facilities and have it evaluated for us,” Doris Wesjohann adds.

Doris Wesjohann,
PHW Executive Board

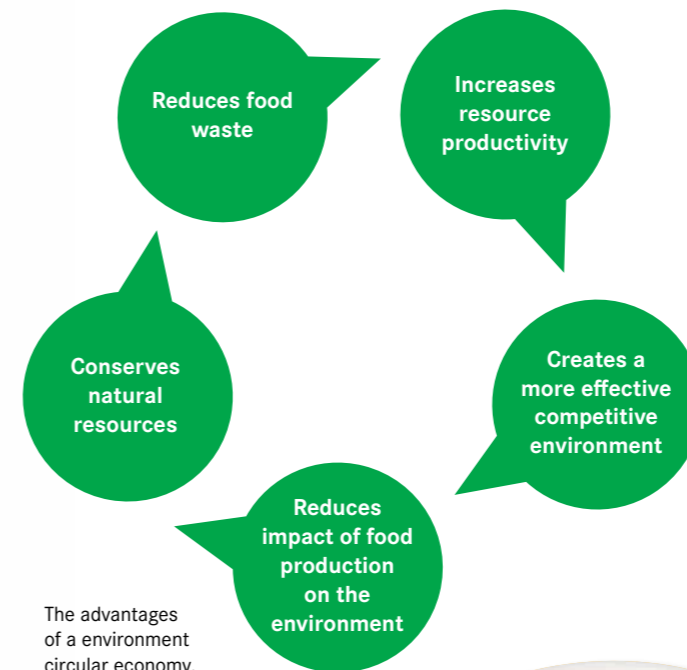


“ At the end of a holistic value creation chain, we begin a completely new value creation process ”



Bernd große Holthaus,
MD, GePro Geflügel-Protein
Vertriebsgesellschaft mbH & Co. KG

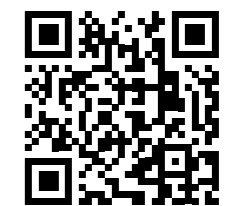
For years, we have endeavoured to develop our own PHW infrastructure in such a way that we can always operate a circular economy. The entire group structure builds on each other so that synergetic effects are created. In our core business area of poultry under the WIESENHOF brand, we have managed to successfully establish vertical integration. "Everything from a single source" - is our credo. In addition to our own parent stock flocks, we have our own hatcheries and work with our partner independent contract farmers. MEGA Tierernährung GmbH & Co. KG and external certified feed mills produce the poultry feed we need. We produce high-quality chicken, turkey and duck specialities as well as sausage and convenience products in our own abattoirs and processing plants.



Highly digestible poultry meal is used as raw material for pet food, aquaculture and pig feed.



Since its foundation in 1965, the GePro Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG has been part of the PHW Group and is today a specialist and innovation driver in the development, production and distribution of particularly high-quality gel proteins and fats for the pet food industry and aquafeed sector. The company is also active in the biofuels industry. Around 90 HGVs collect poultry slaughter by-products from Germany, the Netherlands and Poland several times a day. This includes our own and external poultry by-products from chickens, turkeys, ducks and laying hens as well as eggs from hatcheries. At the headquarters in Diepholz in Lower Saxony, the majority of the extensive portfolio is produced, packaged and despatched from facilities covering an area of around 50,000 m². In 2018, a plant in Bogen was commissioned. The special feature of this production facility is that it is integrated in the PHW subsidiary Donautal Geflügelspezialitäten. The fresh raw material can therefore be processed directly. This is unique in the industry. The Donau Pro Nature® range of animalwelfare products for the pet foods industry is also produced here.



More visible animal welfare in practice



Frank von der Brüggen, MD, PetCom Tierernährung GmbH & Co. KG.

PetCom Tierernährung GmbH & Co. KG has been a scheme participant in the QS process chain for pet food and is therefore playing a pioneering role in this segment. "We are proud to be the first certified company to successfully meet the QS requirements for pet food. We have thus laid the foundation for all our products to bear the ITW seal in the long term," explains Frank von der Brüggen, Managing Director of PetCom Tierernährung GmbH & Co. KG. "It was important for us to support the PHW Group's endeavours to act in holistic cycles and to also integrate products, which are produced from the by-products of poultry slaughter, into the cycle. In addition, we are also once again giving a clear indication that the PHW Group is continuously expanding animal welfare along its entire vertical integration Group structure," adds Paul-Heinz Wesjohann, founder of the PHW Group and member of the QS and ITW expert committees. So often, these by-products drop out of view, although their guaranteed quality is just as important, particularly if the issue is one of funding more animal welfare. With the new ITW pet food programme, we can finally provide evidence of this work. This is a major step towards more visible animal welfare in practice. Products will be available for sale to retailers under the "NutriQM" brand from October 2023 and also on request under the private labels of

participating retailers. Another milestone was reached in September 2023, when GePro Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG also passed the QS audit in the pet food process chain and is consequently a scheme participant. This makes the PHW Subsidiary the first company in Germany in the pet food category authorised to supply certified ITW raw materials.



Although product manufacture ends with the finished product, our production cycle doesn't. In the interests of sustainability, we process every single animal completely. In concrete terms, this means that slaughter by-products, i.e. the components of the poultry that are not suitable or authorised for food production, are also processed further. These include, for example, poultry offal, blood, feathers and bones. These by-products from slaughter are collected daily from the abattoirs and processed by our PHW subsidiary, Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG. The only waste products generated in the production

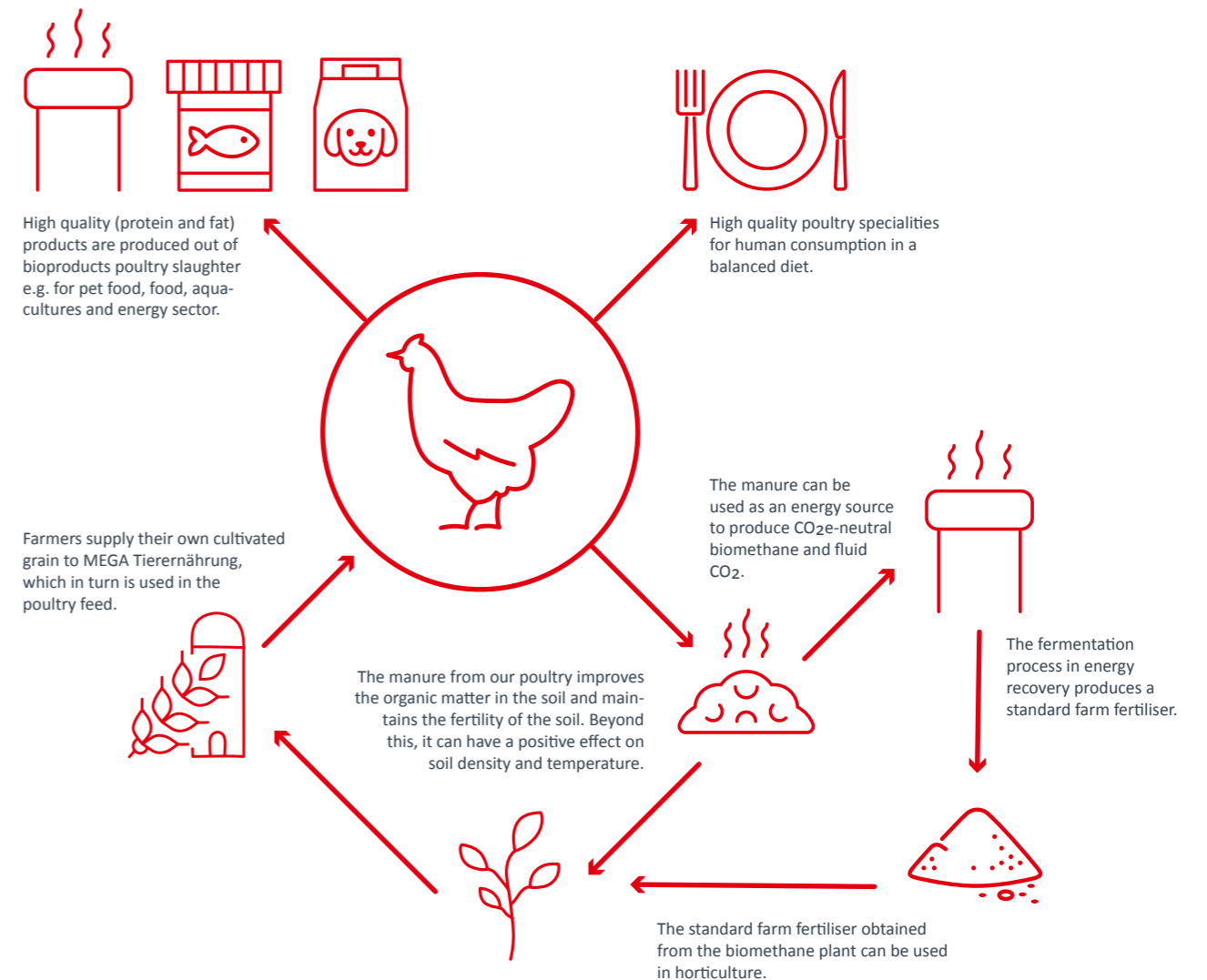
process are water and organic sewage sludge, although the latter, in turn, is used in biogas plants to generate energy. The high-quality protein products and fats are used for further processing in the pet food industry and to generate energy. "At the end of a holistic value chain, we begin a completely new process. Our products generate sustainable added value. We not only secure resources, but also conserve them throughout the entire production and logistics process," explains Bernd große Holthaus, Managing Director of GePro Geflügel-Protein Vertriebsgesellschaft mbH & Co. KG.

