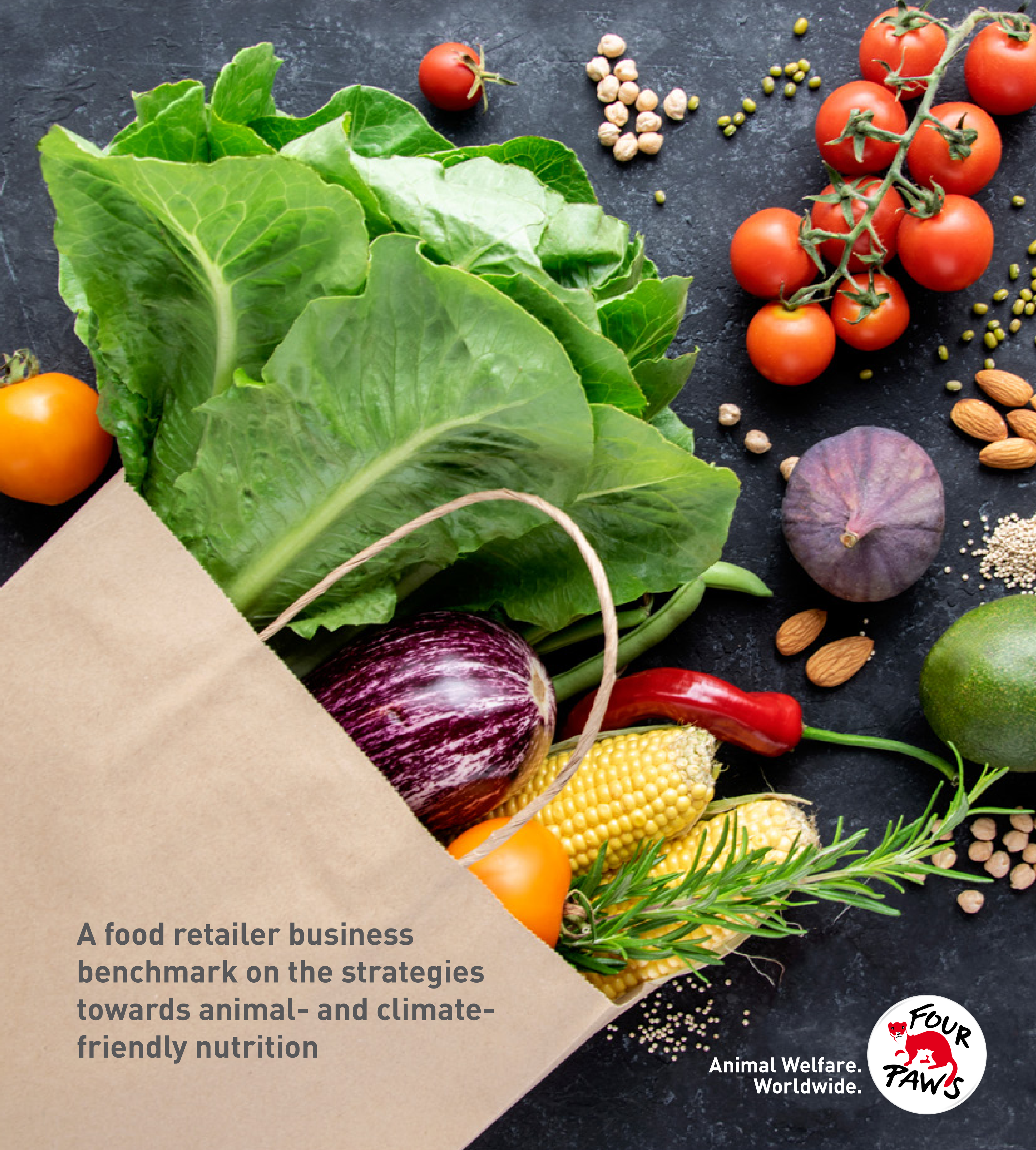
THE ATLAS CHALLENGE

on Supermarkets



A food retailer business benchmark on the strategies towards animal- and climate-friendly nutrition

Animal Welfare. Worldwide.

FOUR PAWS

Contents

1 Introduction

The intensification of animal farming, as well as the excessive consumption of meat and animal-based products, have grave impacts on factory-farmed animals, the environment, climate, and our health. Animal agriculture is one of the leading contributors of the world's greenhouse gas (GHG) emissions[1].

Beef accounts for a quarter of all emissions from animal-based foods, making it the most environmentally damaging product of animal origin, followed by cow's milk and pork[2].

It is not only the impact on the climate that is of concern, but the way in which animals are bred, kept, and raised for human consumption, despite some animal welfare improvements. Factory farming not only causes the animals unnecessary suffering, but can also affect our health, as a heavy reliance on antibiotics in industrial-scale animal agriculture is contributing to antibiotic resistance in humans[3].

Currently, Europeans consume around twice as much meat as the global average, and almost three times as much dairy. This is expected to rise, even in countries like Austria which is currently one of the highest meat consuming countries in Europe[4]. However, in countries like Germany and the United Kingdom, a significant drop in meat consumption and an increase of meat alternative sales has been evident[5]. The Smart Protein Plant-based Food Sector Report, which compiles previously unseen Nielsen MarketTrack data on supermarkets in eleven different European countries from 2017–2020, reported that plant-based milk sales are leading the sector in the majority of EU countries and vegan meat sales are the second highest. The German plant protein sector alone grew by 226%, reaching 181 million Euros in sales[6].

The need to reduce the demand for livestock products is now a scientifically mainstream view[7] and if mankind is to tackle factory farming's contribution to climate breakdown, meat consumption in Europe should drop by 71% by 2030 and by 81% by 2050, and in the United Kingdom by 70% in 2030 and by 80% by 2050[8].

According to the Intergovernmental Panel on Climate Change (IPCC), changing to plant-based diets can halve the GHG emissions of food in comparison to the meat-rich western diets[9]. It is important to note that the IPCC concludes that emission reduction in the agriculture sector is even more urgent than in other sectors.

While products such as veggie sausages and veggie burgers contain numerous ingredients and still require manufacturing, packaging and transport, compared to meat they mostly have between a fifth and less than a tenth of the environmental impact of similar meat products[10].

Considering the implications of factory farming, various stakeholders within the food industry have indeed recognised the need to adapt their policies and strategies in relation to sustainable food offerings. Several companies started addressing these challenges by offering and promoting a growing range of innovative plant-based options as one means to help consumers change their eating habits.

A leading example is Dutch supermarket Albert Heijn who has committed to 60% of its protein sales being plant-based by 2030[11]. According to a recent McKinsey survey, 25% of consumers in the United Kingdom say they have made changes to their diet over the past three years to align with their priorities around wellness and sustainability. The food industry is taking the hint: In 2019, nearly one in four new food-product launches in the United Kingdom was for a vegan product[12] and vegan food sales in Germany increased by 37% during the first quarter of 2020[13].

The plant-based meat market is currently estimated at €10.2 billion and is projected to grow at a compound annual growth rate (CAGR) of 15% in the next 5 years – nearly reaching €24 billion[14].

Meat and dairy production causes significantly more emissions than plant-based foods[2]. Whilst more food retailers step up their game towards net zero goals and acknowledge the link between climate and animal agriculture, none have a binding meat reduction strategy in place or is completely cutting ties with suppliers sourcing animal-derived products from factory farms.

More and more supermarkets are making a positive change by introducing new plant-based products and steadily expanding the range. Increasing plant-based offerings is a good start. However, without clear animal protein reduction targets, supermarkets could end up being classified as stores selling more food and hiding behind offsetting other emissions. It is important to note that an increase of plant-based products does not automatically equate to a reduction of animal proteins and vice versa. Also, reducing one type of animal protein while increasing another does not constitute change towards helping farmed animals, e.g. producing less pork but compensating it with an increase of more poultry and/or fish.

In this report, you will see how some leading supermarkets that were assessed as part of the Atlas Challenge – in Germany, Austria, Switzerland (DACH) and within the United Kingdom (UK) – are ahead of the game, whilst others are falling behind showing a lack of effort in implementing the changes that are required towards more sustainable nutrition initiatives.

Food retailers are a powerful sector playing an influential role not only in consumers' food choices but also in the food supply chain as they have influence over both production and consumption. Consumers are becoming more aware of the negative implications meat and dairy have on the animals and the climate, and their interest in plant-based foods is increasingly motivated by several reasons. Innova Market Insights has published its Top Ten Trends for 2022, which reveal that global sustainability has overtaken personal health as consumers' biggest concern. *'Consumers expressed a sense of shared responsibility for the future of the planet and said this was influencing their everyday purchasing decisions. In terms of food choices, the most popular environmental changes were reducing waste (43% of respondents) and eating in moderation (32%). However, health is still a big concern for many, particularly in the wake of the pandemic. As a result, increasing numbers of consumers are eating more plant-based foods, for both health and environmental reasons. Many companies are attempting to cater to this rising demand, which caused launches of plant-based products to increase by 59% in the year to August 2021.'*[15] As consumer concern about sustainability continues to increase, the trend towards plant-based eating seems to be unstoppable. The UN's People's Climate Vote from 2021 revealed that an overall average of 30% of people in the surveyed 50 countries support the promotion of plant-based diet as a climate policy[16].

According to the research conducted by IBISWorld, environmental awareness and health consciousness will continue to be dominant themes in the industry, likely dictating consumption habits and therefore supermarket product ranges. The companies failing to adapt to changing consumer tastes risk losing market share[17].

Supermarkets are a powerful influencing sector. They have a responsibility to set clear targets to reduce their meat offerings to help stop factory farming and mitigate climate change.

The goal of this ranking was to find out whether the necessary steps to reduce the number of factory-farmed animals and mitigate climate change are being taken. Are binding meat reduction goals a priority and part of the supermarkets' strategies? Is the link between animal welfare, intensive factory farming, and climate change recognised? Or are they shifting the pressure for change on farmers and consumers alone?

Facts

Between one quarter[18] and one third[19] CH_4, N_2O, fluorinated gases of global GHG emissions come from food production[20].

On a commodity-basis, beef and cattle milk are responsible for the most emissions, respectively, contributing 41% and 20% of the livestock sector's overall GHG outputs[21].

Animal agriculture's global GHG emissions equal those from combustion of all transport fuels[22].

The global production of meat, fish from aquaculture, eggs, and dairy uses 83% of the world's agricultural land[23].

The production of beef is the biggest driver of tropical deforestation[24] through the expansion of pasture as well as cropland for oilseeds like soybeans which is mainly used as livestock feed[25].

More antibiotics are given to farm animals than to humans, accelerating antibiotic resistance in humans[26].

Intensive livestock farming can serve as a bridge for viruses to be passed from wild animals to farm animals to humans, thus promoting the spread of future diseases and pandemics[26].

Fish makes up 17% of animal protein consumed globally, and demand is predicted to rise, according to the United Nations Food and Agriculture Organization[27].

Globally, around 318 million tonnes of meat are consumed every year. By 2050, that figure is projected to reach 517 million tonnes[28].

The global food system is the primary driver of biodiversity loss with agriculture being a threat to 86% of the species at risk of extinction[29].

2 The FOUR PAWS Atlas Challenge

The Atlas Challenge by FOUR PAWS is a business benchmark, ranking the main players within the food industry sector with a primary focus on those operating within the DACH region and within the UK on their sustainable business strategies, which push for meat reduction and promote an increase of plant-based and innovative food. The name Atlas was inspired by the Atlas Titan in Greek mythology, who was responsible for bearing the weight of the world on his shoulders and who personified endurance. As such, the Atlas Challenge ranking is one which ranks the companies in the various food industry sectors on their current and future plans of being able to carry the responsibility towards a more sustainable world. What the Atlas Challenge entails is assessing the companies' Corporate Social Responsibility (CSR) report (and/or policies), their product range, their marketing and promotional tactics, and their commitment and progress towards making positive changes for factory-farmed animals, the environment, and the planet as a whole by implementing strategies towards animal-based protein reduction with a main focus on meat reduction and strategising a push for innovative plant-based foods.

Plant-based foods are a booming business. It is mainly flexitarians, who are driving the increase in meat substitutes[30].

FOUR PAWS expects action and progress from industry players committing to the following scope by 2026, as stated in the commitment letter:

- Implementing concrete strategies to promote meat reduction in the CSR and/or separate policy, which includes a clear statement highlighting the environmental and animal welfare benefits of animal protein reduction
- Making sure that the reduction of meat is not compensated with the increase of another animal protein type such as meat with fish, eggs with dairy, red meat with white meat etc.
- Diversifying the product range with plant-based meat substitutes and/or vegetarian alternatives and vegan products
- Working on innovative, plant-based products which will replace or remove current meat products and/or ingredients
- Promoting plant-based meat alternatives and plant-based products amongst consumers to highlight animal- and environmentally friendly food, through platform-specific marketing
- Spreading awareness on the importance of meat reduction, which benefits the planet, through at least two health/environmental/animal welfare initiatives per year

Approximately 80 billion farm animals are slaughtered for human consumption each year[31], which leads to immense animal suffering and damage to the environment. By assessing the level of effort of industry players compared to their competitors, FOUR PAWS can show companies where they stand and encourage them to reassess their policies to highlight and implement binding meat reduction goals.

