SUPERLIST ENVIRONMENT GERMANY 2025

Research methodology

Superlist Environment Germany 2025 Research Methodology

23 September 2024

Version 1.0

Authors: Deborah Winkel, Gustaaf Haan, Willem van Engen - Cocquyt, Dore de Jong

Table of Contents

Project Superlist

Supermarkets have a major influence on what their customers buy. This gives them the opportunity to make food habits healthier and more sustainable. With Superlist, Questionmark Foundation helps supermarkets seize this opportunity. Superlist is an ongoing research programme that provides insight into what supermarkets are doing to encourage healthy diets and make the food system more sustainable. Superlist also shows which supermarkets are leading the way and which are lagging behind, and what they can do to improve their position. As part of this research programme, reports have been published in the Netherlands, Belgium, Sweden and the United Kingdom. The current project, Superlist Germany Environment, assesses the extent to which German supermarkets make the food system more sustainable.

Governance
Questionmark is an independent think tank that is committed to providing facts, figures and arguments to further the public debate on healthy and sustainable food. Questionmark is governed by an independent board whose members have no stake in the food industry. Questionmark does not receive any funding that is related to the German retail or food industry, whether directly or indirectly. The integrity policy of Questionmark can be found on www.thequestionmark.org

Financial support

This project would not have been possible without the generous contributions of the Tanka Foundation and Healthy Food Healthy Planet.

Experts

For this research methodology, the following experts have been consulted

- FiBL, Research Institute of Organic Agriculture
- Green Protein Alliance
- Individual supermarkets
- Mighty Earth
- Milieu Centraal
- Stichting Natuur & Milieu
- WNF the Netherlands / WWF international / WNF Germany
- Quantis, Environmental Sustainability Consultancy

Scientific council

- dr. ir. Ellen van Kleef - Consumer Behaviour - Wageningen University
- dr. Annet Roodenburg - Lecturer in Healthy Nutrition - HAS Hogeschool
- prof. dr. ir. Jaap Seidell - Food and Health - VU Amsterdam

Civil Society Partners

Superlist Germany Environment 2025 is a project of Questionmark Foundation, with consultation of the following organisations, which all shared their knowledge and expertise in developing this research methodology and designing the study.

- Albert Schweitzer Foundation
- Deutsche Umwelthilfe
- Madre Brava
- Physicians Association for Nutrition Germany
- ProVeg Germany

Introduction

This document describes the methodology behind Superlist Environment, which is part of the overarching research project Superlist Germany. The methodology was designed to help supermarkets monitor their contribution to a more sustainable food system and compare themselves with other players in the market.

The methodology describes the following three levels:

- The **issues** or problems in the food system that require solutions to which supermarkets can make a substantial contribution.
- The possible **interventions** or measures supermarkets can take to address these issues.
- The **indicators** that make the interventions measurable. Each indicator has a weighting that expresses the indicator's relative importance for the theme as a whole.

The general method used to assess and compare supermarkets is described in Superlist Research Framework (Questionmark, 2023), a document that explains topics such as how we collect data, how we display the results, and how we involve various stakeholders in drawing up the research methodology. This Research Framework can be found at www.superlijst.org

Supermarkets

This research focuses on the five largest supermarket chains in Germany in terms of market share: Rewe, Kaufland, Edeka, Aldi (both Aldi Nord and Aldi Sud) and Lidl. Together, they have a total market share of more than 80% (Mihr, 2024).

If supermarkets have a complete webshop, we analyse supermarkets' online assortment. For supermarkets that don't have a webshop, we visit a large store to manually collect product information.

Regional differences

Germany comprises different federal states. Supermarkets' assortments may differ between and within these states. The importance of taking these regional differences into account for supermarkets without a webshop is recognised. That is why supermarkets are invited to provide information on whether there are differences between regions and, if there are substantial differences, to specify in which regions/locations they take most steps to promote sustainable products. For each region locations of the largest supermarkets are requested. When a supermarket without a webshop does not provide information on regional differences, one or several large branche(s) in one region will be selected to conduct the product data collection.

In the general ranking, the assortment of the online branch is always analysed or, when there is no (complete) online branch, the most representative offline branch (as explained above). While the report may discuss regional differences if there are major differences between supermarkets' efforts, this will not be included in the scoring.