In addition to slaughter by-products, the PHW subsidiary also utilises eggs from the hatcheries to produce high-quality egg powder, which in turn is also used in animal feed. Our other subsidiary, PetCom Tierernährung uses the newly generated products among other ingredients for the production of dry pet food for the home market.

To summarise, we take pride in saying that we have succeeded in finding ways and implementing appropriate measures to process the whole animal – irrespective of

whether this is chicken, turkey or duck – leaving no unused surplus remaining. At this point, the cycle closed. In order to close the cycle in food production too, our PHW subsidiary Allfein Feinkost GmbH & Co. has advanced the topic of avoiding raw material surpluses to the top of the agenda. Specifically, it is important to resell, for instance, items such as unused marinades, texturates and breadcrumbs. However, the major challenge here is that customer-specific recipes are often proprietary and cannot be passed on to third parties. Here, Allfein Feinkost is looking for practicable solutions.

Operating in holistic cycles



*“Working for PHW means
you’re part of the family”*

We are a third generation family business. We employ around 10,500 staff across Europe at the various companies along our value chains in the poultry and alternative protein sources industries. Our Group includes more

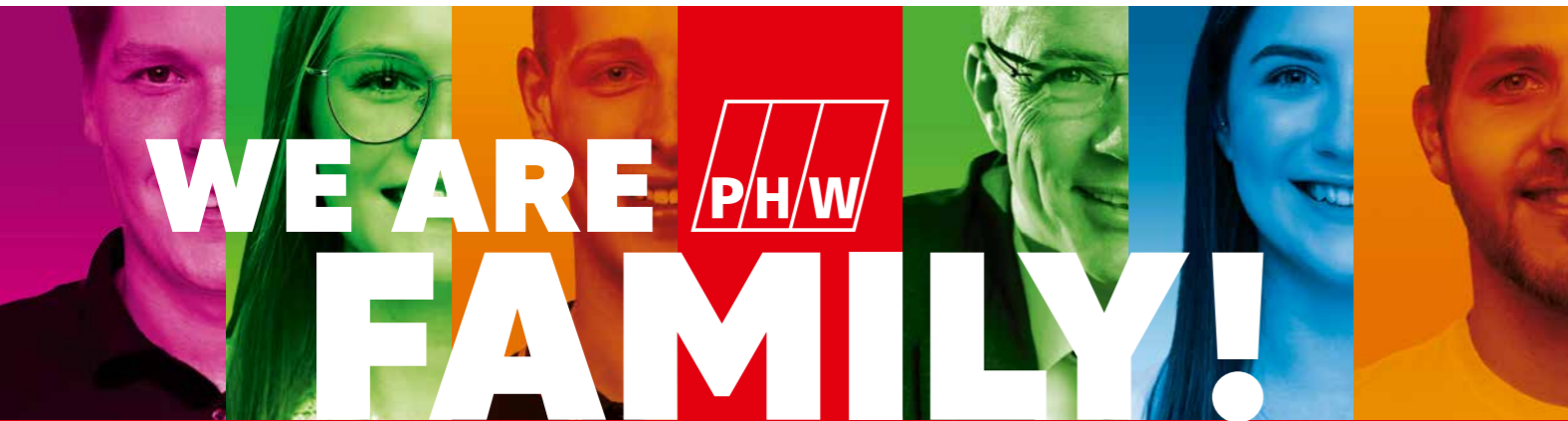
than 45 subsidiaries. There is one special feature which characterises us in particular: our diversity – which unites us in our corporate goal of producing high quality and safe food for all sections of the population.



Paul-Heinz and
Peter Wesjohann



**Social
responsibility**



A family business. More than 45 subsidiaries. More than 20 different apprenticeship opportunities.

Over the past 90 years, we have grown steadily. From a small farm with a hatchery, we have become an integral part of the German agricultural and food industry. We have achieved this above all through the invaluable dedication of our employees, which they bring to the business day after day. Not only has the number of employees steadily increased, but the Group's direction has also evolved over time.

“Working for PHW means you're part of a family,” says Peter Wesjohann, Chairman of the Executive Board. “We offer a wide range of professions – and all of them with future prospects. As with our independent contract farmers, we naturally also strive for our own employees to stay with the company in the longer term.” In order to emphasise how valuable each individual employee is to us, in 2022, we launched the employer “We are PHW-Family” branding campaign, in which we use actual members of staff. This slogan underlines unequivocally how much importance we attach to familiar interaction with one another. Respect, fairness, reliability, consideration, team spirit and down-to-earth attitudes are values that are firmly anchored in the company. With our subsidiaries, too, it is important to us that every employee is nurtured and shown the prospects for development and this includes opportunities for further training.

The different structural and regional situations of our subsidiaries mean that each location offers its employees individual benefits. These include, for

example, occupational health management (BGM), fruit baskets, additional dental insurance, health days with health insurance companies, vaccination programmes ('flu and Covid-19 until 2022), financial



In 2023, 52 employees gave blood as a result of the blood donor campaign at Rechterfeld, of which 14 were first time donors.

subsidies for the use of regional offers such as swimming pools, fitness at the workplace (“active lunch break”), e-bike leasing, subsidies for workplace glasses, cooperations with local sports centres, blood donation campaigns, company runs (e.g. B2Run), workshops and lectures on the subject of healthy eating and coaching programmes for managers that focus on employee health.



In 2023, 25 employees participated in 2023 B2Run fun run in Bremen's wohinvest Weser stadium.

Our group of companies employs a large number of foreign staff, especially in production work at our production sites. In order to integrate them into our Group as well as possible, we adhere strictly to the following sustainability target: we actively promote the integration of our foreign staff by offering various programmes as required. These include, for example, language courses or extended support for family members. Important information is always translated into other languages at our production sites. One aspect is particularly important to us: occupational safety. We do everything we can to ensure that every workplace is safe and that our employees are qualified to carry out the work assigned to them. The health of our employees is also very important to us, which is why more and more of our facilities are establishing occupational health management teams. We consider our production facilities are well positioned with regard to health. Consequently, we had set ourselves the sustainability target for 2023 that the health rate at our German production sites should be at least around 93 percent. We have achieved this: the health rate is over 95 percent.

Thinking out of the box

Keeping our finger on the pulse and not dozing off – that's just one of the reasons why we work with start-ups. In addition to promoting our own employees, we have also been investing for many years in young talent outside our group of companies. Here, we focus on our industry: the food and agricultural sector. Since 2018 we have been a corporate partner of StartLife. Co-founded with the University of Wageningen the company that acts as a kind of incubator. In cooperation with industry partners and investors, this incubator hothouses start-ups in the AgTech and FoodTech sector, creating a platform enabling easy networking between companies. As a corporate partner, we are part of this network, participating in the start-up Dealflow. That means we know which new startups are included in the StartLife programme, what solutions they offer and where we can provide support with our expertise or even give us the impetus to steer our developments in other directions. Our main interest, however, lies in using start-ups to find solutions and concepts that we can use within the PHW Group. In addition, also in 2018, together with 27 other well-known companies, we founded Seedhouse Beteiligungs GmbH, with the aim of growing the start-up landscape in the North Western region. However, Seedhouse not only provides funding, but also acts as a business angel with a broad network of representatives from commerce, industry and politics, which is a unique in Germany's accelerator landscape.

Summer holiday programme for children of staff

In July 2023, a summer holiday event was held for the first time for the children of employees of Allfein Feinkost GmbH & Co. KG and Oldenburger Geflügelspezialitäten GmbH & Co. KG at the Lohne site. A total of twelve girls and boys aged between eight and twelve took part. The campaign ran from 17th to 21st July 2023 and was divided into two daily sessions. In the morning, the children were in the workshop in Diepholz looking at questions such as “What is physics?”, “How does a lamp light up?” and “How is a robot programmed?”. The children were also able to demonstrate their manual skills in many technical handicraft projects. In the afternoons, a different excursion was on the agenda each day. Excursions included a visit to a fire station, to farms and to the defensive citadel in Lower Saxony's town of Vechta.

Getting children interested in technical professions in a playful way was the main motivation behind all this, which was organised by Manuel Kissner, Head of Training at Allfein Feinkost GmbH & Co. KG, who explained: “In times of a shortage of skilled labour, it is essential to show children just how exciting technology can be and, for example, what modern agriculture looks like. Our campaign supports and complements the school syllabus. Of course with this, we are also taking a first step towards career guidance and recruiting young talent. The reactions were great. The children were very enthusiastic and participated enthusiastically. The mix of learning and fun was very well received and so we will be offering a summer holiday programme for the children of employees' children again next year.” Allfein Feinkost GmbH & Co. KG and the Oldenburger Geflügelspezialitäten GmbH & Co. KG in Lohne are also supporting the technical workshop in Diepholz, whose work is funded exclusively by donations.