After previous Atlas Challenge rankings which were conducted on the food delivery services, food producers, and fast-food chains, FOUR PAWS analysed the performance of selected leading supermarket chains in the DACH region and the UK.

3 The Supermarket Ranking

Between January and June 2022, FOUR PAWS assessed a total of 38 supermarkets within DACH and in the UK based on publicly available information within a set number of allocated research hours as well as on the input received from those who actively participated through the questionnaire that was sent out. Any changes that were implemented by the selected food retailers after the set research timeframe were not considered in the ranking. Also, additional information provided by the supermarkets after the publication date could not be taken into account in the indicator overview nor as part of their overall score as this proceeded after the set deadline that was communicated. Some of the information only obtained in the after-launch communication with the supermarkets is mentioned in chapter 4.6 Addendum.

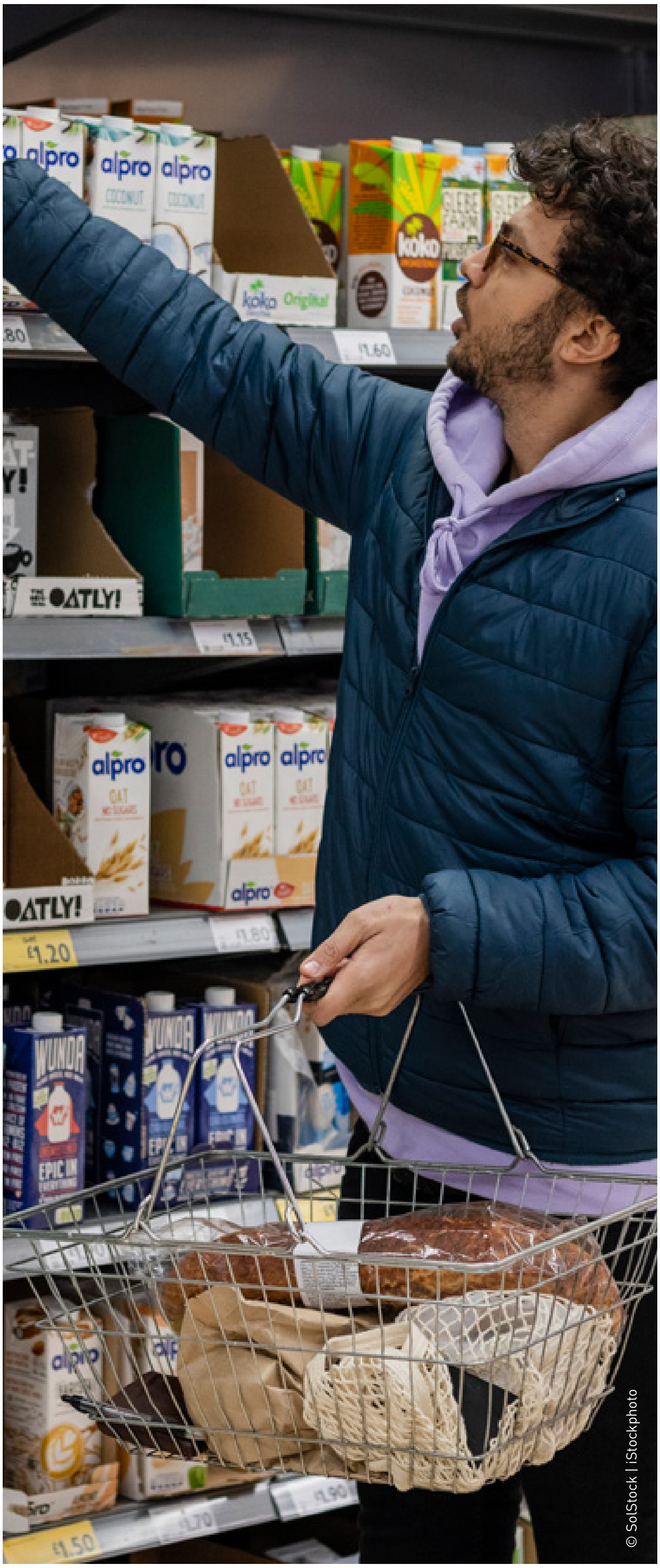
The selection of the supermarkets was based on their market share and sales in the specific selected countries, the influencing impact they have within their region, and the range of foods that are being sold, which includes – but not limited to – meat and other animal-based proteins. Each supermarket was contacted and asked to take part in the Atlas Challenge by filling in a detailed questionnaire on their sustainable strategies towards an animal- and climate-friendly nutrition, which was analysed and scored through a specific point system.

Beyond Meat is expanding its retail shelf space in Europe in response to robust demand[32].

3.1. Scoring and Point System

Each of the questions in the questionnaire was scored with allocated points between 1 to 10, with the highest points awarded to the key questions that supported the goal towards meat/animal protein reduction. Some key questions included were:

- Does your CSR include binding **meat / animal protein reduction strategies?**
- For which specific **animal-derived products** do you have a **statement/policy (animal welfare / fish sourcing)** in place, which focuses on their **reduction?**
- Have you set future targets
  - to **increase innovative plant-based foods** (e.g. x% by 20xx)?
  - to **reduce animal protein** (e.g. x% by 20xx)?
- Which **solutions** are you planning to implement **towards meat reduction?**
- **increase innovative plant-based foods**
- **reduce animal protein**



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Additional points were awarded for their active cooperation and providing information as needed as well as on the transparency level of the publicly available information online. The non-responsive supermarkets' assessment, as well as those who clearly stated they did not wish to take part, was solely based on research by FOUR PAWS. The supermarkets that answered the questionnaire and thus mostly provided additional information received bonus points for their active participation and thus achieved a higher score on average compared to the non-responsive ones.

The total points were then converted into a final percentage.

Some questions included in the questionnaire were not allocated any points but used for acquiring a better overall understanding of the supermarkets' policies, strategies, and progress. Questions that asked about animal welfare, climate action goals as well as pandemic prevention measures were also included.

3.2 The Indicator Overview

The indicator overview displays at a glance how the supermarkets performed regarding the set indicators which are based on the key questions of the questionnaire. They are grouped into four different sections:

- CSR/Policies/Annual Report
- Product Portfolio
- Marketing
- Progress & Commitment

Here is how to read the symbols explained in the legend:

✓ = Yes,
✘ = No,
? = No (clear) information given / could be publicly found within the allocated research time

- **A yes was given in the following cases:**
  - The supermarket filled in the questionnaire and answered yes to the question. For section 1, we asked for a relevant reference to support the claim, e.g. an excerpt from their CSR or one of their policies.
  - A participating supermarket did not answer the question or answered with no, but FOUR PAWS found relevant information during the online research and thus coordinated with the supermarket whether the answer should be changed or not.
  - The supermarket did not answer the questionnaire, but FOUR PAWS was able to find the relevant information during the online research timeframe.

- **A no was given in the following cases:**
  - The supermarket filled in the questionnaire and explicitly answered no to the question.
  - Where multiple choice answers were possible and the supermarket just ticked certain boxes, we rated the unticked ones as a no.
  - For indicator 15 (hybrid/blended products), when we did not find any hybrid products in our online research timeframe.
  - In the marketing section, when we did not find relevant information, because the marketing indicators require a clear and open communication of the respective topics from the supermarket to their customers.

- **A question mark was given in the following cases:**
  - The supermarket did not fill in the questionnaire and FOUR PAWS could not find any or no clear information during the research timeframe.
  - The supermarket filled in the questionnaire
    - but left the question unanswered;
    - gave an answer that did not fit the question;
    - could/did not provide a reference to support their chosen answer.

3.3 The Indicators

As some indicators are based on questions with multiple-choice answers or sub-questions, here are a few Notess on the indicators that might not be self-explanatory:

Indicator 4: Animal agriculture is a main driver of the climate crisis: Does the supermarket acknowledge (a shared) responsibility?

If the supermarket did not answer the question itself, we considered publicly available statements like the retailers being aware that they make profit by trading with animal-based products and also acknowledge the contribution of the livestock sector to the climate crisis e.g. in their climate policies.

Indicator 5: Measures to reduce negative effects of products from factory farms

If a supermarket got a tick in this section, it fulfilled at least one of the following criteria:

- phases out products from factory farms
- phases out soya from forest destruction as animal feed
- phases out meat from Brazil
- others, e.g. supports a protein shift


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Indicator 6: Climate footprint for animal-derived products

This could be an eco-label on animal-based products rating the climate compatibility or a calculation of how much specific animal-based product groups contribute to the supermarket's carbon footprint along the supply chain.

Indicator 7: Measures for prevention of zoonotic diseases as a consequence of factory farming

If a supermarket got a tick here, it fulfilled at least one of the following criteria:

- substitutes meat products with plant-based ones
- sourcing meat from high animal welfare systems beyond legal requirements
- sourcing meat from producers sourcing sustainably sourced feed
- does not sell animal-based products from feedlots (deforestation)
- others, e.g. antibiotic reduction

Indicator 8: Farmer support (animal welfare/biodiversity/climate)

Farmer support can be any educational, practical, or financial initiative helping farmers to improve animal welfare, their climate footprint or biodiversity on farms.

Indicator 14: Percentage for specific products with an animal welfare label

Only the supermarkets that were able to provide the percentage of products with an animal welfare label within a specific product group were given a tick.

Indicator 20: Initiatives/programmes promoting meat reduction

Considered initiatives were e.g. Veganuary, meat-free days, health initiatives like the Eat Well Guide, plant-based challenges and the like.

Indicator 26: Plan to implement stronger climate policy (scope 3)

The supermarkets only received a tick here if they had specific plans/timelines to upgrade their climate policies in regard to their scope 3 emissions (indirect emissions along the value chain including those caused by the production of animal-based products like meat and dairy). Since scope 3 emissions are largely generated outside a company's sphere of influence, their calculation is far more difficult than that of scope 1 and 2 emissions. However, as scope 3 emissions usually account for the largest part of a company's carbon footprint, their calculation is crucial for a scientifically sound reduction of overall emissions[33]. Scope 3 is also called the Corporate Value Chain Standard, which is the first tool companies can use to assess their entire value chain impact and identify the most effective ways to reduce emissions[34]. Therefore, even though being an optional reporting category only[35], scope 3 is key when it comes to companies taking their climate responsibility seriously.

4 Results

Out of the 38 supermarket chains assessed ...

... **NO ONE** scored in the **Very good** category (76 – 100%);

... **14** ranked in the **Good** category (51 – 75%);

... **19** ranked in the **Average** category (26 – 50%);

... **5** ranked in the **Low** category (0-25%);

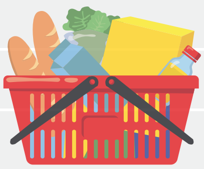
... **19** responded cooperatively;

... **9** let us know they did not want to participate:
Globus (DE), Marktkauf (DE), Penny (AT), Adeg (AT), MPreis* (AT), Spar (CH), Denner (CH), Sainsbury's (UK), Waitrose (UK);

... **10** did not respond at all:
Norma (DE), Unimarkt (AT), Globus (CH), Migros (CH), Asda (UK), Co-op (UK), Iceland (UK), Lidl (UK), M&S (UK), Tesco (UK).

Supermarket participation

Country	Number of supermarket chains	Actively participated	Declined taking part	No reaction	Participation rate [%]
DE	11	8	2	1	73
AT	8	4	3	1	50
CH	9	5	2	2	56
UK	10	2	2	6	20



Due to the bonus points for active cooperation, all supermarkets that filled in the questionnaire can be found in the top half of the ranking with the exception of Volg CH and Manor CH, who did participate, but did not receive the bonus points for transparency of their online information, which was quite limited regarding their CSR reports and policies.

The ranking results will first be compared on country level, using the indicator overview to see how the supermarkets performed in the four different sections: CSR/policies, Product Portfolio, Marketing and Progress & Commitment.

For the supermarket chains that have an international presence and belong to the same supermarket group (e.g. Aldi and Lidl in the DACH region and in the UK or Rewe Group with Penny and Netto in Germany as well as Billa, Penny, and Adeg in Austria), there is a chapter with an international comparison of the results, concentrating on the country-specific differences (chapter 4.5 International Comparison).

* When FOUR PAWS first contacted MPreis, they did not want to be included in the ranking due to lack of resources and because their sustainability strategy was currently being expanded and revised.