Research period

Data on assortment, policy and promotions will be collected during a period of two months, from September 23rd to the final reference date of November 17th. Supermarkets that make any changes to their assortment may communicate this to Questionmark up to the final reference date.

Other initiatives

In Germany, several other initiatives compare retailers on topics that overlap with those in Superlist Environment. Throughout the development of our methodology, key stakeholders and relevant experts are engaged to ensure that Superlist's research adds value and complements existing initiatives.

Issues and interventions

The ambition of Superlist Environment is to contribute to a systemic transition of our food system. Superlist encourages supermarkets to use their leverage in the food system to provide more sustainably produced food and to promote a diet that does not exceed the planetary boundaries. The most important levers retailers can apply in the short term to contribute to a systemic transition have been identified.

This chapter gives an overview of the issues the German Superlist Environment focuses on. The issues were selected using the 'Framework for comparison criteria' that is included in the Superlist Research Framework (Questionmark, 2023). They should be approached as a single system: together, these issues address the most important and systemic problems in our food system, which supermarkets could play a major role in solving.

Relationship with health
A more sustainable diet is often also a healthier diet, but not always. Although this research focuses on the influence of the food system on the environment and nature, the interventions proposed ensure that they do not contradict other demands in the areas of health, human rights and animal welfare.

Transparency as an intersecting topic
Transparency is the first step towards improvement. Clear goals can only be formulated when there is knowledge about current practices. For this reason, transparency in itself is rewarded in some indicators of this first version of Superlist Environment, regardless of the quality of the underlying practices. Because transparency about practices helps policymakers and society get a better idea of the efforts that are being taken, which in turn tells us what else needs to be done to facilitate the transition to a sustainable food system.

Not included: price
Food prices can play a key part in accelerating the transition to a sustainable food system. On one end of the value chain, the environmental efforts of farmers and other suppliers should be valued and reflected in the prices they receive if everyone is expected to make a fair contribution. On the other end of the value chain, low prices for non-sustainably produced food (such as animal-based products) risk making these products more popular.
As an indicator of sustainability, however, shop prices rarely tell the whole story.
First of all, prices are a key way in which supermarkets compete with each other. Supermarkets may choose to lower their margin on certain products to attract more customers, while increasing their margin on other products. So a product’s shop price is no indicator of the price the supermarket has paid its suppliers, and of the sustainability of a product. This research focuses on promotions instead, because evidence shows that

promotions, regardless of their type or the reduction in price, increase consumption, not only of the promoted product but also of the product category as a whole (PHE, 2020).

Not included: packaging, food waste
There are more problems in the food system than this methodology can cover. Although packaging was part of an earlier Superlist Environment in the Netherlands and food waste part of Superlist Environment in Belgium, these topics are not included in the German Superlist Environment. While it remains important to avoid excessive and unsustainable packaging (Fevia, 2022), and reduce food waste at retailer level, the topic has a lower priority for the German Superlist Environment than the issues below.

Construction of methodology
For each issue, a number of possible supermarket interventions are listed. Indicators are then formulated to assess these interventions at the supermarket level. Every indicator is just one piece of a larger puzzle. As a whole, however, they provide a useful picture of a supermarket's commitment to an issue (bearing in mind that every methodology and indicator has its limitations). All interventions and indicators associated with an issue are numbered to make it easy to identify related parts of the method. The next chapter provides an overview of all issues, interventions and indicators.

Protein transition (EN-1)

The production of animal products has a relatively large environmental footprint. Farmland is used to produce animal feed, at the expense of agricultural land for human food or at the expense of vulnerable nature and (tropical primaeval) forests. The high methane emissions from cattle are also a critical contributor to climate change. Although the consumption of meat in Germany has decreased over the past years, Germans still consume twice as much as the amount recommended by EAT LANCET (Willett et al., 2019; Statistica.com, 2024). Animal proteins currently make up about 66% of protein in the average German diet (Our World in Data, 2021).