Happy children: the summer holiday programme was really well received by youngsters. Initiator Manuel Kissner aims to launch another holiday programme for kids in 2024.

Future prospects for next generation staff

The PHW Group provides training in many professions and areas: from A for Animal husbandry, to C for Commerce, F for Foreign trade, L for Logistics and Laboratory – the areas of activity at all our locations are diverse. In our group we offer over 20 professional apprenticeships and at least three dual study programmes at our German locations. As at 1 September 2023, we had around 150 trainees across the Group. Finding young talent has been a major challenge for many years. For this reason and in order to draw attention to our Group and its job opportunities, we have launched the “Drive that big thing” campaign specifically for professional drivers and the “Mission Possible” campaign for the process technician training programme to put a target-group-specific spotlight on different professions. To raise awareness of our group, the job opportunities and to find new, motivated employees, we regularly take part in job fairs and information days. These include, for example, visits to schools and career guidance days. Promoting young talent is close to our hearts. We are therefore particularly proud that our three



In 2022, three articulated buses carried information on the “Drive that big thing” training campaign. The aim was to draw the attention of pupils from the district of Vechta and make them aware of the opportunities of training as a professional driver.

subsidiaries MEGA Tierernährung GmbH & Co. KG, MEGA Logistik & Service GmbH and, most recently in spring 2023 WIESENHOF International GmbH were awarded the “TOP Training” Seal of quality by the Oldenburg Chamber of Commerce (IHK) – this means that we ability target in this area. We not only invest in our next generation, but also in our specifically targeted training programmes, trainers, training officers and HR managers.

At the end of 2022, four of our employees had successfully obtained the IHK specialist in-house training diploma. In addition, our second trainer network meeting took place in June 2023 at Rechterfeld. Over 20 trainers and training officers took part in the workshops. The aim is to exchange experiences and discuss current developments in this area. The focus of this meeting was on raising awareness and dealing with Generation Z. Our programmes are not just about young people starting out on the career ladder, but also relate to employees with professional experience. The PHW Group takes a holistic approach to employee development. For example, we run a PHW Management Programme at Rechterfeld, which is aimed at employees who have already reached a certain level of qualification. Various seminars are offered here to prepare participants for future specialist and management positions. There is a similar management development programme at PHW subsidiary Oldenburger Geflügelspezialitäten in Lohne that is tailored to blue collar workers.



13 pupils from the neighbouring districts took part in “Girls' Day, Boys' Day” at our headquarters in Rechterfeld in 2023.

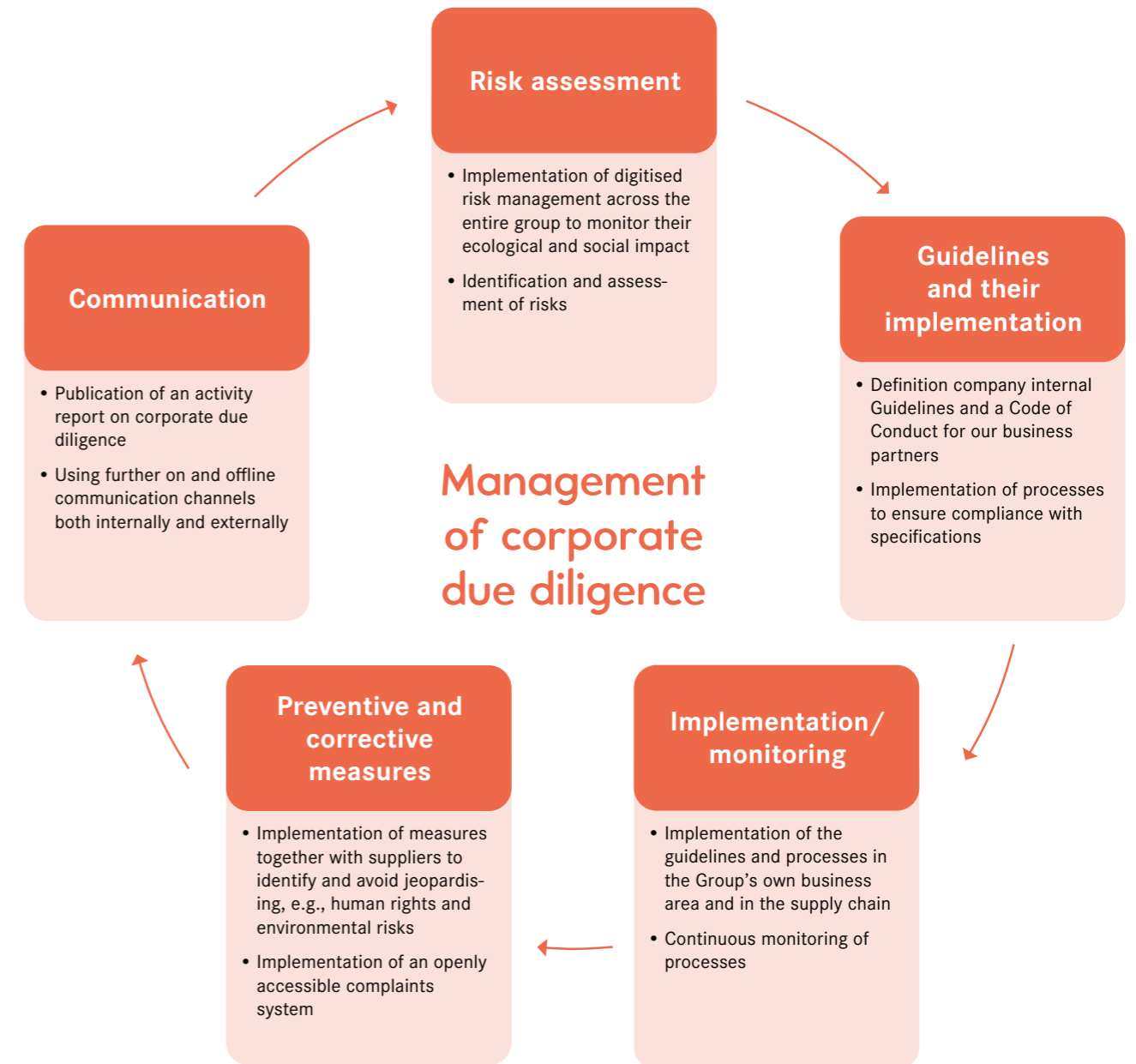


And in Lohne too, 15 children of staff also participated in the “Girls' Day, Boys' Day” Summer programme in 2023.

“Corporate due diligence is a matter of course for us: we address it with a number of measures and projects over and above the minimum of what is required”

In November 2022, we published our “Code of Ethics” and in April 2023 our “Code of Conduct” was updated. The Code of Ethics contains our five guiding principles: think ecologically and sustainably, act responsibly, communicate openly, ensure security and trust for customers and show appreciation and respect for employees. These are the guiding principles which connect us, are our benchmark and our strategic orientation. We introduced them back in 2000 with the implementation of our environmental policy. In recent years, these values have been

supplemented by statements on corporate policy and sustainability, most recently in 2011 on energy policy. Our Code of Conduct defines our expectations and principles towards our suppliers and business partners in connection with the production and delivery of goods and the provision of services to us. This version replaces the original “Code of Conduct – Social Standards for Business Partners”. With this new version, we have fulfilled a sustainability target. It means that we can document our sustainability activities digitally. In 2023, we installed leadity soft-



ware – and with this successfully fulfilled another target in the area of sustainability. “Corporate due diligence is a matter of course for us: we address it with a number of measures and projects over and above the minimum of what is required,” summarises Peter Wesjohann.

Sustainability in the supply chain is also important for many of our customers. For example, our PHW subsidiary Nutrilo GmbH has been fulfilling the SEDEX (Supplier Ethical Data Exchange) criteria since 2012.

As of December 2023, Nutrilo GmbH switched from a two-pillar to a four-pillar model. This extends the scope of the SMETA audit with regard to the implementation of sustainability endeavours to the two areas of the environment and business ethics. Moreover, we are required by German law and in future also by the European law to implement measures that ensure due diligence within the company. This concerns, for example, the Supply Chain Due Diligence Act. We meet these requirements with our management of corporate due diligence.

“Instead of national solutions, we advocate standardised EU-wide”

Dr Thomas Janning,
Head of Staff Unit Policy
and Associations



As a family business we are aware of our social responsibility for our 10,500 employees. In tandem with this, we see ourselves as a food producer tasked with a duty of producing high-quality animal and plant protein products for all sectors of society. We always adhere to this sustainability target at all times. In order to realise it, we are contingent on factors including political developments and legal framework conditions in Germany and Europe. Since mid-2022, Dr Thomas Janning has headed the Policy and Associations unit of the PHW Group. He says that reliable future prospects: “demand a pan-European legal framework with harmonised regulations for the agricultural and food industries in conjunction with the strengthening of responsible entrepreneurship.”

Dr Janning, why and with what intentions is the PHW Group participating in the political dialogue?