The Supermarket Ranking

1	Lidl DE	73%
2	Lidl AT	68%
3	Aldi Süd DE	66%
4	Hofer AT	64%
5	Aldi Nord DE	63%
5	Penny DE	63%
6	Rewe DE	61%
7	Coop CH	59%
7	Kaufland DE	59%
7	Lidl CH	59%
8	Aldi Suisse CH	56%
9	Spar AT	54%
10	Edeka DE	53%
10	Netto Marken-Discount DE	53%
11	Billa AT	50%
12	Morrisons UK	47%
13	Aldi UK	46%
14	Sainsbury's UK	45%
15	TESCO UK	43%
16	M&S UK	42%
16	Migros CH	42%
17	Marktkauf DE	41%
17	Co-op UK	41%
18	Volg CH	40%
19	Waitrose UK	37%
19	ASDA UK	37%
20	Denner CH	36%
21	Globus DE	33%
21	Lidl UK	33%
22	Iceland UK	32%
23	Penny AT	30%
24	ADEG AT	29%
25	Manor Food CH	26%
26	Norma DE	23%
27	Mpreis AT	22%
28	Unimarkt AT	20%
29	Spar CH	14%
30	Globus CH	7%

Supermarket	Aldi Nord	Aldi Süd	Hofer	Aldi Suisse	Aldi	Lidl	Lidl	Lidl	Lidl	Kaufland	Edeka	Netto	Marktkauf	REWE	Penny	Billa	Penny	Adeg	Globus	Norma	MPREIS	Spar	Unimarkt	Coop	Denner	Globus	Manor	Migros	Spar	Volg	ASDA	Co-op	Iceland	M&S	Morrisons	Sainsbury's	TESCO	Waitrose
Country *	DE	DE	AT	CH	UK	DE	AT	CH	UK	DE	DE	DE	DE	DE	DE	AT	AT	AT	DE	DE	AT	AT	AT	CH	CH	CH	CH	CH	CH	CH	UK	UK	UK	UK	UK	UK	UK	UK
CSR / Policy / Annual report																																						
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	?	✓	✓	✓	?	✓	✓	✓	✓	✓
3. Climate Policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	✓	✓	?	?	?	✓	?	?	?	?	✓	?	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	?	?	?	✓	?	✓	✓	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Climate footprint for animal-derived products	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	?	?	?	?	✓	✓	✗	✓	?	✗	✓	?	✗	?	✓	?	?	✓	✓	✓	?
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Farmer support (animal welfare, biodiversity, climate…)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	?	✓	✓	✓	?	✓	✓	✓	✓	✓
9. Binding meat/animal protein reduction strategy	?	?	✗	✗	?	?	✗	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	?	✓	?	✓	✓	?	?	?	?	?	✓	✓	?	✓	✓	✓	?	✓
11. Specific reduction not compensated by an increase of any other animal protein type	?	?	?	?	?	?	?	?	?	?	?	?	?	✓	✓	?	?	?	?	?	?	?	?	✗	?	?	?	?	?	?	?	?	?	?	?	?	?	?
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	?	✓	✓	?	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓
Product Portfolio																																						
13. 50% or less meat from factory farming	?	?	?	?	?	?	?	?	?	✓	?	?	?	?	?	?	?	?	?	?	?	?	?	✓	?	?	?	?	?	✓	?	?	?	?	?	?	?	?
14. Percentage for specific products with animal welfare label	✓	✓	?	?	✓	✓	?	?	?	✓	?	?	?	✓	✓	?	?	?	?	?	?	?	?	✓	✓	?	?	?	?	✓	?	✓	?	✓	?	✓	?	✓
15. Hybrid/blended products	✓	✓	✓	✗	✗	✓	✓	✓	✗	✗	✗	✓	✗	✗	✗	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

* Country abbreviations: Austria (AT), Germany (DE), Switzerland (CH), United Kingdom (UK)

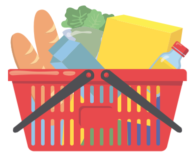
Supermarket / Country	Aldi Nord DE	Aldi Süd DE	Hofer AT	Aldi Suisse CH	Aldi UK	Lidl DE	Lidl AT	Lidl CH	Lidl UK	Kaufland DE	Edeka DE	Netto DE	Marktkauf DE	REWE DE	Penny DE	Billa AT	Penny AT	Adeg AT	Globus DE
Marketing																			
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18. Highlight plant-based foods' positive effects' (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✗	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓
Progress & Commitment																			
21. Future targets to increase plant-based foods	✓	✓	✓	✓	✗	✓	✓	?	?	?	✓	✓	✓	✓	✓	?	?	?	?
22. Future targets to reduce animal protein	?	?	✗	✗	✗	?	✗	?	?	?	✗	✗	✗	✗	✗	?	?	?	?
23. Plan to ban cheap meat advertising	✗	✗	✗	✗	✗	✗	✗	✗	?	✗	✗	✗	✗	✗	✗	?	?	?	?
24. Plan to increase products with high animal welfare labels	✓	✓	✓	✓	✗	✓	✓	✓	?	✓	✗	✗	✗	✓	✓	?	?	?	?
25. Plan to offer cultivated meat (once available)	✗	✗	✗	✗	✗	✗	✗	✗	?	✗	✗	✗	✗	✗	✗	?	?	?	?
26. Plan to implement stronger climate policy (Scope 3)	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	?
27. Plan to limit conventionally produced animal protein	✓	✓	✓	?	✗	✓	✓	?	?	✓	✓	✓	✓	✓	✓	✓	?	?	?
28. Would consider increasing the price of animal-based products	✗	✗	✗	✗	✗	✓	✓	✗	?	✗	?	?	?	✗	✗	✗	?	?	?
29. Would consider 'true cost' price tags	✗	✗	✗	✗	✗	✓	✗	✗	?	✗	?	?	?	✗	✓	✓	?	?	?
30. Aim at price parity for plant-based and animal-derived products	✗	✗	✗	✗	✗	✗	✗	?	?	✗	?	?	?	✗	✗	✗	?	?	?
Additional																			
i. Transparency of accessible information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗

Supermarket / Country	Norma DE	MPREIS AT	Spar AT	Unimarkt AT	Coop CH	Denner CH	Globus CH	Manor CH	Migros CH	Spar CH	Volg CH	ASDA UK	Co-op UK	Iceland UK	M&S UK	Morrisons UK	Sainsbury's UK	TESCO UK	Waitrose UK
Marketing																			
17. Marketing strategy to increase sales of plant-based foods	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18. Highlight plant-based foods' positive effects' (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✗	✗	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	✓	✓	✗	✗	✓	✓	✓
20. Initiatives/programs promoting meat reduction	✗	✓	✗	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Progress & Commitment																			
21. Future targets to increase plant-based foods	?	?	✓	?	✓	✓	?	?	✓	?	?	✓	?	?	✓	✓	?	✓	?
22. Future targets to reduce animal protein	?	?	✗	?	✗	?	?	?	?	?	?	?	?	?	?	?	?	?	?
23. Plan to ban cheap meat advertising	?	?	?	?	✗	?	?	?	?	?	✗	?	?	?	?	?	?	?	?
24. Plan to increase products with high animal welfare labels	?	?	?	?	✓	✓	?	?	?	?	✓	?	?	?	?	?	?	?	?
25. Plan to offer cultivated meat (once available)	?	?	?	?	✗	?	?	?	?	?	✗	?	?	?	?	?	✓	?	?
26. Plan to implement stronger climate policy (Scope 3)	?	?	?	?	✓	?	?	?	?	?	✗	?	✓	?	?	✓	✓	?	✓
27. Plan to limit conventionally produced animal protein	?	?	✓	?	✓	?	?	✓	?	?	✓	?	?	?	✓	?	?	?	?
28. Would consider increasing the price of animal-based products	?	?	?	?	✗	?	?	?	?	?	✗	?	?	?	?	?	?	?	?
29. Would consider 'true cost' price tags	?	?	?	?	✗	?	?	?	?	?	✗	?	?	?	?	?	?	?	?
30. Aim at price parity for plant-based and animal-derived products	?	?	?	?	✗	?	?	?	?	?	✓	✓	✓	?	?	?	?	?	?
Additional																			
i. Transparency of accessible information	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
ii. Responded/Cooperative and provided additional information	✗	✗	✓	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✓	✗	✗	✗

This table provides an overview of the food retailers evaluated as part of the Atlas Challenge ranking and maps their results according to the indicators defined. The indicators were divided into four categories. Note that although a company could fulfil the majority of the criteria, it does not necessarily deem them with the highest score, due to the specific scoring system of the questionnaire. Disclaimer: FOUR PAWS conducted the research based on publicly available information online between January-June 2022. Any changes that were implemented by the selected food retailers after this set time frame, were not taken into account. As part of the research and analysis, FOUR PAWS sent a questionnaire to the selected food retailers for their input. Those who actively refused participation – Globus (DE), Marktkauf (DE), Penny (AT), Adeg (AT), MPreis (AT), Spar (CH), Denner (CH), Sainsbury (UK) and Waitrose (UK) – as well as the non-respondents, were thus evaluated solely by FOUR PAWS' research on publicly available information online. For more information, please contact TheAtlasChallenge@vier-pfoten.org

4.1 Country Ranking: Germany

Supermarket	Lidl	Aldi Süd	Aldi Nord	Penny	REWE	Kaufland	Edeka	Netto	Marktkauf	Globus	Norma	Notes
CSR / Policy / Annual report												
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3. Climate Policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	No climate policy was found for Globus and Norma as the two of four supermarkets of the whole ranking.
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓	✓	?	?	?	✓	?	No information on whether they acknowledge a shared responsibility for animal agriculture being one of the main drivers of the climate crisis given by Edeka Group (incl. Netto and Marktkauf) nor found for Norma.
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	No information on measures to reduce negative effects of products from factory farms found for Globus and Norma.
6. Climate footprint for animal-derived products	✓	✓	✓	✓	✓	✓	✓	?	✓	?	?	No information on a climate footprint for animal-derived products found for Netto, Globus, and Norma.
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8. Farmer support (animal welfare, biodiversity, climate…)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
9. Binding meat/animal protein reduction strategy	?	?	?	?	?	?	?	?	?	?	?	No binding meat/animal protein reduction strategy in place for any of the German supermarkets targeted.
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species…)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Germany is the only country where all reduced at least one specific animal-derived product like meat from Brazil or endangered fish species.
11. Specific reduction not compensated by an increase of any other animal protein type	?	?	?	✓	✓	?	?	?	?	?	?	Only Rewe and Penny answered that they are not compensating this reduction by increasing another animal protein type because they are aiming for an absolute reduction of GHG emissions and not only in individual product groups.
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Product Portfolio												
13. 50% or less meat from factory farming	?	?	?	?	?	✓	?	?	?	?	?	Kaufland is one out of three supermarkets of the whole ranking to state they offer 50% or less meat from factory farming; for all others there was no (clear) information on this.
14. Percentage for specific products with animal welfare label	✓	✓	✓	✓	✓	✓	?	?	?	?	?	Aldi, Lidl, Kaufland, Penny, and Rewe were able to name the percentage for specific products with an animal welfare label; no (clear) information from or for the others.
15. Hybrid/blended products	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	Hybrid/blended products are only offered by Aldi, Lidl, and Netto.
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	



Supermarket	Lidl	Aldi Süd	Aldi Nord	Penny	REWE	Kaufland	Edeka	Netto	Marktkauf	Globus	Norma	Notes
Marketing												
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	Norma is the only retailer of the whole ranking for which no marketing strategy for the increase of plant-based foods was found.
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✗	All supermarkets except Aldi Nord, Netto, and Norma highlighted the positive effects of reducing animal protein.
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	Marktkauf and Norma were the only ones without initiatives promoting meat reduction.
Progress & Commitment												
21. Future targets to increase plant-based foods	✓	✓	✓	✓	✓	?	✓	✓	✓	?	?	Kaufland, Globus, and Norma were the only assessed supermarkets without concrete future targets to increase plant-based foods.
22. Future targets to reduce animal protein	?	?	?	✗	✗	?	✗	✗	✗	?	?	No future targets to reduce animal protein were mentioned nor found.
23. Plan to ban cheap meat advertising	✗	✗	✗	✗	✗	✗	✗	✗	✗	?	?	None plan a ban on cheap meat advertising; no information was found for Globus and Norma.
24. Plan to increase products with high animal welfare labels	✓	✓	✓	✓	✓	✓	✗	✗	✗	?	?	Aldi, Schwarz Group and Rewe Group plan to increase products with high animal welfare labels.
25. Plan to offer cultivated meat (once available)	✗	✗	✗	✗	✗	✗	✗	✗	✗	?	?	None are interested in offering cultivated meat; no clear information was available for Globus and Norma.
26. Plan to implement stronger climate policy (scope 3)	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	All plan to implement a stronger scope 3 climate policy, but there was no information for Globus and Norma.
27. Plan to limit conventionally produced animal protein	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	?	All plan to limit conventionally produced animal protein, but no information was found for Globus and Norma.
28. Would consider increasing the price of animal-based products	✓	✗	✗	✗	✗	✗	?	?	?	?	?	Only Lidl would consider increasing the price of animal-based products as one of two supermarkets of the whole ranking.
29. Would consider true cost price tags	✓	✗	✗	✓	✗	✗	?	?	?	?	?	Only Lidl and Penny would consider 'true cost' price tags as two of three supermarkets of the whole ranking.
30. Aim at price parity for plant-based and animal-derived products	✗	✗	✗	✗	✗	✗	?	?	?	?	?	No action or info on price parity for plant-based and animal-derived products was to be found.
Additional												
i. Transparency of accessible information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	Marktkauf and Globus rejected participation; Norma did not respond at all.