With the ‘protein transition’ we refer to a shift in consumers’ food patterns towards more sustainably produced animal protein sources and/or plant-based protein sources. Superlist includes possible interventions for supermarkets to speed up this protein transition. Rather than calling plant-based protein sources ‘good’ and animal-based protein sources ‘bad’, we focus on a shift in proportion. The aim is not to completely substitute all animal-based protein sources for plant-based ones, since the average German diet already contains more protein than is reasonable within planetary boundaries (EU, 2021a; Willett et al., 2019). The protein transition should be seen as part of a larger transition towards a more balanced diet. From a consumer’s perspective, however, substitution could be a first step to take. That is why we value all supermarket interventions that make it easier for consumers to make this shift.

Existing agreements and objectives in Germany

- *Ernährungsstrategie der Bundesregierung (Nutrition strategy by the Federal government) (BMEL, 2024a)*

This is a strategic paper on the German nutritional strategy published in January 2024. The nutrition strategy sets out nutrition policy goals and guidelines, defines areas of action and brings together around 90 planned and existing nutrition policy measures.

- *Eiweisspflanzenstrategie (Plantprotein strategy) by BMEL (The Federal Ministry of Food and Agriculture)* (BMEL, 2012)
  The strategy is intended to support an expansion in the cultivation and utilisation of legumes/pulses – both supply and demand.
- Ernährungkreis (nutrition cycle) by DGE *(Deutsche Gesellschaft für Ernährung)* (DGE, 2024)
  The DGE nutrition cycle has been updated in April 2024, and is regarding meat consumption in line with the maximum meat consumption of the Planetary Health Diet.

Interventions

EN-1.1 The supermarket sets goals to increase the share in sales of plant-based proteins.
EN-1.2 The supermarket tempts customers towards food routines in which plant-based proteins play a major role.

Sustainable agriculture (EN-2)

Today's agricultural methods can have negative consequences on valuable nature, climate and the environment around the world. Excessive use of fertilisers and pesticides causes disruption of natural cycles and loss of biodiversity. In Germany too, this disrupts natural cycles, impoverishes the landscape and makes animal and plant species go extinct. Cultivation in (heated) greenhouses and transporting food by air increases greenhouse gas emissions. Clearing forests for new farmland in natural areas accelerates climate change and loss of biodiversity.

It would be impossible to look at all aspects of sustainable agriculture in this one report. To determine which aspects to look into, we considered the extent to which each aspect violated planetary boundaries. Two topics were revealed to be more pressing than others:

1) Loss of biodiversity.
2) Use of inputs that cause a major disturbance in the biogeochemical cycles of mainly nitrogen (N) and phosphorus (P).

A third aspect of nature-inclusive agriculture that we consider important is:

3) Livestock farming in harmony with the environment. By also including this sub-topic, we emphasise the need for a drastic shift in livestock farming, with smaller livestock populations and animals being part of a circular model.

Existing agreements and objectives in Germany

- *European Green Deal* with the *EU Biodiversity Strategy 2030* and *Farm to Fork Strategy* (EC, 2020; EU, 2020).
  These strategies set several targets for 2030, including (a) turning at least 30% of EU land and 30% of EU seas into effectively managed and coherently protected areas; (b) restoring degraded ecosystems and stopping any further damage to nature; (c) reducing the use and risk of pesticides by at least 50%; (d) managing

25% of agricultural land through organic farming and promoting the update of agro-ecological practices; and (e) establishing biodiversity-rich landscape features on at least 10% of farmland.

- *EU Code of Conduct on Responsible Food Business and Marketing Practices (EU, 2021b).*
  This Code (which mirrors one of the first deliverables of the Farm to Fork Strategy) sets out seven objectives, including actions that actors (including retailers) can voluntarily commit to, to improve and communicate their sustainability performance. The Code includes targets such as a food environment that makes it easier to choose healthy and sustainable diets. It defines actions like (a) promoting more sustainably-produced food products (e.g. organic food, sustainable fish) and increasing consumers' awareness of healthy, balanced and sustainable diets; (b) reviewing and/or offering a range of appropriate portion and serving sizes aimed at sustainable food consumption; (c) voluntarily providing consumers with transparent product information; (d) and identifying and contributing to appropriate solutions and strategies to prevent deforestation and to promote conversion-free food supply chains.
- *Organic Strategy 2030 by BMEL (The Federal Ministry of Food and Agriculture)* (BMEL, 2023).
  BMEL's Organic Strategy 2023 was presented at the end of 2023. The Organic Strategy 2030 aims to create the appropriate framework conditions and eliminate existing hurdles along the entire value chain - from the provision of inputs through production and processing to trade and consumption - so that by 2030, 30 percent of agricultural Areas in Germany can be farmed organically.