Dr Thomas Janning: Our self-image has always been characterised by the responsibility to actively participate in political dialogue for the purposes of helping to shape policy, whether at federal or European level. This willingness to help shape policy applies to the established sector of poultry production as well as for the still developing business area of alternative native protein sources. On the one hand, we are politically active through various associations and on the other, with the in-depth expertise of our colleagues, our Group is a sought-after dialogue partner in politics and administration. As the PHW Group, we are very aware that we are representing the industry in the political dialogue and that we bear a high level of responsibility towards society in Germany and Europe. This may be our role as an employer as well as our contribution to food security. An essential feature of our motivation as the PHW Group in our political work is the objectification of the political debate in contrast to the sometimes ideology-driven understanding of politics.

What can the PHW Group contribute to objectification?

Dr Thomas Janning: As a result of our many years of practical experience, we can impart specialised knowledge in a targeted manner, explain complex issues and thanks to our vertical integration, we can give politicians visiting the company a deeper insight into production. We work closely with scientific institutions, support research and ultimately also make the findings available to politicians. There are currently numerous topics on the political agenda that we do not believe are suitable for the constructive development of the agricultural and food industries. The term agricultural and food transition describes the intensity of a very acute and fundamentally political debate. It is both a task and our responsibility that we, the PHW Group, contribute to the debate in the various channels and media. In my position, I am committed to represent PHW Group in the confidence of achieving good results in the political discourse with the participation of the business community. It is sad, when politics closes itself off to dialogue and has no real interest in resolving the issues, although the views and experiences of the industry are essential for political decisions to ensure a sustainable food industry in Germany and Europe.

What is it that you want from politics?

Dr Thomas Janning: Future viability needs planning and legal certainty. This economic requirement must not be equated with the desire for statutory regulations and quick political decisions. There must be no prohibitionist policies. We are calling for a qualified legal framework with room to manoeuvre for companies and marketbased development opportunities. We need a sensible and economically viable political and legal framework at EU level, with conditions that take into account, among other aspects, the major socio-political issues of sustainability and animal welfare that may well be challenging. What is needed in politics is a sense of proportion and a sound understanding of the issues, not political actionism, to give an efficient agricultural and food industry in Germany and the EU real prospects. Instead of national solutions, we advocate standardised EU-wide regulations. For example, an EU directive, rather than the upcoming chicken regulation, is absolutely the right way forward. Agricultural and food policy must always take into account that the supply of food is a highly complex task that can only be achieved through political action in co-operation with the industry.

And does that apply to all the business areas of the PHW Group?

Dr Thomas Janning: Definitely. We produce food for very different dietary patterns across broad sections of the population. This includes our wide range of poultry products, but also our extensive range of products based on plant-based protein sources. It is crucial that politics does not see itself ultimately driven by ideology, but consistently listens to consumers as well as maintaining an open and honest dialogue with trade and industry. And here it is essential to consider the truth of the matter that imported goods from third countries with lower requirements affect the markets in Germany and the EU. This means that higher standards for German and European production must be accompanied by reliable import regulations. A core element here is the need for long overdue comprehensive origin labelling, as well as an EU regulation on turkey farming to ensure uniform intra-Community animal welfare standards.

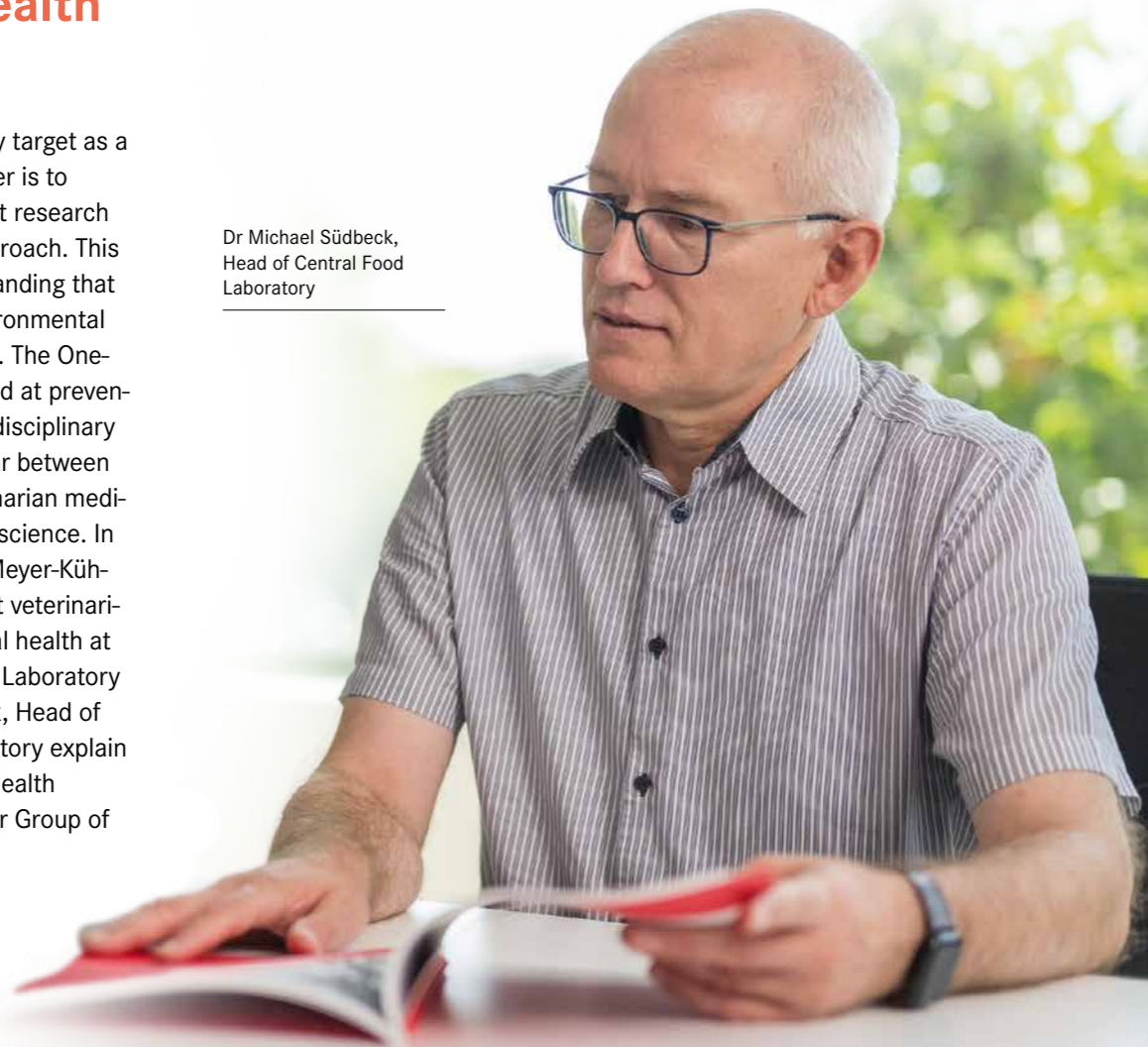
Dr Borris Meyer-Kühling,
Head and specialist veterinarian for
poultry and Animal Hygiene of the
Central Veterinary Laboratory



“Targeted measures of hygiene, disinfection and management and selected vaccination programmes extending from parent stock farm to hatchery and fattening shed consistently raise the number of flagship farms”

Our sustainability target as a practical partner is to actively support research into The One-Health approach. This is based on the understanding that human, animal and environmental health are closely linked. The One-Health approach is aimed at prevention and promotes interdisciplinary cooperation, in particular between human medicine, veterinarian medicine and environmental science. In an interview, Dr Borris Meyer-Kühling, Head and Specialist veterinarian for poultry and animal health at the Central Veterinarian Laboratory and Dr Michael Südbeck, Head of the Central Food Laboratory explain how we apply the One-Health approach throughout our Group of companies.

Dr Michael Südbeck,
Head of Central Food
Laboratory



Why is it important to talk about One Health and to take an interdisciplinary approach to the topic?

Dr Borris Meyer-Kühling: Interdisciplinary collaboration within a One-Health network ensures the targeted transfer of knowledge between those responsible for veterinary medicine, human medicine, agriculture and environmental management, so that at the same time, both systematic risk assessment and new approaches to solutions can be developed. The complexity of the above interrelationships and the need for cooperation becomes particularly clear in the context of, for instance, the coronavirus pandemic, controlling other zoonotic diseases and the problem of multi-resistant pathogens that should be dealt with jointly. These resistant pathogens are a global problem and are frequently directly linked to the use of antibiotics in certain industries, hospitals, health and care facilities, private households

and in animal husbandry, including aquaculture and pet keeping, so that they are simultaneously spread via wastewater, sewage treatment plants, agricultural applications and in other ways including by travel. In various countries around the world, the conditions and technical standards of the facilities indicated are sometimes strikingly diverse and are not always comparable in terms of hygiene. The focus is naturally on the responsible handling of these antimicrobial drugs, comprehensive monitoring, infection prevention and of course, the targeted control and suppression of resistant pathogens through innovative means and processes.

Dr Michael Südbeck: The One-Health initiative also means that findings are fully open to discussion, so that in addition to the elementary identification of resistance and species characteristics, in particular in the case of an outbreak of infectious disease,

where the incidence and genetic subtype of the pathogens are critical – for example, detection of the incidence of salmonella present in vegetables, fruit or meat would not be decisive where good kitchen hygiene is observed. Accordingly, it is noteworthy that changes in general hygiene strategies, for example during the pandemic, led or can lead to a reduction in case numbers – as is evident for Germany according to the Epidemiological Bulletin of the Robert Koch Institute which indicates that there was a dramatic fall in Campylobacter, salmonella and MRSA infections in the period from 2019 to 2022.