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

Germany had the highest response rate of all countries: Eight out of eleven supermarkets answered the Atlas Challenge questionnaire. For most of the targeted German supermarkets, the expansion and promotion of the plant-based product portfolio is part of the strategy that promotes sustainable nutrition: Germany is the country with the most supermarkets – eight out of eleven – to have concrete future targets to increase plant-based foods in place. Lidl, Aldi, Penny and Rewe classified this increase of plant-based alternatives as a meat reduction strategy; Kaufland mentioned strengthening consumer awareness as such. While the increase of plant-based alternatives and educating the consumer is a good first step, it does not necessarily lead to meat reduction. The above-mentioned supermarkets saw the main responsibility of the product portfolio development with the consumer. They are guided by consumer buying behaviour, thus passing on responsibility to the customer, instead of taking responsibility themselves and setting binding strategies for less meat and other animal products. On a positive note, there is a lot of communication about plant-based products and meat alternatives.

According to the Smart Protein report on the market of plant-based foods Europe, plant-based fish shows the highest growth rate among all plant-based categories in Germany, with 623% over the past two years. It is one of the most lucrative plant-based food categories of the future[36].

The transition to higher husbandry forms (Haltungsformstufen 3 + 4) is a central goal in the CSRs of many of the targeted German supermarkets with the aim to improve keeping standards and increase animal welfare in the future, thus phasing out more and more animal products from intensive keeping systems. Out of the Atlas Challenge ranking, Germany had the most supermarkets which:

- were able to specifically state the percentage for certain product groups with an animal welfare label (six out of eleven);
- plan to increase products with high animal welfare label (six out of eleven), resulting in the best rate together with Switzerland;
- plan to implement a stronger scope 3 climate policy (nine out of eleven);
- plan to limit conventionally produced animal protein (nine out of eleven).

RANKING

1	Lidl DE	73%
2	Aldi Süd DE	66%
3	Aldi Nord DE	63%
3	Penny DE	63%
4	Rewe DE	61%
5	Kaufland DE	59%
6	Edeka DE	53%
6	Netto DE	53%
7	Marktkauf DE	41%
8	Globus DE	33%
9	Norma DE	23%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

HIGHLIGHTS

Lidl (DE)

- wants to achieve a change in livestock farming in Germany through more animal welfare and thus lay the foundation for a sustainable German agriculture – whose current situation is threatening its existence. Their goal: fewer animals, higher quality with no change in the number of farms;
- was the first German retailer to test Eco-Score labelling[37].

Kaufland (DE)

- states that the number of livestock must be reduced in order to reduce greenhouse gas emissions and to enable more animal-friendly production.

Aldi Nord and Süd (DE)

- think that supermarkets are not doing enough to draw attention to the link between livestock farming, meat consumption and the climate crisis;
- launch innovative products to support vegan start-ups under their own brand WHAT'S NEXT on a regular basis, e.g. tuna sandwiches and pizza by Bettaf!sh or No-Bacon by TERRA VEGANE[38];
- claim to systematically remove animal-based small quantities in the recipes, where possible (vegetarianisation + veganisation).

Penny (DE)

- Penny's own-branded Food for Future range stands out compared to other plant-based ranges of competitors due to their strong Klimaleicht mit Penny campaign[39], which draws attention to the connection between animal products and global warming: GHG can be reduced by avoiding meat, eggs or milk and replacing them by pea, soya or lupin;
- runs a sustainability experience market in Berlin-Spandau, where they implement price tags with the 'true costs' for selected products with a high environmental impact to inform their customers of the real cost when certain ecological factors are taken into account[40].

Edeka Group (DE)

- While Netto has been offering hybrid meat products since July 2021, mother company Edeka has followed suit in May 2022, introducing hybrid sausages with 50% veggies for the start of barbecue season, giving customers more options to reduce their own meat consumption[41];
- Edeka stated that a vegan diet helps contribute towards climate protection by helping to reduce the greenhouse gas footprint.
- Edeka launched a vegan special of their customer magazine Mit Liebe ('with love')[42] for Veganuary 2022.

4.2 Country Ranking: Austria

Supermarket	Lidl	Hofer	Spar	Billa	Penny	Adeg	MPreis	Unimarkt	Notes
CSR / Policy / Annual report									
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓	✓	✓	?	No publicly available CSR was found for Unimarkt as one of two supermarkets of the whole ranking.
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓	✓	✓	✓	
3. Climate Policy	✓	✓	✓	✓	✓	✓	?	✓	No climate policy found for MPreis as one of four assessed supermarkets of the whole ranking.
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	?	?	?	?	?	?	Only Hofer and Lidl acknowledged a shared responsibility for animal agriculture being one of the main drivers of the climate crisis.
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	?	?	?	?	?	No information on the measures to reduce the negative effects of products from factory farms was found or mentioned with the exception of Hofer, Lidl, and Spar.
6. Climate footprint for animal-derived products	✓	✓	✓	✓	✓	?	?	✓	No information on a climate footprint for animal-derived products found for Adeg and MPreis.
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	?	?	?	✓	✓	No information on measures for prevention of zoonotic diseases as a consequence of factory farming was found for Billa, Penny, and Adeg as three of four supermarkets of the whole ranking.
8. Farmer support (animal welfare, biodiversity, climate...)	✓	✓	✓	✓	✓	✓	✓	✓	
9. Binding meat/animal protein reduction strategy	✗	✗	?	?	?	?	?	?	No binding meat/animal protein reduction strategy mentioned or found for any of the targeted Austrian supermarkets.
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species...)	✓	✓	✓	✓	✓	?	?	?	No information found on reduction of specific animal-derived products like foie gras or endangered fish species for Adeg, MPreis, and Unimarkt.
11. Specific reduction not compensated by an increase of any other animal protein type	?	?	?	?	?	?	?	?	Referring to indicator 10, none of the assessed retailers have a policy to provide any information on whether this reduction is compensated by increasing another animal protein type.
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓	✓	?	?	No policy on the increase of plant-based foods was found for Mpreis and Unimarkt as two of four supermarkets of the whole ranking.
Product Portfolio									
13. 50% or less meat from factory farming	?	?	?	?	?	?	?	?	No information was given or found on the percentage of meat from factory farming nor specific products with an animal welfare label.
14. Percentage for specific products with animal welfare label	?	?	?	?	?	?	?	?	No information was given or found on the percentage of meat from factory farming nor specific products with an animal welfare label.
15. Hybrid/blended products	✓	✓	✓	✓	✗	✓	✗	✗	Only Penny, Mpreis, and Unimarkt do not offer hybrid products.
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓	✓	✗	✗	MPreis and Unimarkt were the only two supermarkets of the whole ranking to not have clear labelling of plant-based and vegetarian products in place.

Supermarket	Lidl	Hofer	Spar	Billa	Penny	Adeg	MPreis	Unimarkt	Notes
Marketing									
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✓	✓	✓	
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✗	✗	✗	All supermarkets except Adeg, Mpreis, and Unimarkt highlight the positive effects of reducing animal protein.
20. Initiatives/programs promoting meat reduction	✓	✓	✗	✓	✗	✓	✓	✗	Penny, Spar, and Unimarkt were the only assessed supermarkets without initiatives promoting meat reduction.
Progress & Commitment									
21. Future targets to increase plant-based foods	✓	✓	✓	?	?	?	?	?	Hofer, Lidl, and Spar were the only assessed supermarkets with future targets to increase plant-based foods; no information for the rest.
22. Future targets to reduce animal protein	✗	✗	✗	?	?	?	?	?	No future targets to reduce animal protein mentioned nor found.
23. Plan to ban cheap meat advertising	✗	✗	?	?	?	?	?	?	No plans to ban cheap meat advertising mentioned nor found.
24. Plan to increase products with high animal welfare labels	✓	✓	?	?	?	?	?	?	Only Hofer and Lidl plan to increase products with high animal welfare labels; no information for the rest.
25. Plan to offer cultivated meat (once available)	✗	✗	?	?	?	?	?	?	No plans to offer cultivated meat mentioned nor found for any retailer.
26. Plan to implement stronger climate policy (scope 3)	✓	✓	?	?	?	?	?	?	Only Hofer and Lidl said they plan to implement a stronger scope 3 climate policy; no information for the rest.
27. Plan to limit conventionally produced animal protein	✓	✓	✓	✓	?	?	?	?	Hofer, Lidl, Billa, and Spar plan to limit conventionally produced animal protein; no information for the rest.
28. Would consider increasing the price of animal-based products	✓	✗	?	✗	?	?	?	?	Only Lidl would consider increasing the price of animal-based products as one of two supermarkets of the whole ranking.
29. Would consider true cost price tags	✗	✗	?	✓	?	?	?	?	Only Billa would consider 'true cost' price tags as one out of three supermarkets of the whole ranking.
30. Aim at price parity for plant-based and animal-derived products	✗	✗	?	✗	?	?	?	?	Hofer, Lidl, and Billa do not aim at price parity for plant-based and animal-derived products; no information for the rest.
Additional									
i. Transparency of accessible information	✓	✓	✓	✓	✓	✓	✓	✓	
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✓	✗	✗	✗	✗	Penny, Adeg, and MPreis declined to participate and Unimarkt did not react.

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

Similar to the approach of most of the assessed German supermarkets, Lidl expects their expansion of plant-based foods to automatically lead to a reduction of animal protein: *'Through a consistent expansion and promotion of plant-based foodstuffs accompanied by awareness raising for consumers, a reduction of animal protein should automatically be achieved.'* Responsibility is thus shifted to the consumer. Other supermarkets, however, also saw politicians, farmers, and themselves as responsible for the protein shift.

Only two out of eight Austrian supermarkets acknowledged a shared responsibility for animal agriculture being one of the main drivers of the climate crisis, which is the lowest ratio of all the assessed supermarkets in the different countries included.

Measures to reduce the negative effects of products from factory farms were only found for three out of eight supermarkets.

Austria was the only country where not a single assessed supermarket was able to name the percentage for specific products with an animal welfare label.

Five out of eight assessed supermarkets offer hybrid products, more than in any other country that was included in the Atlas Challenge.

While 50% state that they plan to limit conventionally produced animal protein – which is the highest rate after the German targeted supermarkets – it is still debatable which labels stand for high animal welfare and really bring a clear welfare benefit compared to conventional unlabelled products.

RANKING

1	Lidl AT	68%
2	Hofer AT	64%
3	Spar AT	54%
4	Billa AT	50%
5	Penny AT	30%
6	ADEG AT	29%
7	Mpreis AT	22%
8	Unimarkt AT	20%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

HIGHLIGHTS

Hofer (AT)

- aims to reduce the negative impact of food on the climate by expanding their range of vegan, vegetarian and organic products;
- addresses the negative effects of animal products on the climate in their brochure *50 Tipps für den Klimaschutz im Alltag*[43] *('50 tips for climate protection in everyday life').*

Penny (AT)

- plans to increase their plant-based Food For Future products because it is aware that the production of vegan food generates fewer CO_2 emissions than the production of animal products.

Billa (AT)

- opened its first 100% plant-based store Billa Pflanzilla in Vienna with more than 2,500 products, innovative services and inspirational ideas in September 2022[44].