Interventions

EN-2.1 The supermarket provides insight into the most important sustainability aspects of supply chains.
EN-2.2 The supermarket offers products from sustainable agriculture.
EN-2.3 The supermarket takes action against deforestation and land use changes worldwide.

Climate plan (EN-3)

Industries and companies, including supermarkets, are contributing to greenhouse gas emissions to a great extent. Greenhouse gas emissions contribute to global warming. These emissions occur in scope 1, 2 and 3. Scope 1 includes a company's direct emissions (e.g., refrigerants) and scope 2 the indirect emissions from generating purchased energy (e.g., electricity consumption, generation of electricity not belonging to the supermarket itself). Scope 3 includes the indirect emissions of CO_2 that occur in the company's value chain from both upstream (e.g., transportation of raw materials) and downstream (e.g., food waste) sources.

Existing agreements and targets

- *The Paris Climate Agreement*: the average global temperature increase must remain below 2°C, with the aim of further limiting warming to 1.5°C (UN, 2015).
- *European Climate law: Climate target net-zero (2050 target):* in 2050, greenhouse gas emissions will not exceed what is set. Net emissions are zero (European Parliament, Council of the European Union, 2021)**.**

Interventions

EN-3.1 The supermarket has a climate plan in line with the Paris Climate agreement.

Overview of interventions and indicators

Protein transition (EN-1)

Interventions	Indicators	Weight
The supermarket sets goals to increase the share in sales of plant-based proteins. (EN-1.1)	To what extent does the supermarket have a target for increasing the share of plant-based food in the total volume of food sold? (EN-1.1.1)	1,5
The supermarket tempts customers into food routines in which plant-based proteins play a major role. (EN-1.2)	What proportion of protein-rich promotions consists of plant-based protein sources? (EN-1.2.1)	0,5
	Do the portion sizes of ready-to-eat meat products help to reduce meat consumption? (EN-1.2.2)	0,5
	What policies does the supermarket have for shifting food routines towards a more plant-based diet? (EN-1.2.3)	0,5

Sustainable agriculture (EN-2)

Interventions	Indicators	Weight
The supermarket provides insight into the most important sustainability aspects of supply chains. (EN-2.1)	To what extent does the supermarket report on the origin, transport and cultivation method of the products it sells? (EN-2.1.1)	1
The supermarket offers sustainable agriculture products. (EN-2.2)	To what extent does the supermarket's assortment meet relevant sustainable agriculture standards? (EN-2.2.1)	1
The supermarket takes action against deforestation and land use changes worldwide. (EN-2.3)	To what extent does the supermarket take action to stop deforestation and land conversion linked to the use of soy in animal feed? (EN-2.3.1)	0,5
	To what extent does the supermarket take action to stop deforestation linked to the use of palm oil in its products? (EN-2.3.2)	0,5

Climate plan (EN-3)

interventions	Indicators	Weight
The supermarket has a climate plan in line with the Paris Climate Agreement (EN-3.1)	To what extent does the supermarket have a climate plan in line with the Paris Climate Agreement? (EN-3.1.1)	1,5

Indicators

Protein transition (EN-1)

Target plant-based food ratio (EN-1.1)

Indicator EN-1.1.1	*policy*
To what extent does the supermarket have a target for increasing the share of plant-based food in the total volume of food sold?	

Explanation
Animal proteins currently make up about 66% of protein in the average German diet (Our World in Data, 2021). Shifting to a more plant-based diet is essential for decreasing the footprint of the food system, as also acknowledged by the Green Deal.
The ideal ratio within the boundaries of planetary and human health - as proposed by EAT Lancet - is 40% animal-based protein, and 60% plant-based protein (EAT, 2019). According to the Deutsche Gesellschaft für Ernährung (the German Nutrition Society), a “healthy and environmentally friendly diet” is at least 75 percent plant-based (DGE, 2024).