Dr Borris Meyer-Kühling: Against this backdrop it is also interesting that in 2021, 95 percent of the clinically relevant MRSA pathogens detected in hospitals were not of the CC398 animal husbandry type and are consequently purely human-associated. Discussions on ESBL-producing pathogens from animal husbandry in terms of their clinical significance in medical health centres does also allow relativisation, but this must not overlook the fundamental importance of minimising resistance, general zoonotic infection control and dealing with potential risks. However, it is also clear that hygiene is firmly interwoven with the One-Health approach.

What contributions do we in the PHW Group make to overcoming the challenges arising from this approach?

Dr Michael Südbeck: The PHW Group actively enjoys working with veterinary and agricultural science universities as well as with federal institutions in order to resolve major problems in a solution-orientated manner. With regard to One-Health, the following pioneering projects are particularly worth mentioning: RESET I and II, EsRAM, PAC-CAMPY and KontRed. The insights gained from these studies, but also extended internal research and routine diagnostic results, flow into the daily analysis. Our digital in-house data processing system enables an exchange of extensive analyses and ongoing feedback between the PHW Group's veterinary and food laboratories and other departments. Freedom from notifiable or controlled animal diseases or zoonotic pathogens is just as crucial as the absence of antibiotic residues in inhibitor tests and multi-resistance.

Dr Borris Meyer-Kühling: The idea is to define One-Health as a sustainable health concept, which is reflected in the Farm2Fork strategy of European Green Deal – a fair healthy and environmentally friendly food system.

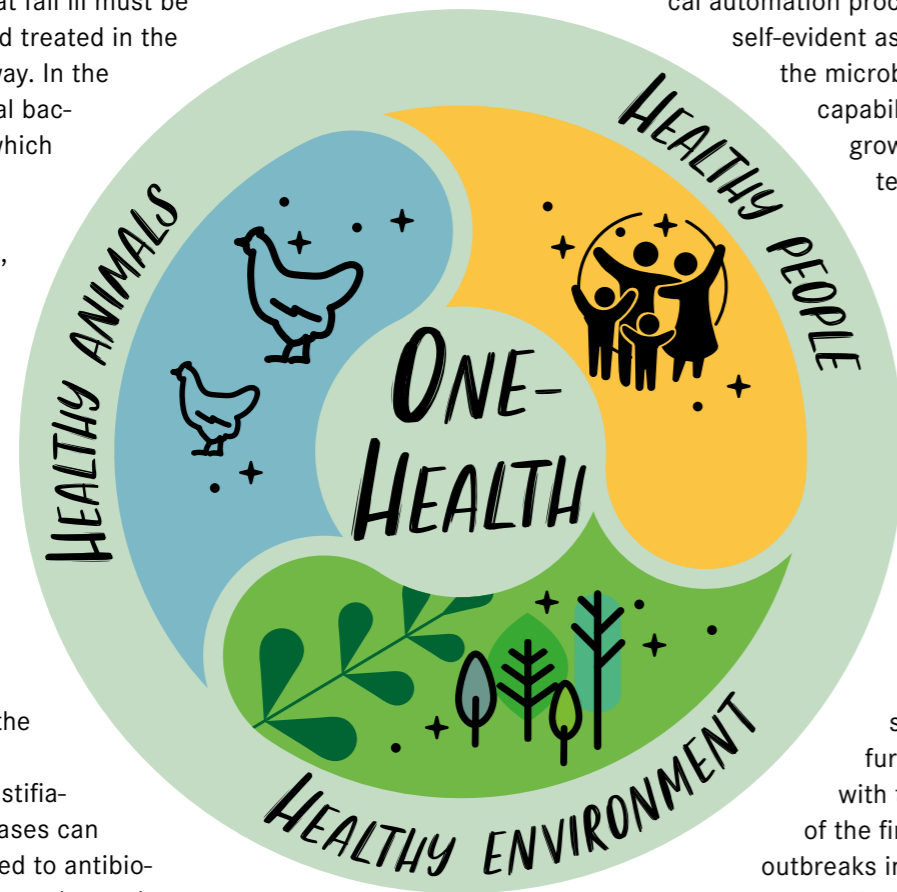


PHW is the leading industry partner in projects promoted by the BLE (Fed. Dept. Agriculture and Food)

- **RESET I and II-Resistance in humans and animals – joint research in Germany, focus on:** Dissemination of ESBL-/AmpC-forming enterobacteria along the entire broiler chain: Analysis of weak points and determination of intervention points
- **EsRAM:** Development of cross-stage reduction measures for antibiotic-resistant micro-organisms in broilers – synergistic prevention and intervention measures in the broiler chain.
- **PAC-CAMPY:** Prevention and Combating Campylobacter infections: A One-Health approach; the aim is a drastic reduction of Campylobacter in animals and poultry through the use of organic acids organic acids and phages
- **KontRed:** Implementation of technological Processes to reduce microbial Contaminants in the poultry and pig slaughtering process

One aspect that needs to be addressed is the use of antibiotics. A hot topic in society – from a veterinary perspective, how do you view developments in the poultry industry in the past 10 years?

Dr Borris Meyer-Kühling: First of all, interdisciplinary exchange means that both specialist human and veterinary points of view are equally categorised and understood. Individual animals, but also entire herds that fall ill must be investigated and treated in the best possible way. In the case of a critical bacterial disease which cannot be controlled by alternative methods, targeted antibiotic therapies may be used, but in every case only to the necessary extent. Here the procedure does not differ from human medicine. Of course, the choice of antibiotics in justifiable individual cases can also be restricted to antibiotic classes that are deemed particularly worthy of protection where the clinical situation and specific diagnosis renders this necessary. On the one hand, it is absolutely justified to discuss the use of antibiotics in a social context or from a critical perspective of human medicine, but on the other hand, veterinarians have an unequivocal duty to fulfil their mandate as veterinarians to prevent damage to animals caused by infectious diseases, both in the interests of animal welfare as well as for consumer protection, so that no farm should remain untreated. The freedom to use antibiotics or to essentially dispense with reserve antibiotics does not change as a result, and of course, the requirements of the Medicinal Products Act must be strictly



complied with, as is the duty to maintain optimised farm management including the best possible vaccination programmes and meeting the required animal welfare/hygiene standards. Looking back over the past ten years, the additional expenditure on equipment in accredited laboratory diagnostics in poultry medicine to improve animal health is generally worth mentioning. In addition to standardised sensitivity tests, the latest molecular, biological, serological automation processes are now as self-evident as sequencing and the microbiome. Diagnostic capabilities have also grown disproportionately in the context of farmers carrying out their own tests because of the increasing risk of fowl pest from wild birds. Technical analyses in these laboratories specialising in mass diagnostics reached a further high point with the beginning of the first SARS CoV 2 outbreaks in humans as an active and efficient contribution to combating this threatening One-Health issue on the part of veterinary medicine through proven PCR methods. Irrespective of this, modern digitisation of poultry sheds and of the entire PHW Group in association with central, integrative analysis enabled by means of in-house data collection, which has taken place over the past ten years deserve special mention and means that in addition to important results on animal health, microbiology and food safety, specific animal shed parameters such as weight, feed regime, medication requirements, losses and slaughter data can be correlated on a daily basis. Sustainable findings inform the decisions of the hatchery, fattening, parent stock/slaughter

animal/veterinary/food departments and animal nutrition departments in the same way as the management strategies. Herd health in particular can be continuously analysed and improved – an essential aspect of the One-Health idea and is also a decisive key to the reduction of antibiotic use over the past 10 years. Corresponding proof of success is shared with veterinary and agricultural science experts, partner farmers and state veterinarians. Of course, all other departments in the PHW Group are also crucial for sustainable success.

Our sustainability goal is to continuously restrict the use of antibiotics in poultry rearing to an absolutely necessary level in line with animal welfare and to combat multi-resistant, ubiquitous pathogens with targeted interventions. How can this goal be achieved?

Dr Borris Meyer-Kühling: Targeted interventions in poultry sheds require detailed veterinary diagnostics able to respond to the increasingly complex questions arising in farming and which take account of factors relating, in particular, to health, animal nutritional and immunological factors in measures aimed at infection prevention.

Dr Michael Südbeck: With regard to the responsible use of antibiotics, I should say that pursuant to the implementation of the 16th Amendment to the Medicinal Products Act, the German antibiotic resistance strategy (DART 2030) and respectively, the One-Health initiative will be strictly followed, not least to implement a benchmark that guarantees "learning from the best". The state pharmaceutical authorities are taking over here, partly overlapping with QS Qualität und Sicherheit GmbH, which became active two years earlier in the private sector. With regard to the responsible use of antibiotics, I should say that pursuant to the implementation of the 16th Amendment to the Medicinal Products Act, the German antibiotic resistance strategy (DART 2030) and respectively, the One-Health initiative will be strictly followed, not least to implement a benchmark that guarantees "learning from the best". The state pharmaceutical authorities are taking over here, partly overlapping with QS Qualität und Sicherheit GmbH, which became active two years earlier

in the private sector. Since 2014, governmental pharmaceutical surveillance has been monitoring antibiotic consumption data and recording the incidence of antibiotic treatment its annual statistics. Data on zoonotics/resistance data are similarly recorded by way of comparison. It should also be mentioned that the term antibiotic stewardship, i.e. the managed, responsible handling of reserve antibiotics, has already been in the WIESENHOF guidelines since the 90s.