4.3 Country Ranking: Switzerland

Supermarket	Coop	Lidl	Aldi Suisse	Migros	Volg	Denner	Manor	Spar	Globus	Notes
CSR / Policy / Annual report										
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓	✓	✓	✓	?	No publicly available CSR was found for Globus as one of two supermarkets of the whole ranking.
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓	✓	✓	?	?	No animal welfare policy was found for Spar and Globus as two of three supermarkets of the whole ranking.
3. Climate Policy	✓	✓	✓	✓	✓	✓	✓	✓	?	No climate policy was found for Globus.
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓	?	✓	?	?	No information on whether they acknowledge a shared responsibility for animal agriculture being one of the main drivers of the climate crisis for Denner, Spar, and Globus.
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓	✓	✓	?	?	No information on measures to reduce the negative effects of products from factory farms for Spar and Globus.
6. Climate footprint for animal-derived products	✗	✓	✗	✓	✗	✓	✗	?	?	Only for Lidl, Migros, and Denner information on a climate footprint for animal-derived products was found, which resulted in the lowest country rate (refer to 4.6 Addendum).
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓	✓	✓	✓	?	No information on the measures for prevention of zoonotic diseases as a consequence of factory farming for Globus as one out of four assessed supermarkets of the whole ranking.
8. Farmer support (animal welfare, biodiversity, climate…)	✓	✓	✓	✓	✓	✓	✓	?	?	
9. Binding meat/animal protein reduction strategy	?	?	✗	?	?	?	?	?	?	No binding meat/animal protein reduction strategy mentioned or found for any of the Swiss supermarkets.
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species…)	✓	✓	✓	?	?	✓	?	?	?	Policy on reduction of specific animal-derived products like foie gras or endangered fish species only found for Coop, Lidl, Aldi, and Denner which resulted in the lowest country rate (refer to 4.6 Addendum).
11. Specific reduction not compensated by an increase of any other animal protein type	✗	?	?	?	?	?	?	?	?	Referring to indicator 10, Coop does not rule out that the mentioned reduction is compensated by increasing another animal protein type; no information for the rest.
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓	✓	✓	?	?	No information on the increase of plant-based foods for Spar and Globus as two of four supermarkets of the whole ranking.
Product Portfolio										
13. 50% or less meat from factory farming	✓	?	?	?	✓	?	?	?	?	Only Coop and Volg as two of only three supermarkets of the whole ranking claim to sell 50% or less meat from factory farming.
14. Percentage for specific products with animal welfare label	✓	?	?	?	✓	✓	?	?	?	Only Coop, Volg, and Denner could state a percentage of specific products with an animal welfare label; no information for the rest.
15. Hybrid/blended products	✗	✓	✗	✓	✗	✗	✗	✗	✗	Lidl und Migros were the only Swiss upermarkets offering hybrid products (refer to 4.6 Addendum).
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Supermarket	Coop	Lidl	Aldi Suisse	Migros	Volg	Denner	Manor	Spar	Globus	Notes
Marketing										
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✗	✓	✗	✓	✗	As three of four supermarkets of the whole ranking, Volg, Manor, and Globus are not highlighting plant-based foods' positive effects.
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✓	✓	✗	✗	✗	✗	✗	Only Coop, Lidl, Aldi, and Migros highlight the positive effects of reducing animal protein.
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓	✓	✗	✓	✓	All except for Manor have initiatives promoting meat reduction.
Progress & Commitment										
21. Future targets to increase plant-based foods	✓	?	✓	✓	?	✓	?	?	?	Coop, Aldi, Migros, and Denner were the only assessed supermarkets with future targets to increase plant-based foods; no information for the rest.
22. Future targets to reduce animal protein	✗	?	✗	?	?	?	?	?	?	No future targets to reduce animal protein mentioned nor found.
23. Plan to ban cheap meat advertising	✗	✗	✗	?	✗	?	?	?	?	No plans to ban cheap meat advertising mentioned or found (refer to 4.6 Addendum).
24. Plan to increase products with high animal welfare labels	✓	✓	✓	?	✓	✓	?	?	?	Coop, Lidl, Aldi, Volg, and Denner plan to increase products with high animal welfare labels; no information for the rest.
25. Plan to offer cultivated meat (once available)	✗	✗	✗	?	✗	?	?	?	?	No plans to offer cultivated meat mentioned or found (refer to 4.6 Addendum).
26. Plan to implement stronger climate policy (scope 3)	✓	✓	✓	?	✗	?	?	?	?	Only Coop, Lidl, and Aldi said they plan to implement a stronger scope 3 climate policy; Volg does not; no information for the rest.
27. Plan to limit conventionally produced animal protein	✓	?	?	?	✓	?	✓	?	?	Only Coop, Volg, and Manor plan to limit conventionally produced animal protein; no information for the rest.
28. Would consider increasing the price of animal-based products	✗	✗	✗	?	✗	?	?	?	?	Consideration to increase the price of animal-based products and 'true cost' price tags were neither mentioned nor found (refer to 4.6 Addendum).
29. Would consider true cost price tags	✗	✗	✗	?	✗	?	?	?	?	Consideration to increase the price of animal-based products and 'true cost' price tags were neither mentioned nor found (refer to 4.6 Addendum).
30. Aim at price parity for plant-based and animal-derived products	✗	?	✗	?	✓	?	?	?	?	Only Volg as one of three supermarkets of the whole ranking aims at price parity for plant-based and animal-derived products.
Additional										
i. Transparency of accessible information	✓	✓	✓	✓	✗	✓	✗	✗	✗	Transparency of accessible information not evident for Volg, Manor, Spar, and Globus.
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✗	✓	✗	✓	✗	✗	Denner and Spar declined to participate; Globus and Migros did not respond.

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

RANKING

Rank		Supermarket	Score
1	Coop	Coop CH	59%
1	Lidl	Lidl CH	59%
2	Aldi Suisse	Aldi Suisse CH	56%
3	Migros	Migros CH	42%
4	Volg	Volg CH	40%
5	Denner	Denner CH	36%
6	Manor	Manor Food CH	26%
7	Spar	Spar CH	14%
8	Globus	Globus CH	7%

Very good: 76-100%, **Good**: 51-75%, **Average**: 26-50%, **Low**: 0-25%

In the whole ranking, there were only four supermarkets that did not receive points for the transparency of accessible information, and these were all from the targeted supermarkets within Switzerland: Volg, Globus, Manor, and Spar. Since Volg and Manor answered our questionnaire providing additional information, they received extra points, which could slightly make up for their non-transparent information available online. The two lowest scores were achieved by Spar (14%) and Globus (7%). Globus was the only Swiss supermarket with no CSR to be found, which is why in the first section on CSR and policies, there was no valuable information that would have justified a tick or any points. The same applied to the animal welfare policy, which could not be found online for Globus nor Spar either as well as a lot of other topics that were part of the policy section.

Coop emphasised that the Swiss animal welfare law is stricter compared to the EU standard, e.g. in Switzerland, the caging of laying hens is completely banned and interventions on animals like castration or tail docking are only allowed under anaesthesia[45]. This is why Coop is concentrating on Swiss products. Migros has a control and certification programme in place that ensures that demands are fulfilled for imported products as well; all companies along the supply chain are controlled by external, independent supervisory authorities regarding animal welfare and traceability on a yearly basis[46].

More than 50% of the Swiss assessed supermarkets plan to increase products with high animal welfare labels (which resulted as the highest rated together with Germany).

Coop, Aldi Suisse, Volg see the consumers as the main driver for development and expansion of their product portfolio.

HIGHLIGHTS

Coop (CH)

- has their own high-animal welfare brands and pioneer projects like mother-bonded calf rearing, dual-purpose chicken breeds, alpine and meadow pigs[47];
- partnered with Swiss start-up Luya to offer upcycled meat alternative chunks in order to reduce food waste[48].

Lidl (CH)

- wants to indirectly influence a reduced consumption of meat/dairy and eggs by promoting the offer and sale of products without animal ingredients;
- aims to convince customers of the quality of vegan products as a protein shift to more plant-based sources can have a lasting effect on dietary habits;
- *'One third of the consumption-related environmental impact in Europe is due to the food we eat. Animal husbandry is considered particularly serious: it causes significantly more greenhouse gas emissions than the cultivation of plant-based foods. For the production of one kilo of beef, about 15 kilos of CO_2 are emitted, for beans it is less than 1 kilo of CO_2.'*[49]

Migros-Group

- In 2021, Migros introduced M-Check[50], rating the climate compatibility and animal welfare of its products, followed by Denner introducing IMPACT[51], an adapted version of Migros' M-Check, in May 2022.

4.4 Country Ranking: United Kingdom

CSR / Policy / Annual report

Supermarket	Morrisons	Aldi	Sainsbury's	Tesco	M&S	Co-op	Waitrose	Asda	Lidl	Iceland	Notes
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	No animal welfare policy found for Iceland.
3. Climate Policy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6. Climate footprint for animal-derived products	✓	✓	✓	✓	?	✓	?	?	✓	?	No information on a climate footprint for animal-derived products found for M&S, Waitrose, Asda, and Iceland.
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8. Farmer support (animal welfare, biodiversity, climate…)	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	Iceland was the only supermarket without information on farmer support.
9. Binding meat/animal protein reduction strategy	?	?	?	?	?	?	?	?	?	?	No binding meat/animal protein reduction strategy found for any of the assessed supermarkets in the UK.
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species…)	✓	✓	✓	?	✓	✓	✓	✓	✓	?	No information found on the reduction of specific animal-derived products like foie gras or endangered fish species for Tesco and Iceland.
11. Specific reduction not compensated by an increase of any other animal protein type	?	?	?	?	?	?	?	?	?	?	No information for any of the targeted supermarkets whether the specific reduction (under indicator 10) is compensated by increasing another animal protein type.
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Product Portfolio

Supermarket	Morrisons	Aldi	Sainsbury's	Tesco	M&S	Co-op	Waitrose	Asda	Lidl	Iceland	Notes
13. 50% or less meat from factory farming	?	?	?	?	?	?	?	?	?	?	No information on the percentage of meat from factory farming for any of the assessed supermarkets.
14. Percentage for specific products with animal welfare label	?	✓	✓	?	✓	✓	✓	?	?	?	Only Aldi, Sainsbury's, M&S, Co-op, and Waitrose were able to name a percentage for specific products with an animal welfare label.
15. Hybrid/blended products	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	Tesco was the only targeted supermarket to offer.
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Supermarket	Morrisons	Aldi	Sainsbury's	Tesco	M&S	Co-op	Waitrose	Asda	Lidl	Iceland	Notes 
Marketing											
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	Only Lidl as one of four supermarkets of the whole ranking does not highlight plant-based foods' positive effects.
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✗	✗	✓	✓	✗	✓	✓	✗	✗	✓	Sainsbury's, Tesco, Co-op, Waitrose, and Iceland highlight the positive effects of reducing animal protein.
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Progress & Commitment											
21. Future targets to increase plant-based foods	✓	✗	?	✓	✓	?	?	✓	?	?	Morrisons, Tesco, M&S, and Asda have future targets in place to increase plant-based foods; Aldi does not; no information found for the rest.
22. Future targets to reduce animal protein	?	✗	?	?	?	?	?	?	?	?	No information on future targets to reduce animal protein to be found; Aldi negated.
23. Plan to ban cheap meat advertising	?	✗	?	?	?	?	?	?	?	?	No information on plans to ban cheap meat advertising to be found; Aldi negated.
24. Plan to increase products with high animal welfare labels	?	✗	?	?	?	?	?	?	?	?	No information on plans to increase products with high animal welfare labels; Aldi negated.
25. Plan to offer cultivated meat (once available)	?	✗	✓	?	?	?	?	?	?	?	Sainsbury was the only supermarket of the whole ranking with a positive stance towards cultivated meat; Aldi negated; no information on the rest.
26. Plan to implement stronger climate policy (scope 3)	✓	✗	✓	?	?	✓	✓	?	✓	?	Only Morrisons, Sainsbury's, Co-op, Waitrose, and Lidl said they plan to implement a stronger scope 3 climate policy; Aldi does not; no information found on the other targeted supermarkets.
27. Plan to limit conventionally produced animal protein	?	✗	?	?	✓	?	?	?	?	?	Only M&S plan to limit conventionally produced animal protein; Aldi does not; no information found on the other targeted supermarkets.
28. Would consider increasing the price of animal-based products	?	✗	?	?	?	?	?	?	?	?	No information whether supermarkets would consider increasing the price of animal-based products or 'true cost'; Aldi negated.
29. Would consider true cost price tags	?	✗	?	?	?	?	?	?	?	?	No information whether supermarkets would consider increasing the price of animal-based products or 'true cost'; Aldi negated.
30. Aim at price parity for plant-based and animal-derived products	?	✗	?	?	?	✓	?	✓	?	?	Only Co-op and Asda as two of three supermarkets of the whole ranking aim for price parity for plant-based and animal-derived products.
Additional											
i. Transparency of accessible information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ii. Responded/Cooperative and provided additional information	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	Only Morrisons and Aldi filled in the questionnaire and were actively cooperative in providing information. Sainsbury's and Waitrose declined to participate, and the rest did not react.

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

Compared to the DACH-region with scores between 73% and 7%, the UK assessed supermarkets' scores are all in a relatively narrow range between 47% and 32% which resulted in the **Average** category.

In summary, here's why:

- Most of the UK supermarkets have very comprehensive and publicly available CSRs and policies. The UK was the only country as part of the Atlas Challenge where:
  - all targeted supermarkets have a (publicly available) scope 3 climate policy, where they explicitly state that the scope 3 emissions make up for the majority of GHG emissions, but that it requires working with the suppliers and is therefore a lot more difficult to control/assess.
  - statements were found for all supermarkets in which they acknowledge a (shared) responsibility for animal agriculture being one of the main drivers of the climate crisis (although only two participated actively in the Atlas Challenge by answering the questionnaire).
  - all supermarkets have at least one measure in place to reduce the negative effects of products from factory farms.

- Only in the UK, each of the assessed supermarkets has an initiative or a programme promoting meat reduction in place; not only Veganuary, which was the most popular in the other countries, but also initiatives like Meat Free Monday (Asda, M&S) and Sparking Change National Challenge by M&S.

Although only two UK supermarkets filled in the questionnaire, FOUR PAWS was able to fill a lot of questions in the questionnaire by researching the relevant public information found online. Thus, the assessed supermarkets in the UK received slightly better results than non-responding supermarkets from other countries. The two supermarkets that filled in the questionnaire were rewarded bonus points for their cooperation and therefore made it to ranks 1 and 2.

It is worth mentioning that all assessed UK supermarkets signed the collective commitment to action under the Meat In A Net Zero World initiative:

'There has never been a more critical time for action. We are facing a warming world, with more people and less land, water, energy, and other resources to go around. As an industry we are committing to work together to ensure that we use these resources efficiently and minimise our impact on the environment, whilst safeguarding the health and welfare of our animals and the livelihoods of our producers.'[52]

Interestingly, in the compiled set of actions for the UK meat industry to work from farm to fork to improve efficiency and productivity, minimise waste, protect natural assets and reduce global warming, meat reduction was not mentioned.