For this indicator, we investigate whether a supermarket is reporting on the percentage of plant-based versus animal food in their total sales volume[1], and whether the supermarket has set itself a target for increasing the share of plant-based food in its sales volume. With such a target, the supermarket shows that it endorses a more plant-based diet at all levels of its operations.

Measurement and weighting
We investigate whether a supermarket reports on the share of plant-based versus animal-based food, and whether it has a target to increase the share of plant-based food in the total volume of food products. We recognize three levels of commitment: Awareness; First Insight; Complete Insight. Bonus points can be obtained by setting a target to increase the share of plant-based.

1. Awareness
The supermarket is aware of its own role in the protein transition and actively expresses responsibility to accelerate this transition.
The supermarket receives 5 points for expressing this responsibility.

[1] For a definition of sales volume, see appendix 1

2. First insight
The supermarket provides insight into the ratio of animal/plant-based food of only part of the volumes. The ratio may be calculated at product or ingredient level, or be limited to protein content of products for a part of the total food volume.

A supermarket may make assumptions on the type and quantity of plant-based ingredients or proteins in a product, on the condition that they explain clearly which assumptions have been made. At this level, figures may still be reported in any format, as long as the format and the terms it uses are relevant to the subject and clearly explained. The supermarket receives a maximum of 30 points multiplied by the % of the total sales volume the supermarket reports on.
Supermarkets' reports must relate to a period that ended no more than 24 months ago. They must also report about the time period over which the calculation was performed.

3. Complete insight
The supermarket provides insight into the ratio of animal versus plant-based food in the total volume of food. The ratio may be calculated at product or ingredient level, or be limited to protein content of products. The result should be expressed as one aggregated metric, to ensure comparability between supermarkets. This methodology has to be developed by an independent party. For more information about current methodologies that are accepted, see the text box below. If a supermarket reports this (one) ratio, this will result in 60 points on this indicator.
Supermarkets' reports must relate to a period that ended no more than 24 months ago.

BONUS - SMART target
The ideal protein split for Germany would be 60/40 plant-based/animal-based protein, in line with the Planetary Health Diet (PDH) (EAT, 2019). Each supermarket can set itself a target in line with this ideal split. A supermarket with such a target receives 20 points on this indicator, on top of points for reporting, provided that:

- *the target is in line with PHD, and*
- *the target is SMART formulated (Specific, Measurable, Agreed upon, Relevant, and Time-Bound), and*
- *the supermarket makes clear which methodology it will use to measure the protein split (see text box about methodologies), and*
- *the deadline is not later than 2030.*

If the deadline is later than 2030, the supermarket can still obtain 5 points on top of points for reporting, provided that:

- *the supermarket explicitly commits itself to an intermediate target in 2030 which is linearly interpolated from the eventual target of 60/40, and*
- *all other conditions above are met.*

Measuring the protein split

When reporting on the protein split it is important that supermarkets report *one metric* that shows the percentage of plant-based (protein) of the total sales volume.
At the moment there is no industry standard for measuring. However, there are two different published methodologies that supermarkets can use to measure this ratio, namely the WWF Protein disclosure and the GPA/Proveg Protein tracker (WWF UK, 2022; Green Protein Alliance and Proveg Netherlands, 2023). For compatibility between supermarkets we advise supermarkets to agree on one methodology to be used, because using different methods will result in incomparability.

Level	Points	Examples	
1. Awareness			
Supermarket recognises its own role in protein transition and provides policy examples to support the transition.	5	**Insufficient**	*"Germans' food patterns have to change in order to make the protein transition possible."* (No mention of the role of the supermarket).
		Sufficient	"We support the protein transition and are actively increasing availability and promoting our plant based protein foods such as legumes, beans, pulses, nuts and seeds and developing our plant-based ranges to include more substitutes for meat and dairy."
2. First insight			
Supermarket reports sales figures relevant to protein transition. The supermarket does not report on the total sales, but on part of the sales*. Concerns a period concluded no more than 24 months ago. Terms are clearly explained.	30 * %	**Insufficient**	*"X percent of our sales were plant-based proteins."* (No explanation of the term 'plant-based proteins', unclear which period was measured, no figures for sales of animal proteins).
		Sufficient	*"X percent of our private label protein-rich food and dairy food sales in 2023 consisted of plant-based protein products. By 'plant-based proteins', we mean products with legumes, nuts and mushrooms as the only protein source. By 'animal', we mean all meat and fish and dairy, processed and unprocessed. The private label protein-rich foods and dairy food sales make up Y% of our total food sales. Definitions on scope, categories etc. are published here (LINK)"*
3. Complete insight			
Supermarket reports sales figures via a method making it possible to get insight into the percentage of sales that are	60	**Insufficient**	*Of all our private label product sales, 50% percent of our sales were plant-based proteins."* (No independently developed method used; not covering branded products).