Dr Borris Meyer-Kühling: The decisive factor is, of course, that the responsibility for the practical intervention against infectious diseases and against infectious diseases and against viral, bacterial and parasitic pathogens and therefore also the fight against multi-resistance lies with herd managers and veterinary medicine/agricultural science in their daily work. Targeted measures of hygiene, disinfection and management and selected vaccination programmes extending from parent stock farm to hatchery and fattening shed consistently raise the number of flagship farms.

Finally, it is worth mentioning a few special innovations, e.g. bacteria-killing phages, colonisation-blocking feed additives and microbiotic substances/nutritional supplements and microbiota stabilisers as well as what are known as Competitive Exclusion products, which can decisively reduce multi-resistance, as projects promoted by the Federal Ministry of Food and Agriculture (BMEL) have already shown in 2019. The realisation that that it is no longer just the individual pathogen or its resistance, but rather the overall microbiotic structure, i.e. all micro-organisms and viruses present at the same time that are the decisive factors impacting animal husbandry, but also humans and the environment, will undoubtedly be addressed again in future in specific national livestock programmes and BMEL programmes. Health organisations all over the world fear pandemics of multi-resistant germs. To summarise, zoonotic infections and multi-resistance can be countered by implementing practical, scientifically supported control programmes within the One-Health-Strategy, which goes beyond basic research and surveillance in its interdisciplinary approach.



Nutrition

“With our structure, we are best placed for the future and also to integrate primary production”

The year 2018 had a huge impact on shaping the development of our Group: the Alternative Protein Sources division became an autonomous business with its own Executive Board position, under the leadership of Marcus Keitzer. Since then, the division – alongside our core poultry business and the health division – has become the third pillar in the PHW Group. With this move, we are not only responding to consumer demands, but also evidencing our conviction that a healthy, balanced diet includes both animal and plant-based proteins.

However, the first steps in the plant proteins segment were already taken before 2018, so that we can now look back on a decade of history. With the introduction of the first meat substitute products in 2015, we reached our first milestone and we have been consistently expanding this area ever since.

Through the development of strategic partnerships and targeted investments in start-ups, especially at the outset, we have built up our expertise in

the relevant technologies and our understanding of the market and we have also consolidated and expanded our market position. We continue to regard our experience to-date as a building block for the strategic development of our overall portfolio and to complement our expert competencies in this dynamic environment.

In financial year 2021/2022, we achieved sales of around €23 million, which we can double in 2022/2023. By 2025/2026, we aim to achieve sales with alternative proteins to €65 million by 2025/26.



Since 2022, the PHW Group has had its own production site, for exclusively vegan (convenience) products in Laage near Rostock, where we successfully commissioned a second production line in May 2023. "This underlines our ambition to expand the business gradually and in a market-led manner," says Marcus Keitzer. As in our core poultry business area we are

pursuing a strategy based on integrated production sources. Consequently, we are focusing on an expansion of our competitive infrastructure across the value chain. In concrete terms, this means extending our successful vertical integration model from the poultry sector to the alternative protein sources business.



Dr Markus Veen, MD,
VTEC Ingredients GmbH

Marcus Keitzer,
PHW Executive
Board

An important milestone in this strategy was reached in summer 2023 with the establishment of VTEC Ingredients GmbH. Among other advantages, this enables us to systematically implement one of our sustainability targets: creating a strategic partner and research network with scientific institutions to evaluate and promote the nutritional mix of the future.



What role does VTEC Ingredients play in building vertical integration?

Marcus Keitzer: With regard to the establishment of the new PHW subsidiary, we asked ourselves two fundamental questions: how can we become even more competitive and how can we be more proactive earlier in the value chain, so that we are in a better position later, particularly with respect to the relevant parameters of flavour, appearance and price.

Dr Markus Veen: With VTEC Ingredients, the existing PHW infrastructure is systematically networked with upstream stages of the value chain. This enables us to focus on purchasing, biotechnological processing and the production of raw materials and auxiliary materials for the manufacture of plant-based sausages, meat and fish substitute products. VTEC Ingredients is closely linked to the Group's existing product development departments, so that the existing product range can be continuously improved and expanded with the addition of innovative products in the future. Our objective in this is to react even faster and respond to customer requirements and realise these even more quickly. We also envisage that synergy potential will be released for use in the production of upstream products.

What exactly does VTEC produce?

Dr Markus Veen: VTEC Ingredients is quite clearly a technology company. With our expertise, we make a targeted contribution to marketing good and cost-effective products. With meat substitute products, ingre-

In this interview, Marcus Keitzer and Dr Markus Veen, co-partner and managing director of VTEC Ingredients GmbH, explain how we can achieve backward integration in the alternative protein sources business and thereby realise our sustainability targets. For sure, we aim to develop this business to make it fit for the future and for consistent use of synergetic effects within the PHW Group.

dients play a more dominant role than with classic meat products. For animal products, meat is the main ingredient. In the case of plant-based products, on the other hand, it is proteins, which are processed using technologies and compositions to create a flavourful product. At our facility in Engelsberg, we use the Rovita production plant, which produces the products for us using classic wet and dry processing. Specifically, we produce mixtures that contain various ingredients, such as proteins and starches. The task of VTEC Ingredients is to develop and manufacture cost-effective products. Starting with primary production on the agricultural side through to processing in the plant. At the same time, we deal with new technologies, networking them for use within the Group. We act as a kind of interface between the initial processing of the raw materials and the development of the end products. We therefore see ourselves as problem solvers for the entire value chain.

Your sustainability goal is vertical integration. With VTEC Ingredients, you are now not only responsible for the supply and distribution of the end products, but also for for the first and second upstream stages of primary and secondary processing. The only thing missing is the primary production stage. Do you want to tackle this: how and when?

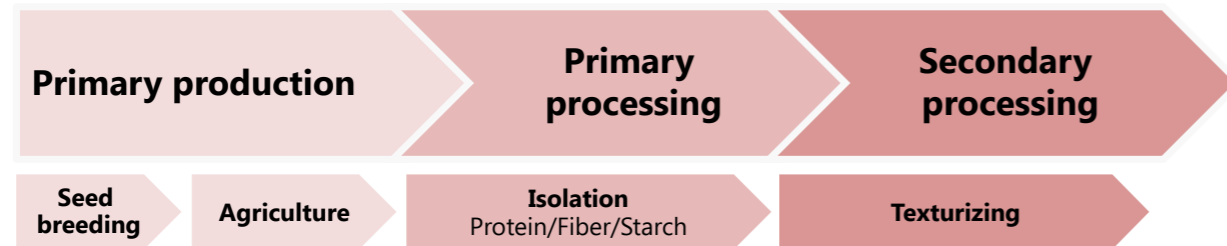
Marcus Keitzer: At the moment, our focus is certainly on optimising the newly created structure, particularly with a view to leveraging the synergy potential with VTEC Ingredients. With our structure, we are best placed for the future and also to integrate primary production. However, we still see a need to first establish and significantly increase the scalability of the segment within the German and European market. Until we achieve this, we will keep our eyes firmly on developments in the market and in technology, so that we will be able to launch initial potential pilot projects.

STRUCTURAL CONCEPT

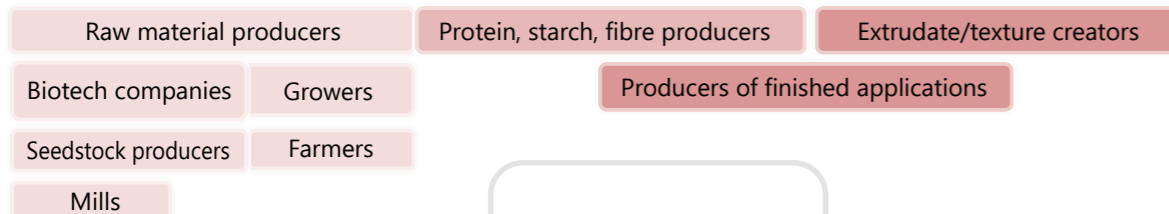
Starting with **primary production**, breeders, seed manufacturers, but also increasingly biotechnology companies are the first players responsible for production of the basic raw materials such as wheat, beans and peas that are relevant to us and who, with the functionalities and qualities they offer, have a significant influence on the subsequent process steps.

The processing of the basic raw materials into those that can be processed in the food industry is carried out in the **primary processing** and **secondary processing** stages. Depending on the desired end product, the players in these two stages produce raw materials such as flour, concentrate or protein isolate along with other components in a wide variety of textures.

While the individual players generally work independently of each other in traditional customer-supplier relationships, with the establishment of VTEC Ingredients, we, as **suppliers of the end products**, have taken the first step towards backward integration by connecting the raw materials segment directly with food production and the subsequent supply chain to the retail trade.