RANKING

1	Morrisons UK	47%
2	Aldi UK	46%
3	Sainsbury's UK	45%
4	Tesco UK	43%
5	M&S UK	42%
6	Co-op UK	41%
7	Waitrose UK	37%
7	Asda UK	37%
8	Lidl UK	33%
9	Iceland UK	32%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

- The UK is the country with the lowest country rate regarding plans to limit conventionally produced animal protein, which only M&S answered with a clear yes.

- The necessity of a protein shift and the tracking of overall protein sales was found in many of the policies of the UK supermarkets. In this regard, the assessed supermarkets in the UK are a few steps ahead of the DACH region, where this topic was not so openly communicated as of yet.

HIGHLIGHTS

Aldi (UK)

- supports a protein shift in its Health and Nutrition Strategy in cooperation with the British Dietetic Association: Key messages were to opt for higher welfare meat and to increase plant-based protein, aiming for a 50/50 split between animal and plant sources[53].

Sainsbury's (UK)

- recommends following the Eatwell Guide[54] (UK dietary guidelines for health) with an emphasis on prioritising plant proteins such as beans and pulses, also to partly reduce the meat content of meals[55];
- created the Future of Food report[56]: a scientifically substantiated outlook on a future with animal- and planet-friendly food.

Tesco (UK)

- said it 'recognises that the whole country needs to reduce meat and dairy consumption' but also conceded that *'right now 74 percent of shoppers don't want supermarkets to remove meat'* [57];
- has committed to reporting the sales of plant-based proteins as a percentage of overall protein sales every year to track progress (protein disclosure)[58].

M&S (UK)

- provides an interactive map for product traceability (fish/beef/milk)[59];
- Sparking Change National Challenge[60]: challenge to help M&S customers explore healthy and budget-friendly diets that are also good for the planet. Three months after the final challenge, 90% were eating less meat.

Co-op (UK)

- will review their data on the split between animal and plant-based protein sales as part of the WWF Sustainable Basket initiative to halve the impact of the average UK shopping basket[61];
- is price matching own-branded plant-based foods to meat-based equivalents ('Go plant-based without the price tag')[62].

Waitrose (UK)

- acknowledges the need to end farming's role as a key driver of greenhouse gas emissions and to develop protein diversification: *'reduce our dietary reliance on meat and embrace more plant-based alternatives'*[63];
- has partnered with plant-based cheesemonger *La Fauxmagerie* to distribute its supermarket range of dairy-free cheeses[64].

Asda (UK)

- invested more than GBP 6 million to lower the price of Free From products including plant-based products to expand access to these lifestyle choices[65].

Iceland (UK)

- opted to expand the meat alternative range at the expense of launching new meat-based products in their core range, being aware that customers are becoming more conscious of the environmental impact of the food on their plates[66].

4.5 International Comparison

4.5.1 Schwarz Group (Lidl & Kaufland)

Supermarket	Lidl				Kaufland
Country	DE	AT	CH	UK	DE
CSR / Policy / Annual report					
1. Annual report / CSR (publicly available)	✓	✓	✓	✓	✓
2. Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓
3. Climate Policy	✓	✓	✓	✓	✓
4. Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓
5. Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓
6. Climate footprint for animal-derived products	✓	✓	✓	✓	✓
7. Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓
8. Farmer support (animal welfare, biodiversity, climate...)	✓	✓	✓	✓	✓
9. Binding meat/animal protein reduction strategy	?	✗	?	?	?
10. Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/ endangered species...)	✓	✓	✓	✓	✓
11. Specific reduction not compensated by an increase of any other animal protein type	?	?	?	?	?
12. Policy on the increase of plant-based foods	✓	✓	✓	✓	✓
Product Portfolio					
13. 50% or less meat from factory farming	?	?	?	?	✓
14. Percentage for specific products with animal welfare label	✓	?	?	?	✓
15. Hybrid/blended products	✓	✓	✓	✗	✗
16. Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓

Lidl DACH and Kaufland all filled in the questionnaire, only Lidl UK did not. There was a lively positive exchange with Lidl in the DACH region, especially Germany, and Kaufland as well.

Lidl DE and AT are not far apart and achieved the two highest scores of the whole Atlas Challenge ranking resulting in the Good category. Lidl CH and Kaufland followed suit on a shared rank 7 – still within the Good category – and Lidl UK on 21 in the Average category. Of the three supermarket chains having been internationally compared, the biggest score difference of 40 percentage points is found between Lidl DE with 73% and Lidl UK with only 33%. This is down to Lidl UK not having participated, but also shows that Lidl UK is lagging behind the DACH region in certain areas.

All policies of the Schwarz Group are largely coordinated, so there are no big differences in the CSR section of their policies within the indicator overview. Lidl AT answered the question about a binding meat/animal protein reduction strategy (9) with a clear no, while Lidl DE and CH referred to their policies on the increase of plant-based alternatives, which is a good first step. This does not automatically lead to a reduction of meat/animal protein. Thus, FOUR PAWS did not consider their answers for indicator 9.

Kaufland was the only one to state that 50% or less of their meat comes from factory farming (13). Lidl AT, CH, and UK were not able to name the percentage of specific products with an animal welfare label (14); Lidl in the DACH region is leading the way when it comes to hybrid products, which were not available at Kaufland nor Lidl UK. Lidl DACH also claimed it is offering hybrid products not only for climate reasons and consumer demand, but also towards supporting meat reduction.

Supermarket	Lidl	Lidl	Lidl	Lidl	Kaufland
Country	DE	AT	CH	UK	DE
Marketing					
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✗	✓
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✓	✗	✓
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓
Progress & Commitment					
21. Future targets to increase plant-based foods	✓	✓	?	?	?
22. Future targets to reduce animal protein	?	✗	?	?	?
23. Plan to ban cheap meat advertising	✗	✗	✗	?	✗
24. Plan to increase products with high animal welfare labels	✓	✓	✓	?	✓
25. Plan to offer cultivated meat (once available)	✗	✗	✗	?	✗
26. Plan to implement stronger climate policy (scope 3)	✓	✓	✓	✓	✓
27. Plan to limit conventionally produced animal protein	✓	✓	?	?	✓
28. Would consider increasing the price of animal-based products	✓	✓	✗	?	✗
29. Would consider true cost price tags	✓	✗	✗	?	✗
30. Aim at price parity for plant-based and animal-derived products	✗	✗	?	?	✗
Additional					
i. Transparency of accessible information	✓	✓	✓	✓	✓
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✗	✓

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

Lidl UK was the only assessed supermarket to not have highlighted plant-based foods' positive effects nor the positive effects of reducing animal protein.

Looking at the Progress & Commitment section, it is evident that most criteria were fulfilled by the ranking leaders Lidl DE and AT: They were the only ones with future targets to increase plant-based foods, plan to limit conventionally produced animal protein and would consider increasing the price of animal-based products. Lidl DE was the only one (and one out of the three supermarkets of the whole ranking) who would consider 'true cost' price tags.

RANKING

1	Lidl DE	73%
2	Lidl AT	68%
7	Kaufland DE	59%
7	Lidl CH	59%
21	Lidl UK	33%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

4.5.2 Aldi

	Supermarket	Aldi Süd	Hofer	Aldi Nord	Aldi Suisse	Aldi
	Country	DE	AT	DE	CH	UK
CSR / Policy / Annual report						
1.	Annual report / CSR (publicly available)	✓	✓	✓	✓	✓
2.	Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓
3.	Climate Policy	✓	✓	✓	✓	✓
4.	Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	✓	✓	✓
5.	Measures to reduce negative effects of products from factory farms	✓	✓	✓	✓	✓
6.	Climate footprint for animal-derived products	✓	✓	✓	✗	✓
7.	Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	✓	✓	✓
8.	Farmer support (animal welfare, biodiversity, climate…)	✓	✓	✓	✓	✓
9.	Binding meat/animal protein reduction strategy	?	✗	?	✗	?
10.	Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species…)	✓	✓	✓	✓	✓
11.	Specific reduction not compensated by an increase of any other animal protein type	?	?	?	?	?
12.	Policy on the increase of plant-based foods	✓	✓	✓	✓	✓
Product Portfolio						
13.	50% or less meat from factory farming	?	?	?	?	?
14.	Percentage for specific products with animal welfare label	✓	?	✓	?	✓
15.	Hybrid/blended products	✓	✓	✓	✗	✗
16.	Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓

All targeted Aldi supermarkets featured in the Atlas Challenge filled in the questionnaire. Aldi Nord and Süd DE, Hofer and Aldi Suisse aligned some of their answers. There was a vivid exchange with ALDI in the DACH region, while Aldi UK answered only after having received their final score.

The scores of Aldi Süd DE, Hofer, and Aldi Nord DE resulted very closely together which earned them ranks 3 to 5. Aldi Suisse followed on rank 8 – still within the **Good** category and Aldi UK on 13 in the upper **Average** category. Aldi has the closest results of all chains with a difference of 20 percentage points between the best, Aldi Süd DE, and the lowest, Aldi UK. Just like with Lidl, Aldi UK is falling behind the DACH region.

Aldi's policies are largely coordinated, so there are no big differences in the CSR section of the indicator overview.

Aldi AT and CH answered the question about a binding meat/animal protein reduction strategy (9) with a clear no. While Aldi UK left the answer open, Aldi Süd and Nord in Germany mentioned their policy on the increase of plant-based alternatives, which does not equal a binding meat reduction strategy and was therefore not considered for indicator 9.

Hofer and Aldi Suisse were not able to name the percentage for specific products with an animal welfare label (14).

In their marketing tactics, Aldi Nord and UK do not highlight the positive effects of reducing animal protein (19).

Looking at the Progress & Commitment section, it becomes evident that Aldi Süd DE, Hofer, and Aldi Nord DE fulfilled more criteria than Aldi Suisse and UK. Aldi UK was the only targeted supermarket without specific future targets to

Supermarket	Aldi Süd	Hofer	Aldi Nord	Aldi Suisse	Aldi
Country	DE	AT	DE	CH	UK
Marketing					
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✓
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✗	✓	✗
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✓	✓
Progress & Commitment					
21. Future targets to increase plant-based foods	✓	✓	✓	✓	✗
22. Future targets to reduce animal protein	?	✗	?	✗	✗
23. Plan to ban cheap meat advertising	✗	✗	✗	✗	✗
24. Plan to increase products with high animal welfare labels	✓	✓	✓	✓	✗
25. Plan to offer cultivated meat (once available)	✗	✗	✗	✗	✗
26. Plan to implement stronger climate policy (scope 3)	✓	✓	✓	✓	✗
27. Plan to limit conventionally produced animal protein	✓	✓	✓	?	✗
28. Would consider increasing the price of animal-based products	✗	✗	✗	✗	✗
29. Would consider true cost price tags	✗	✗	✗	✗	✗
30. Aim at price parity for plant-based and animal-derived products	✗	✗	✗	✗	✗
Additional					
i. Transparency of accessible information	✓	✓	✓	✓	✓
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✓	✓

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

increase plant-based foods (21), no plan to increase products with high animal welfare labels (24), no plan to implement a stronger scope 3 climate policy (26), and no plan to limit conventionally produced animal protein (27). Aldi Suisse did not provide an answer regarding indicator 27.

RANKING

3	Aldi Süd DE	66%
4	Hofer AT	64%
5	Aldi Nord DE	63%
8	Aldi Suisse CH	56%
13	Aldi UK	46%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

4.5.3 Rewe Group

	Supermarket	REWE	Penny	Billa	Penny	Adeg
	Country	DE	DE	AT	AT	AT
CSR / Policy / Annual report						
1.	Annual report / CSR (publicly available)	✓	✓	✓	✓	✓
2.	Animal welfare = essential part of purchasing policy	✓	✓	✓	✓	✓
3.	Climate Policy	✓	✓	✓	✓	✓
4.	Animal agriculture is a main driver of climate crisis → acknowledge (shared) responsibility	✓	✓	?	?	?
5.	Measures to reduce negative effects of products from factory farms	✓	✓	?	?	?
6.	Climate footprint for animal-derived products	✓	✓	✓	✓	?
7.	Measures for prevention of zoonotic diseases as a consequence of factory farming	✓	✓	?	?	?
8.	Farmer support (animal welfare, biodiversity, climate...)	✓	✓	✓	✓	✓
9.	Binding meat/animal protein reduction strategy	?	?	?	?	?
10.	Policy on reduction of specific animal-derived products (e.g. meat from Brazil, meat from live plucking, foie gras, exotic/endangered species...)	✓	✓	✓	✓	?
11.	Specific reduction not compensated by an increase of any other animal protein type	✓	✓	?	?	?
12.	Policy on the increase of plant-based foods	✓	✓	✓	✓	✓
Product Portfolio						
13.	50% or less meat from factory farming	?	?	?	?	?
14.	Percentage for specific products with animal welfare label	✓	✓	?	?	?
15.	Hybrid/blended products	✗	✗	✓	✗	✓
16.	Clear labelling of plant-based and vegetarian products (V-label)	✓	✓	✓	✓	✓

Of the supermarkets belonging to Rewe Group, the questionnaire was not answered by Penny AT and Adeg.