	plant-based, from the *total sales*. This methodology has to be developed by an independent party. Concerns a period concluded no more than 24 months ago.		***Sufficient***	*"X percent of our total food sales in 2023 consisted of plant based proteins, calculated according to the GPA/Proveg Protein tracker."* *"X percent of our total food sales in 2023 consisted of plant based ingredients, calculated according to the WWF Protein Disclosure."*
BONUS: target				
	The supermarket has a SMART target in line with PHD, for 2030 (or later).	20 bonus points (or 5) on top of points for reporting	***Sufficient***	*"Our goal for 2030 is to have 60% of our total protein sales to consist of plant-based protein, and 40% from animal-based protein, using the Protein Tracker as a measuring method. Starting at x% of plant-based in 2023, we will increase the share of plant-based proteins in the total sales yearly with x%" (20 bonus points)* *"Our goal for 2040 is to have 60% of our total protein sales to consist of plant-based protein, and 40% from animal-based protein, using the Protein Tracker as a measuring method. We start at 40% of plant-based in 2023. Our intermediate target for 2030 is a share of plant-based proteins of 50%." (5 bonus points)*

Table 1. Scoring of EN-1.1.1 with examples per level. (*) At level 2, the number of points is multiplied by the percentage of total sales that a supermarket reports on. The minimum number of points received in level 2 is 10 points. Even if a supermarket only reports on a small percentage of their sales, this first transparency is rewarded.

The key figure for this indicator is the highest number of points a supermarket receives according to table 1.
At level 2, the number of points is multiplied by the known proportion(s) of plant-based vs animal-based ingredients or protein in the total sales. For example: Our private label sales is 60% of our total sales. Our total private label sales consists of 20% animal-based ingredients and 40% plant-based ingredients. This gives: 30 points × 60% = 18 points.

Weighting in the ranking
This key figure is not scaled but directly converted into the score on this indicator. The weighting of this indicator in determining the ranking of supermarkets is: 1,5.

Shifting routines toward plant-based proteins (EN-1.2)

Consumers do not always make conscious decisions about their food, as our food choices are often routine behaviour. But routines can evolve, including through the interaction between consumers and other parties that shape our food routines (PBL, 2020). When it comes to the consumption of plant-based and animal proteins, supermarkets can help steer shoppers' choices. The following indicators measure the extent to which supermarkets contribute to more plant-based food routines.

Indicator EN-1.2.1	*weekly promotions*
What proportion of protein-rich product promotions consists of plant-based protein sources?	

Explanation
Advertising meat not only directly encourages customers to buy meat, but also reinforces the image that meat should be part of a natural, normal daily meal. Consumption of meat however needs to be reduced for planetary and human health. In this indicator, we investigate whether a supermarket helps to change that image by including more plant-based proteins and fewer animal proteins in its weekly promotions. (For our definition of 'promotion', see Research framework (Questionmark, 2023).

Meat and other animal-based products do have a place in a healthy and environmentally responsible diet. But the environmental impact of the lowest-impact animal products usually exceeds that of plant-based products (Poore and Nemecek, 2018). A recent study published by Nature Food also shows that a more plant-based diet has a lower environmental footprint when lower amounts of animal-based foods are consumed (Scarborough et al., 2023).

Measurement and weighting
For each promotion flyer in the research period, we look at promotions of 'plant-based core' product-types and 'animal-based core' product types.