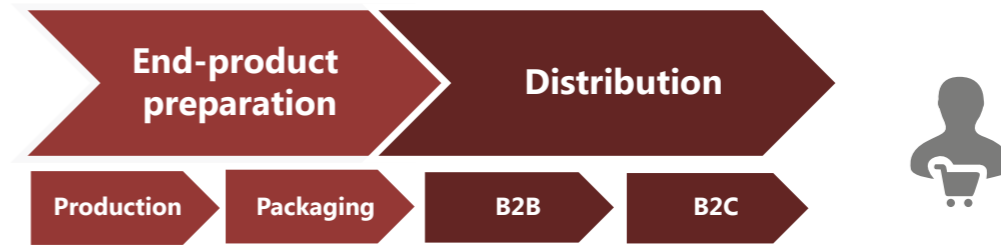
Players



N.B simplified diagram

Cultivated meat - a technology with potential

There are many approaches to reshaping the global food system. The production of cultivated meat is one of these approaches that aims to meet this challenge. Continuous research into innovative technologies in all our business areas and validated testing, also with a view to a sustainable nutritional mix of the future, are essential for us. Addressing questions such as: "what can cultivated meat achieve in the future?", "where are the technology's remaining obstacles and what timeframe is realistic?" or "how sustainable is the technology?" are therefore high on our agenda. We always obtain answers to our questions from our partners in the food tech sector, with whom we have enjoyed a close and trusting dialogue for years. Since 2018, one of these partners has been the Israeli start-up SuperMeat, which focuses on the cultivation of poultry meat and is already producing on a pilot scale. "With SuperMeat, we have developed comprehensive expertise in the technology, but also in its challenges and this means we can identify the right approaches for our Group, including in dialogue with our retail partners," explains Marcus Keitzer. "In addition, we are currently working flat out to establish a second partnership with one of the world's leading companies in this field, with the aim of significantly strengthening our presence once again - particularly in the EU. This will enable us to further expand our existing expertise. We also see it as a platform to contribute our expertise as one of Europe's leading meat processors. We believe this technology has the potential to make a contribution to the nutritional mix of the future, but we are also keeping an eye on the challenges that still exist," says Marcus Keitzer. An important prerequisite for this is approval for market entry in the European Union. At the same time, the competitive scaling of production needs work and we will also have to look into the price attractiveness of the products. Market entry in the USA will allow us to draw initial conclusions about consumer acceptance of such products.



“Flavour, appearance and texture must be in harmony”

25 years since Heide Eilers joined the PHW Group and ten years since she was appointed Project Manager Food. Her department is the link between product development, the butchery departments and sales, because the ingredients agenda is versatile and

the department is constantly dealing with new topics. In this interview, Heide Eilers explains the tension between the desire for a balanced diet, the current challenges additive management has to confront and she also sets clear sustainability targets for her area.

Heide Eilers,
Project Manager Food



Mrs Eilers, let's start with the good news. In the past months your ingredient management department has achieved a great deal in terms of reducing the palm oil content.

Heide Eilers: Yes, that's right, in 2023 around 98 percent of all marinades used in our butcheries were free from palm oil. By 2024, all the ingredients used will be palm oil free. From an environmental and sustainability perspective, this is definitely a great success. We aim to build on this with further projects in the field of nutritional physiology as well as setting our agenda for the short and the long term.

That sounds very promising. Can you elaborate?

Heide Eilers: From a nutritional-physiological perspective, as an animal product, poultry counts as part of a balanced diet. It has a low fat content but is comparatively rich in proteins - depending on the type of poultry, this is between 18 and 23 percent - which is important for building muscle, for example. However, this is only true of unprocessed, natural poultry. As soon as I eat a convenience product with a marinade or if it's breaded, the nutritional values change accordingly. This is the point at which we in additive management work together with product development. The current focal point is reducing salt content.

What salt content reduction targets are you aiming at in the short and long term?

Heide Eilers: First of all, we must not forget that salt is a flavour carrier. With all our branded poultry products from WIESENHOF and the Chicken Schmiede, we aim to gradually reduce the salt content to less than or equal to 1.3 g per 100 g of salt. By 2025, we plan to achieve this for around half of all fresh products and by the end of 2026, we want to have switched completely. However - and here comes the sticking point - without any significant loss of flavour. If the product no longer tastes good, people won't buy it.

As well as the salt content, the fat content is also an issue. What can you do about this?

Heide Eilers: When it comes to fat, it's similar to salt. Fat is also a flavour carrier, but it has other functions too. As already explained, poultry is rather low in fat per se, but the marinade or breading usually increases the calorific value of a product. However, fat-free breading tastes nowhere near as good as fatty breading. The development is simply not yet as advanced. And the fat in breading gives it a better mouth feel. There is also an optical point: water-based marinades do not give the poultry product an attractive lustre, whereas oil-based marinades do. And as we know, we eat first with our eyes. And this is really the point: flavour, appearance and texture must be in harmony for a product to be appealing. In the long term, we will also focus more on fat content and examine where we can save on fat and oil, but without any negative impact on flavour.

And what about plant-based products? Do ingredients play a different role than with animal products?

Heide Eilers: Definitely. This is down to the original raw material. In the case of animal products, for example, every type of meat has its own typical flavour, which we refine with spices. With the plant-based products, I don't have a single raw material, but rather a mix of different ingredients. Fat, for example, not only plays a role as a marinade or in breading, but also in the core product itself, i.e. the plant base, which already contains oil. This is important, as otherwise the individual extrudates would not hold together. Consequently, reducing the fat content has a sensory and a technological impact on the plant base, which is why it must be taken into account during product development.

Does that mean the fat content cannot be reduced?

Heide Eilers: No, of course not. But the current situation is that plant-based products may be higher in fat compared with our poultry products. An issue that we definitely have on our agenda. There is also the question of salt. We would like to reduce the salt content in this product category too. And here it is also essential to increase the protein content as well as the fibre content.

“Our communication concept puts the competitive advantage of local produce firmly in the spotlight”




Dr Ingo Stryck,
Head of Marketing

WIESENHOF stands for 100 percent poultry from Germany. For decades, we have been establishing complete vertical poultry integration and we have been actively featuring this core message in our communications. “Poultry from German farms” is a clear message to consumers. “Our communication concept puts the competitive advantage of local produce firmly in the spotlight, where we can demonstrate traceability back to the individual farmers. Only by working together with our farmers and a transparent supply chain can we deliver consistently high brand quality every day,” says Dr Ingo Stryck, Head of Marketing. As early as 1995, we were the first poultry producers to introduce traceability of origin to our products.

We have established a comprehensive origin and quality concept that applies to all WIESENHOF products. Every chicken product package with fresh or deep-frozen chicken meat is labelled with the trade class and provides information on the farmer or producer cooperative the animal was raised by.


At WIESENHOF, all production stages for chicken and turkey specialities are located in Germany and predominantly at the Group's own production sites. In addition to its own parent flocks, hatcheries and feed mills, the animals are reared by contract farmers in accordance with the WIESENHOF guidelines. Our own abattoirs and processing plants complete the vertical integration cycle.

Of course, the quality and flavour of the products are important, but many consumers are also still interested in the origin of their food. Especially when it comes to sausage products in particular, it is not always easy to find out where the raw materials come from. Meat is often imported from third countries, where labelling the product origin is not mandatory, for the sake of cheaper prices. By communicating our clear slogan, we are able to ensure transparency for both whole animals and processed products such as sausage specialities – and not only through appropriate labelling on the products.




Farmer A,
Lüneburger Heide

"We can be sure our poultry feed is Non-GMO: it's what consumers want – and so do I!"



Farmer B,
Oldenburger Münsterland

"At last, there's emphasis that it's local produce. My customers are happy ... and so am I."



Farmer R,
Landkreis Prignitz

"WIESENHOF stands for reliably safe poultry, quality and regionalit ... because the rearing, feed and slaughter all belong to WIESENHOF!"



Some of our independent contract farmers feature their farms on our WIESENHOF website.

“In Spring 2019, for example, we ran a full page breakfast ad in high circulation daily newspapers and in this way, we reached more than 37 million contacts. Families are our basic target group”, Dr Ingo Stryck adds.



Breakfast campaign ad.

Since 2015, we have also specifically involved our independent contract farmers in our communications, featuring them on our packaging and on our www.wiesenhof.de brand website, where those who are interested can find more information about the farmers breeding our poultry. As at December 2023,



Clear messages on all our packaging.

we had introduced 38 farming families and even today we are still featuring more farmers, always provided, of course, that they take part voluntarily. “Even now, we are receiving a great deal of positives feedback from our farmers. This communication concept resonates equally well with both retailers and consumers. By giving an insight behind the scenes of poultry breeding and processing, we create trust and also ensure transparency in equal measure,” the Head of Marketing summarises.

Sponsorship is another key element of our communications. For more than eleven years, we have been working together with the German Bundesliga football club, Werder Bremen. We have increasingly used this sponsorship to communicate what we mean by sustainable poultry and food production fit for the future in Germany. Many of our subsidiaries also sponsor local sports clubs and also contribute to raising brand awareness in this way. This is complemented by a series of testimonials. For example, since the market launch of the “Chicken Schmiede” in the food retail trade in 2019, Timo Hinkelmann has become the face of this range.