The scores of Penny DE and Rewe are very close together which earned them ranks 5 (which Penny DE shares with Aldi Nord) and 6. Billa ranked 11 in the **Average** category, just missing category **Good** by 1 percentage point. Penny AT (30%) and Adeg (29%) resulted in ranks 23 and 24 at the lower end of the **Average** spectrum.

Rewe and Penny DE achieved the same results regarding the indicators, except for Penny DE also ticking indicator 29 ('true cost' price tags), because it is already piloting 'true cost' price tags in its sustainability experience market in Berlin[53]. Also, the own-branded range Food for Future and the Klimaleicht campaign need to be mentioned as outstanding efforts by Penny DE.

Regarding a binding animal protein reduction strategy (9), Rewe as well as Penny mentioned their strategy to increase plant-based products – just like Lidl DE and CH as well as Aldi DE – which we did not consider because it does not boil down to the same as a concrete reduction strategy for meat and other animal protein. The Austrian targeted supermarkets gave no information for indicator 9 which applies for a wider part of section 1 on CSR and policies.

With respect to the product portfolio, Billa and Adeg are leading the way in regard to hybrid products (15), which are still not on the shelves of Rewe, Penny DE and AT. The percentage of specific products with animal welfare labels (14) could only be named by Penny DE and Rewe.

No big differences were to be found regarding marketing, except for Adeg not highlighting the positive effects of reducing animal-based protein (19) and Penny AT not taking part in any initiative promoting meat reduction. As a side note, not

Supermarket	REWE	Penny	Billa	Penny	Adeg
Country	DE	DE	AT	AT	AT
Marketing					
17. Marketing strategy to increase sales of plant-based foods	✓	✓	✓	✓	✓
18. Highlight plant-based foods' positive effects (on animals, climate, health, planet)	✓	✓	✓	✓	✓
19. Highlight the positive effects of reducing animal-based protein (on animals, climate, health, planet)	✓	✓	✓	✓	✗
20. Initiatives/programs promoting meat reduction	✓	✓	✓	✗	✓
Progress & Commitment					
21. Future targets to increase plant-based foods	✓	✓	?	?	?
22. Future targets to reduce animal protein	✗	✗	?	?	?
23. Plan to ban cheap meat advertising	✗	✗	?	?	?
24. Plan to increase products with high animal welfare labels	✓	✓	?	?	?
25. Plan to offer cultivated meat (once available)	✗	✗	?	?	?
26. Plan to implement stronger climate policy (scope 3)	✓	✓	?	?	?
27. Plan to limit conventionally produced animal protein	✓	✓	✓	?	?
28. Would consider increasing the price of animal-based products	✗	✗	✗	?	?
29. Would consider true cost price tags	✗	✓	✓	?	?
30. Aim at price parity for plant-based and animal-derived products	✗	✗	✗	?	?
Additional					
i. Transparency of accessible information	✓	✓	✓	✓	✓
ii. Responded/Cooperative and provided additional information	✓	✓	✓	✗	✗

✓ = Yes ✗ = No ? = No (clear) information given / could be publicly found within the allocated research time

being part of the indicator overview, Rewe and Penny DE were the only two supermarkets that strongly advertised plant-based meat substitutes for barbecue season.

There was no information under Progress & Commitment for Penny AT and Adeg, as the questionnaire was not filled in by them. As mentioned above, Penny DE and Rewe draw even; except for indicator 29, which Billa was also one out of only three supermarkets to consider 'true cost' price tags.

RANKING

5	Penny DE	63%
6	Rewe	61%
11	Billa	50%
23	Penny AT	30%
24	Adeg	29%

Very good: 76-100% **Good**: 51-75%
Average: 26-50% **Low**: 0-25%

4.6 Addendum

This chapter provides information that was given by specific supermarkets after the Atlas Challenge was published, which was not accounted for in their initial final scoring, but relevant to mention. In addition, FOUR PAWS came across information which the supermarkets did not pass on to us and was not found during the allocated research time frame but is worth pointing out due to the positive nature it entails.

Aldi Suisse let FOUR PAWS know they noticed that they had accidentally missed out on answering two questions that would have altered their results:

- **Indicator 6: climate footprint for animal-derived products**
  A sustainability assessment exists for products of their brand Retours Aux Sources, which also includes the climate impact[67].

- **Indicator 15: Hybrid/blended products**
  Aldi Suisse informed us that two hybrid test articles will be introduced in 2022. As there was no information found during the research time frame of when this will be or already was tested, it is unclear whether the offer of hybrid products fell into our research time frame and would have influenced the final score.

Volg CH provided the following information after the ranking results were published that could have led to a different rank and score:

- **Indicator 10: Policy on reduction of specific animal-derived products**
  'The reduction of imports is firmly anchored in our strategy. In addition, we do not stock any exotic or comparable species. Imports from South America, for example, are therefore rare and will be further reduced.'
  This information was not given initially; concrete reference/s were not provided.

- **Indicator 23: Plan to ban cheap meat advertising**
  Volg claims that cheap meat is neither advertised nor campaigned and thus this point already put into practice. Unfortunately, this info was not provided when the questionnaire was filled in.

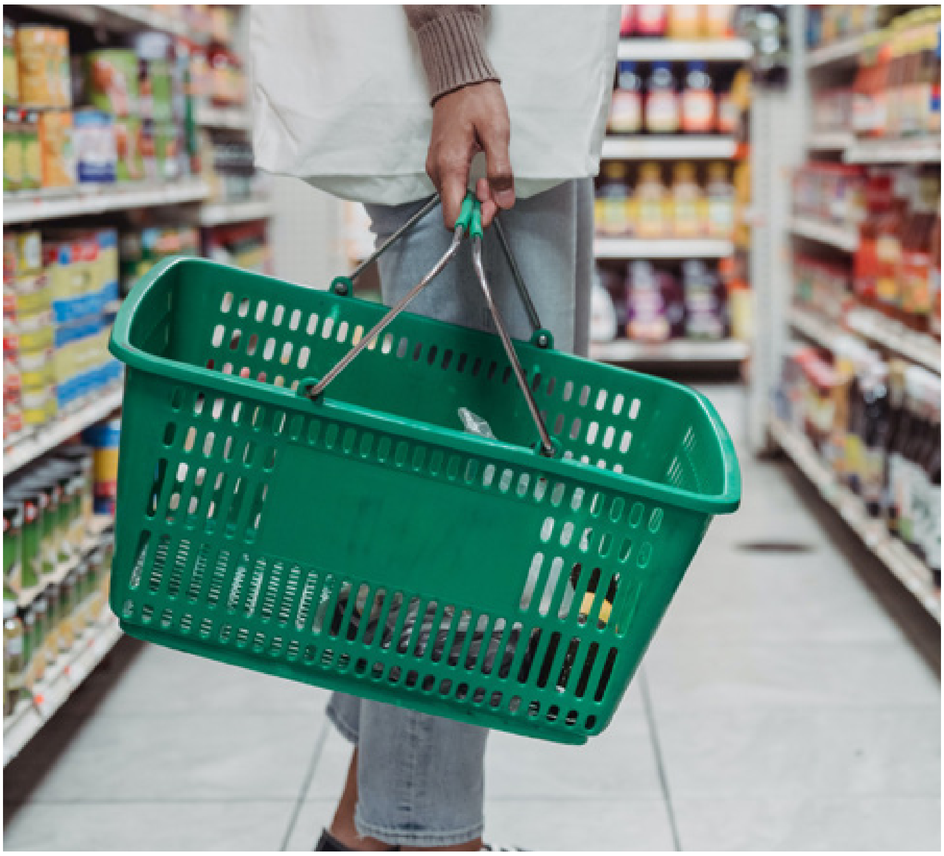
- **Indicator 28: Would consider increasing the price of animal-based products**
  'We already have higher prices for animal products than the competition. So this criterion can be considered implemented.'
  Again, this information was not provided by the deadline communicated during the Atlas Challenge analysis.

In July 2022, after the launch of the ranking, Migros teamed up with SuperMeat to speed up production and distribution of cultivated chicken at a commercial scale[69].

Back in 2021, **Migros CH** entered a cooperation with Aqua Cultured Foods to test consumer acceptance of whole muscle cuts of cultivated seafood like tuna or whitefish alternatives[68]. As Migros did not fill in the questionnaire and this information was not found on their website (but via an online article publication) they were given a question mark for no clear information during the time of the analysis. Had FOUR PAWS known about this positive initiative during the assessment timeframe, Migros would have received the corresponding points and a tick for indicator 25 Plan to offer cultivated meat (once available).

After the launch of the Atlas Challenge ranking, **Lidl DACH** informed FOUR PAWS that they are currently developing a protein strategy to create reliable transparency about the share of animal protein compared to plant-based protein sources.

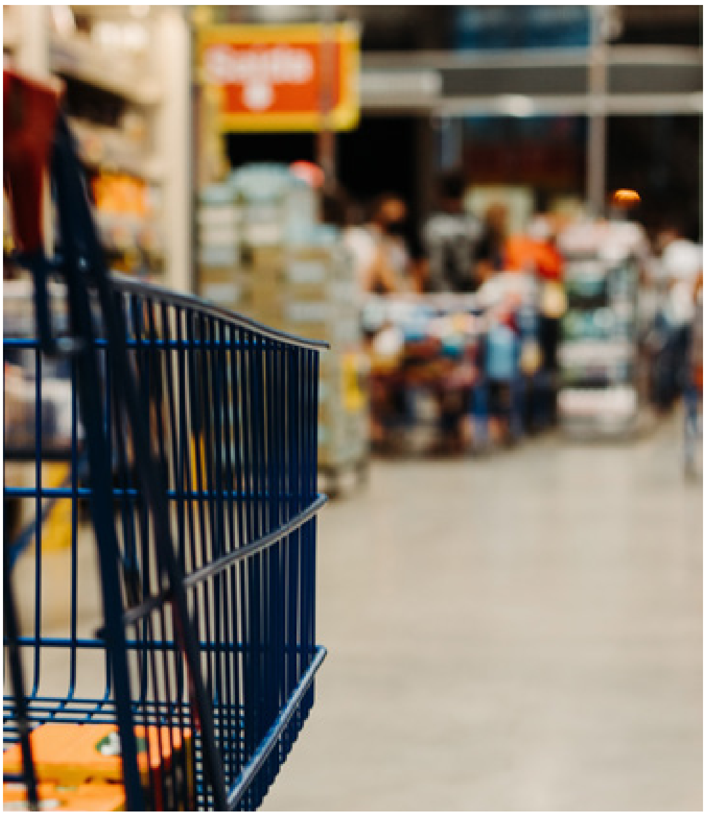
Aldi Nord and **Süd DE** retreated to their efforts regarding the transformation of keeping systems (Haltungswechsel) and the expansion of their plant-based portfolio and stated they want to leave the decision of meat reduction with the customer.



4.7 Conclusion

Whilst most of the assessed supermarkets have a policy on the increase of plant-based foods, only 50% have a concrete quantitative future target in place. Despite many of the targeted supermarkets acknowledging the crucial role of how animal protein – particularly meat – contributes towards climate change, no supermarket has taken responsibility yet and drawn the conclusion that the pro-active reduction of animal protein, particularly meat, is key – not only to reduce the number of farm animals suffering in intensive keeping systems, but also to slow down global warming. Highlighting the link between animal welfare, meat reduction and the climate crisis is not prioritised.

While a wider choice of plant-based foods and meat/fish or other animal protein alternatives might support a protein shift, it does not equal the pro-active reduction of meat and other animal protein that FOUR PAWS would like to see the supermarket take responsibility for as it is not sustainable to put the pressure for change on consumers or farmers alone. Only by drastically reducing the production and offering of animal-based proteins can the number of farm animals suffering in intensive keeping systems be reduced and the way to high animal welfare keeping systems be paved in addition to mitigating climate change. Currently, a lot of the supermarkets emphasise their efforts to improve animal welfare by raising the standards of keeping systems significantly and phasing out products from the worst systems. This can only be done if the number of farm animals is reduced, which will inevitably have to come with a binding animal-based product reduction.



The food retailers are enabling a significant overconsumption of meat and are powerful influencers contributing to the over-production of animal-derived products. Hence, clear binding reduction strategies are key.

It is not only the products that are sold, but where they are sourced, how they are branded, labelled, marketed, and placed, that also play a part.

General findings:

- Food retailers are resting on the expansion of their plant-based portfolio and meat alternatives, which does not automatically mean that products from intensive livestock farming are actively outsourced.

- A clear labelling (e.g. V-label) for plant-based products exists which supports consumers' buying choices.

- Product placement and marketing tactics are key in influencing consumers' on where and how to locate specific products. Some of the assessed supermarkets are in fact aware of this and place plant-based products amongst conventional meat and dairy aisles to encourage mainstream purchase for consumers – particularly flexitarians and meat eaters – to try alternatives instead.