Protein products containing only plant-based proteins that contribute significantly to the shift towards future proteins are in the group '*plant-based core*' and those containing almost solely animal-sourced proteins are classified as '*animal core*'. See table 3 below. All other product types, thus plant-based non-core and composite products are not included in the measurement.

Plant-based core	**Animal core**
Beans & Pulses	Meat & poultry
Meat & fish substitutes	Processed meats
Plant-based cheese and dairy alternatives	Fish
Mushrooms	Dairy
Nuts	Eggs
Seeds	Cheese

Table 3. Protein sources and product-types that are included for indicator EN-1.2.1

A promotion including several different products is taken into account if at least one product is a protein source according to the above table 3..
We categorise product promotions based on the protein source. If a promotion applies to several protein products with different protein sources, each type of protein is interpreted

as a separate promotion. Example: a promotion for various snacks, including cheese cubes (animal core) and nuts (plant-based core), counts as two different promotions.

Protein source	Main ingredient	Examples	Points
Animal core	Meat, fish & shellfish	beef tartare, pork schnitzel, chickenfillet, shrimps, salmon,	0
	Dairy/cheese, eggs	eggs, aged cheese, milk, icecream, dairy desserts	
Plant-based core	No meat, fish, dairy/cheese or eggs	hazelnuts, nut butter, pulses, meat substitute without cheese, plant-based alternatives to dairy	1

Table 4. Points per promotion of EN-1.2.1. .

Each promotion gets the number of points described in table 4. If a product contains several protein sources, it is awarded the lowest number of points. For example: a plant-based schnitzel with pulses (1 point) and cheese (0 points), gets 0 points.
The average number of points for all protein promotions is calculated per promotion flyer. The key figure for this indicator is the average number of points of all promotion flyers of a supermarket during the research period.

Weighting in the ranking
To determine the score, this key figure is scaled with flexible limits; the upper limit is 0.75, the lower limit is 0.4. For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework. The weighting of this indicator in determining the ranking of supermarkets is: 0.5.

Indicator EN-1.2.2 *assortment*
Do the portion sizes of ready-to-eat meat products help to reduce meat consumption?

Explanation
Consumers view the portion sizes of meat offered in supermarkets and restaurants as an indication of the appropriate 'normal' consumption amount, since consumers eat *one* burger or *one* schnitzel, not 150 grams of burger or 100 grams of schnitzel (Be4Life, 2018). Portion sizes create a certain implicit standard (Steenhuis, Leeuwis, and Vermeer, 2010), with larger portions unconsciously perceived as the recommended consumption amount. This has led to an increase in the population's total food consumption (Cavanagh et al., 2014). A meta-analysis has actually shown that doubling the portion size leads to a 35% increase in consumption (Zlavetska, Dubelaar, and Holden, 2014).

One way to reduce animal protein intake is to encourage smaller portion sizes, especially for red processed meat. This intervention can help change what is seen as a 'normal' portion of meat, without requiring rigorous change of consumers.

Measurement and weighting
For this indicator, we examine the portion sizes[2] of different pre-packaged meat products in each supermarket:

- burgers (beef burgers, hamburgers, chicken burgers, etc.)
- breaded schnitzels
- cordon bleu

Portion description	Portion size	Points
small	≤ 80 grams	1
standard	> 80 grams and ≤ 100 grams	0.5
large[3]	> 100 grams and ≤ 150 grams	0.1
extra large	> 150 grams	0

Table 5. Scoring per product of EN-1.2.2

Each product receives the number of points described in table 5. The score of each product group is the sum of all points, divided by the number of products in the product group. The key figure for this indicator is the average score of all product groups.

Weighting in the ranking
To determine the score, this key figure is scaled with flexible limits; the upper limit is 0.6, the lower limit 0.4. For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework. The weighting of this indicator in determining the ranking of supermarkets is: 0.5.

Indicator EN-1.2.3	*policy*
What policies does the supermarket have for shifting food routines towards a more plant-based diet?	

Explanation
In recent years, some supermarkets have taken initiatives to encourage a plant-based diet or have experimented with related interventions. Some of these initiatives are having a positive effect. Even if an intervention turns out to have little effect, however, this insight may be valuable for policy makers or other supermarkets, provided that the insight is shared publicly. We use this indicator to compare the extent to which supermarkets contribute to this.