Together with our product developers, he creates exclusive marinades and unusual cuts for this versatile range, which is characterised by creative product names such as “Titan's drumstick”, “Smashing Steaks” or “Metal wings” aimed at catching the eye of shoppers.

Expertise thanks to a variety of studies

We have already presented our eighth WIESENHOF poultry Barbecue Study at the Anuga trade fair in 2023. For our GREEN LEGEND brand, we have conducted two veggie studies and even pushed ahead with a study on cultivated meat. We work together with renowned research institutes enabling us to make representative statements. Our regular surveys tell us, for example, what barbecue fans like and which cuts of meat are in demand. We try to meet demand in the best possible way with our barbecue creations. This is where our specialist knowledge comes in for the development of new products. To date, we have regularly published our studies.

Communicating our plant-based brand

We are also pursuing a clear communication goal in the alternative protein sources business segment: meat-free enjoyment, but with the taste of the original - without soya, without palm oil and without flavour enhancers. Our main target group here are flexitarians. To publicise our brand, we have been cooperating with various influencers right from the start. We have also been participating in Veganuary with our plant-based brand since 2021. In 2023, we used a giant billboard to create a somewhat different green eye-catcher in the trendy Kleistpark neighbourhood in Berlin's Schöneberg district. Since November 2022, a 140 m² vertical garden with a central inset of a giant 100 m² poster has been projected onto an originally grey building façade. For the whole of January 2023, we were present with our “Vegan poultry salami”, which is our most popular cold cut product and features on the billboard.



Marketing campaign for Veganuary 2023.

We asked all our colleagues: “Responsibility at work – what impact does sustainable management have on your daily work?” Here are the replies:

After loading and when a loading ramp is not in use, we close the ramp, we close the high-speed doors and switch off the lights. This saves energy in the form of electricity and ensures that the cold does not escape.

Julian Schimpf and Ulrich Grave, loading/unloading, Oldenburger Geflügelspezialitäten GmbH & Co. KGG

Understanding the interests of our customers, mostly in food retail with regard to sustainability and checking whether these are compatible with the sustainability targets of the PHW Group. One example here could be saving resources by optimising the packaging.

Simon Terhardt, Key Account Manager, WIESENHOF / GEKA frisch + frost Handels GmbH & Co. KG

Sustainability – it feels right and makes economic sense, even if not always immediately within a couple of years, but here at PHW you can sense the values of a family business that thinks across generations. The focal points for us in Bogen in 2023 are the culture of diversity, reviewing waste disposal and conserving natural resources. What remains important are the basics of animal welfare, quality and occupational safety. We have also been supporting a flowering wheat project for years, which even won an award in 2023. We are still at the beginning, but I'm already looking forward to the coming years with many important initiatives.

Simon Blank, MD, Donatal Geflügelspezialitäten subsidiary of LOHMANN & Co. AKTIENGESELLSCHAFT

Sustainable action secures the future of our children. Even small steps and measures can add up to success.

Anja Tomfohrde, Quality Management, Head of QM, Nutrilo GmbH

Sustainability in IT: it looks somewhat contradictory at first glance. Hardly anything is as short-lived as the devices and software versions in IT. All the more important for us to retain, pass on and expand our knowledge and develop it further. That is why we invest intensively in solid vocational training across a broad area.

Uwe Voigtmann, Head of IT Systemtechnology, BWE-Brütereier Weser-Ems GmbH & Co. KG

For me, sustainable working means switching off the office lights to save electricity, only printing out documents I really need in hardcopy form and where possible, printing on both sides of the page. I also always use both sides of my notebooks and notepads.

Eileen Tellbach, Controlling, Oldenburger Geflügelspezialitäten GmbH & Co. KG

In my job, sustainable management means using practices that conserve resources. I take this to mean responsible use of electricity, reducing waste, for example, by paperless working and cultivating social responsibility in the workplace.

Nia Kunst, Trainee, MEGA Tierernährung GmbH & Co. KG

Sustainable management in our daily work for me means, firstly, recognising my personal responsibility for the environment in my own actions and appropriate behaviour on my part. Secondly, it means optimising our laboratory processes through a number of – usually small – steps in such a way that they are more environmentally compatible and energyefficient and consequently achieve greater objectives.

Dr Jan Bernd Barhorst, Head of Lab, Central Laboratory in Lohne of Lohmann & Co. AG

I am delighted to have been working with the Heinz Lohmann Foundation and the ideas of our curators for more than 25 years in a variety of sustainable ways. For example, by focusing on future issues relating to nutrition, eating habits and agriculture, our studies promote education and social debate.

Renate Grothkopf, Management, Heinz Lohmann Stiftung GmbH

Water consumption at the filleting plants has been minimised by application of automatic running times and valve pause control. In addition, various plates and guides were also mounted to cut down the amount of product falling onto the floor, thereby minimising the volume of Category 3 waste. Quality and yield were optimised by regular preventative maintenance and modifications to individual modules of the filleting system.

Thorsten Schoo, Head of Department, Filleting, Oldenburger Geflügel-spezialitäten GmbH & Co. KG

The sensitive and responsible use of the necessary resources in the daily production process and at the same time developing social competencies along the entire value chain should not be forgotten!

Gerhard Heil, MD, Märkische Geflügelhof-Spezialitäten GmbH

In my department, I try to implement that all machines and systems that are no longer needed and can be switched off, are switched off. Especially in the evenings and Saturdays after work. The same applies to PCs. At the end of the working day, all doors and gates are closed, especially those of the cold stores, so that the cold does not escape. Saving resources in goods handling, but also when using work materials such as paper, gloves, aprons and trays.

Bazid Hamo, Production SB, Oldenburger Geflügelspezialitäten GmbH & Co. KG

Sustainable action starts with small deeds and can make a big difference – such as switching off the lights when leaving the room, switching off computers and screens at the end of the working day and handing over hardware that has been written off as a donation to a local school – everyone can do their bit!

Martina Günther, HR Officer, Donatal Geflügelspezialitäten subsidiary of LOHMANN & Co. AKTIENGESELLSCHAFT

With our monthly analyses, we identify potential for improving the Group's sustainable behaviour. In order to work in a resource-efficient manner, reports are made available in data rooms and are no longer printed out. We have introduced the recycling of toner cartridges. We offer PHW Group employees in Germany the opportunity to improve their future pension through a company pension scheme. We only order cars with the latest technology, to reduce the PHW Group's CO₂e emissions. We form car pools, to make the journey to work more sustainable. The annual motor vehicle ensures that staff using cars are safe on the roads. HGV drivers are covered by a specially developed accident insurance policy. Homeworking gives us the opportunity for flexible working and avoiding unnecessary greenhouse emissions.

Ulrike Schmitt, Andre Heller, Johannes Jungclas, Investment controlling, Lohmann & Co. AG

We cultivate local connections for our procurement. It is important to us to work with local partners. In addition, we always check whether anything with only minor damage really needs to be thrown away, or whether repair or remodelling is possible.

Marianne Kallage, Executive Board Secretarial Office, Lohmann & Co. AG.

At Drobimex, we attach great importance to sustainability. In the past few years, we have built modern photovoltaic systems, a wastewater treatment plant and an air filter system. The sausage factory has switched from coal heating to a contemporary gas heating system and all our employees have access to a private healthcare package.

Klaus Roppel, MD, Drobimex Sp. z o.o.

Used shelves or other items of furniture are upgraded so that they can continue to be used. To save electricity, we employ LED bulbs.

Fred Müller, Facility Manager, Oldenburger Geflügelspezialitäten GmbH & Co. KG

About us and this report

The foundation stone for today's PHW Group was laid in 1932 and we can therefore look back on over 90 years of company history. Our strategic focus is based on three business areas strategic orientation to achieve the nutritional mix of the future: poultry, alternative proteins and health. We are responsible for 10,500 (full-time) employees and around 1,000 independent contract farmers. Our Group has more than 45 subsidiaries across Europe. Our core market is Germany, but we also have production sites in Poland, the Netherlands and Bulgaria. In addition, individual subsidiaries also have sales offices in non-EU countries

We are the number one in Germany in the poultry sector and are among the leading companies in Europe. We are particularly well known for our WIESENHOF, Bruzzler and GREEN LEGEND food brands.

In financial year 2021/2022, we achieved sales totalling 3.315 billion euros. Our third sustainability report relates to all three of our business divisions. However, the focus is on food production and our poultry and alternative protein sources businesses.

We support the 17 global sustainable development targets of the United Nations 2030 Agenda (SDGs) and in the report we clarify how our commitment to sustainability contributes to the fulfilment of these targets. In addition, eight PHW locations have already been awarded the ZNU Standard "driving sustainable change" certification of the University of Witten-Herdecke for their holistic sustainability. The ZNU Standard serves to systematise corporate sustainability activities and is intended to support and promote their sustainable development. This sustainability standard is therefore an important building block in our Group of companies and is successfully audited by third parties.



The content presented in this report relates to our activities up to and including 30 October 2023.

In the interests of readability, only the masculine form is used throughout the report. However, this covers all genders.

All the data in the Sustainability Report have been gathered and processed with the utmost care. Nevertheless, errors cannot be completely ruled out.

Central Sustainability Management of the PHW-Gruppe/LOHMANN & Co. AKTIENGESELLSCHAFT
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