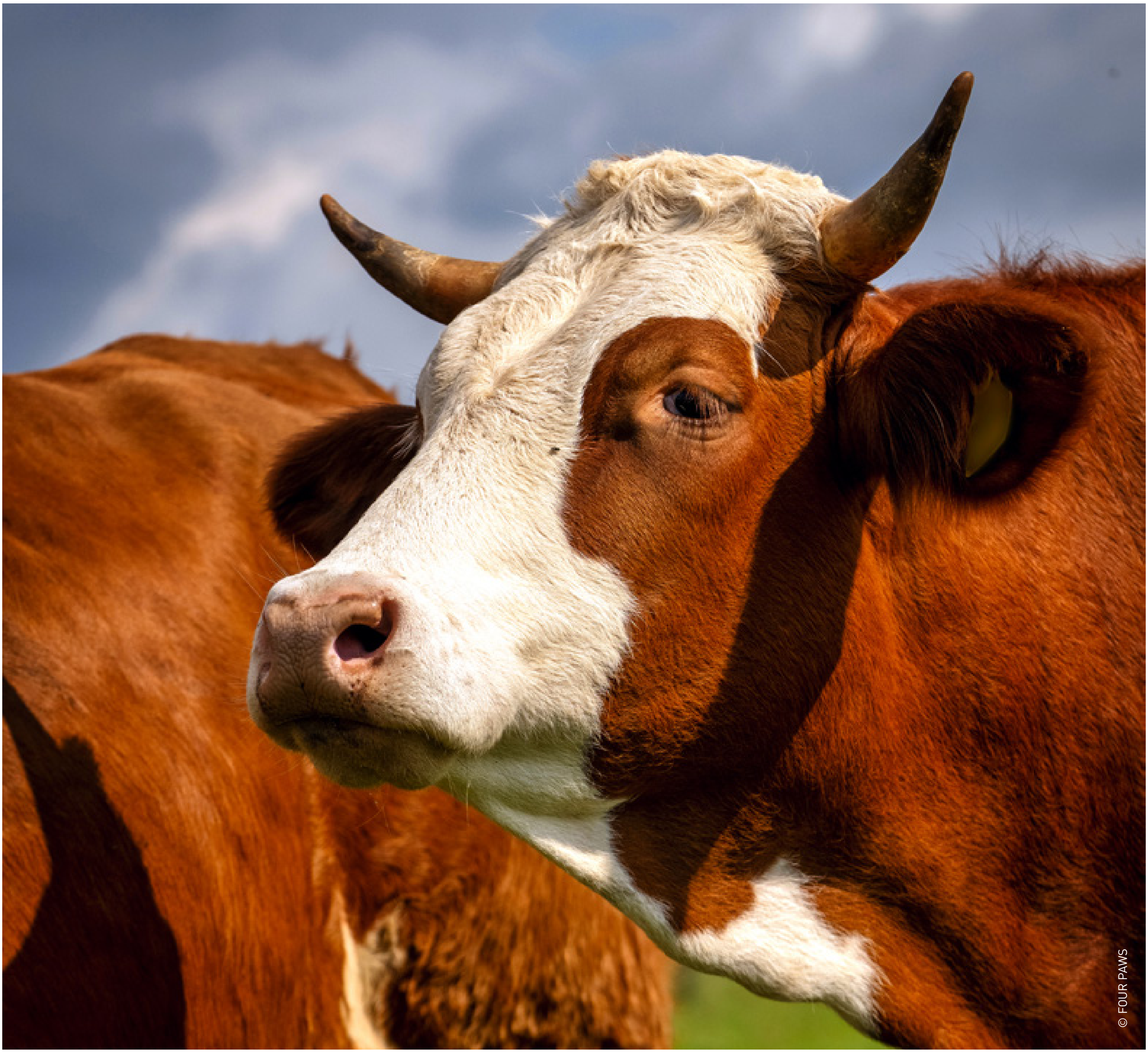
- Many have turned away from products which are connected to soya animal feed sourced from areas which are linked to forest destruction or meat from South America, which has a negative impact on the climate.

To nudge plant-based products into mainstream acceptance, the placement of plant-based products is key. New data from consumer research platform Attest discovered that out of all the key supermarket sections, the vegan aisle was the one consumers were most likely never to visit[70].

- Instead of avoiding GHG emissions in the first place, e.g. by reducing animal protein, a lot of effort is put into measures like optimising animal feed that reduces methane emissions or emissions are compensated/offset.

- The supermarkets argue that development of the product range is strongly linked to consumers' purchasing decisions and trends, which is often used as an argument for not implementing or transitioning their product portfolio. However, supermarkets have the choice to strategically determine their path and set clear signals.

- No supermarket assessed as part of the Atlas Challenge has yet committed to a binding meat reduction approach nor signed the FOUR PAWS commitment letter.



5. What's next?

FOUR PAWS is hopeful that with the already existing positive initiatives in place by some of the assessed supermarkets, more will start highlighting the link between factory farming, animal welfare and the climate and implement binding meat reduction goals for a better planet.

A new report commissioned by No Meat May predicts that half of the UK population will stop consuming animal-based meat by 2040[71].

FOUR PAWS is looking forward to a positive exchange with the supermarkets who are willing to support the integration of more sustainable food strategies to reduce the amount of meat and other animal-based proteins and increase innovative plant-based products by signing the Atlas Challenge commitment letter.

Contact details:

For further information about the Atlas Challenge or if you wish to be one of the pioneers in the food industry by committing to meat reduction goals and increasing innovative plant-based offerings, please get in touch at: TheAtlasChallenge@four-paws.org

6. Glossary

Cultivated meat: meat produced by in vitro cell culture of animal cells instead of from slaughtered animals

Factory farming/industrial farming: Factory farming is an industrial method of raising farm animals. On factory farms, animals are raised under conditions intended to maximise production at minimal cost. The animals in these systems regularly suffer from most cruel practices and their basic needs are not met. On factory farms, animals are confined in small spaces and the animals are kept indoors and/or in cages for their entire life.

Hybrid product/blended product: meat products which are partly mixed with, for example, vegetables and/or grains to reduce the overall meat content in the product itself (e.g. a 60/40 chicken burger contains 60% chicken and 40% grain)

Innovative products (in the context of the Atlas Challenge): progressive animal-free products which are produced through advanced technology and/or use of uncommon ingredients (e.g. fungi-based burgers, 3D-printing, 'bleeding' burger patties, hemp, etc.)

Meat: all types of animal meat (fresh/frozen/processed) such as beef, pork, veal, poultry, lamb; including meat from marine animals such as fish and shellfish

Plant-based/vegan: free from all animal-derived products/ingredients (none of the following: meat, fish, eggs, dairy, honey)

Plant-based meat substitutes: a manufactured food item which aims to be similar to meat regarding texture, flavour, appearance, and nutritional value and does not contain animal-derived ingredients

Scope 1, 2 and 3 emissions: A company's GHG emissions are classified into three 'scopes':

- Scope 1 emissions are direct GHG emissions occurring from sources owned or controlled by the company, e.g. emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc. or from chemical production in owned or controlled process equipment;

- Scope 2 emissions are indirect emissions from the generation of purchased electricity consumed by the company;

- Scope 3 emissions are all other indirect GHG emissions as a consequence of the activities of the company, but occur from sources not owned by the company, e.g. by extraction and production of purchased materials, transportation of purchased fuels and the use of sold products and services. Scope 3 is an optional reporting category[35].

Vegetarian: meat- and fish-free

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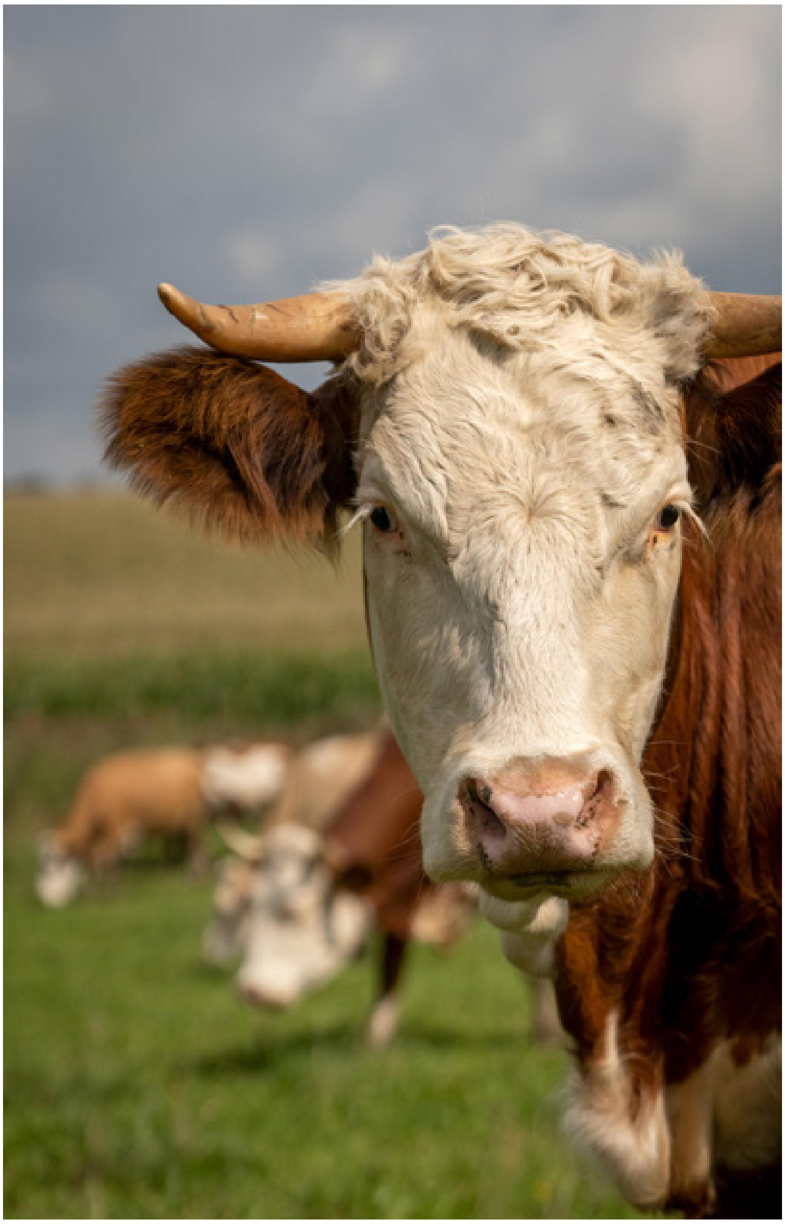
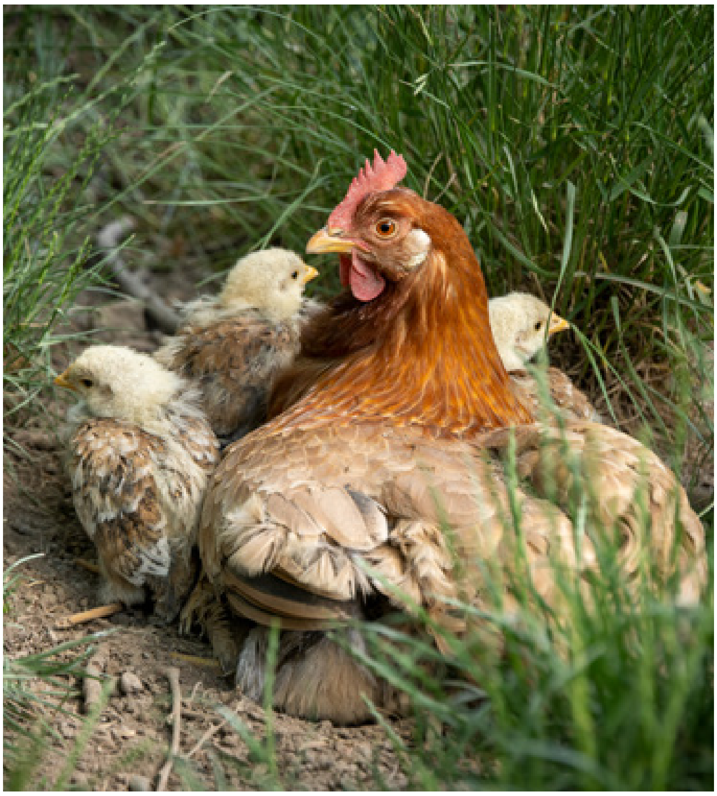
About FOUR PAWS

FOUR PAWS is the global animal welfare organisation for animals under direct human influence, which reveals suffering, rescues animals in need and protects them. Founded in 1988 in Vienna by Heli Dungler and friends, the organisation advocates for a world where humans treat animals with respect, empathy and understanding. The sustainable campaigns and projects of FOUR PAWS focus on companion animals including stray dogs and cats, farm animals and wild animals – such as bears, big cats and orangutans – kept in inappropriate conditions as well as in disaster and conflict zones. With offices in Australia, Austria, Belgium, Bulgaria, Germany, Kosovo, the Netherlands, Switzerland, South Africa, Thailand, Ukraine, the UK, the USA and Vietnam as well as sanctuaries for rescued animals in eleven countries, FOUR PAWS provides rapid help and long-term solutions.

The work of FOUR PAWS is based on substantiated research and scientific expertise, as well as intensive national and international lobbying. The goal of FOUR PAWS' campaigns, projects and educational work is to inform the general public about animal suffering and to bring about long-term improvements enshrined in legislation.





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Layout: Dino Kunkel | Grafik-Anstalt. 10/2022. Cover photo: Superstar | shutterstock