[2] Portion sizes >60 grams are included in the research. With this we exclude small (snack) products.
[3] The EAT-LANCET recommended diet contains a weekly intake of 98 grams of beef, lamb and pork (Willett et al., 2019). For this reason, the limit between standard and large is set at 100 grams.

Measurement and weighting
For this indicator, we look at interventions, both in physical stores and online, that encourage people to eat (more) plant-based rather than animal proteins. We focus hereby on in-store tactics. The measurement is done primarily by assessing publicly available documents (policies, annual reports, etc). Spot checks may be conducted if there is reason to doubt that a certain policy is actually implemented in practice.

Table 6 below lists the conditions a policy needs to meet to receive a minimum of 10 points. Table 7 lists a number of aspects of the policy that may result in extra points. In the two right-hand columns, we provide examples of what does or does not meet the conditions.

Set of minimum conditions	Basic points	Examples	
		Insufficient	Sufficient
The intervention is aimed at reducing the share of animal proteins in food routines. *This does not include:* *- reformulating products without changing food routines* *- promoting plant-based products in general, unless it is plausible that this will (also) reduce the amount of animal protein being produced.*	10	*"Our meal kits do not contain animal-based stock cubes. If a recipe requires stock, we add garden herb stock."* (Not aimed at changing food routines)	*"During barbecue season (June-Sept), X% of products on our BBQ shelf are vegetarian."* *"We never picture meat, fish or poultry in our marketing material, unless we are actually marketing animal products."* *"The standard preparation method listed on all our meal kits is vegetarian. The option to add meat or fish is only mentioned as an alternative."*
The intervention goes beyond legal requirements and is not yet common practice in supermarkets.		*"We offer a wide selection of delicious alternatives to meat."* (Common practice)	*"Our meat substitutes are placed right next to comparable meat products, to inspire non-vegetarians."* *"We offer a substantially larger range of meat substitutes than the average supermarket. Compared to x number of meat products, our range encompasses y number of alternatives."* *"We no longer indicate on our wines whether they go well with meat, fish or poultry. Instead, we suggest pairings with vegetarian dishes or describe the wine's taste in a neutral way."*
The implementation, scope and size of the intervention are clearly described.		*"Where possible, we inspire our customers to eat tasty vegetarian food."* (Unclear how and where)	*"At least x percent of our recipe suggestions for main dishes online and in each store are vegetarian."*
The intervention is (also) aimed at customers who are not actively looking for a more plant-based diet.		*"Vegetarians will find all meat substitutes on a separate shelf."*	*"We make a vegetarian suggestion for every meat product on our shelves."*

		"Our webshops have a filter that allows customers to easily find vegetarian or vegan products."	*"Every meat product selected online comes with a flag; clicking on the flag immediately gives customers a list of vegetarian alternatives."*
The intervention will be in effect for more than a year and is preferably permanent (unless it concerns a scientific experiment).		*"During our Plant Food Week, our promotion flyer did not contain any special offers for meat."*	*"Every other week, our promotion flyer does not contain any special offers for meat."*

Table 6. Conditions that EN-1.2.3 policies must meet.

Each intervention that meets all of the conditions mentioned in table 6 will be awarded 10 points. Interventions that are listed as policy but not implemented in practice get 0 points. Table 7 below lists a number of circumstances that result in extra points.

Extra points (add to basic points)		**Insufficient** (examples)	***Sufficient*** *(examples)*
Supermarket quantitatively reports on the effect of the intervention.	+ 5	*"The intervention was successfully implemented."* (No quantification)	*"The intervention led to a 30% decrease in sales of minced meat, in favour of pulses."* *"The intervention did not demonstrably increase sales of meat substitutes."*
The intervention has been scientifically researched (previously or elsewhere) and has proven to be effective.	+ 5	No reference to literature.	Reference to scientific literature proving the effectiveness of the intervention
In the past 12 months, one or more branches took part in scientific research into this intervention or other interventions that meet the above conditions.	+ 5 [4]	Internal research. Research for product improvement.	Research (e.g. in collaboration with a university) into influencing behaviour at a specific branch in favour of a plant-based diet.
Supermarket takes several distinct actions that all meet the above conditions.	+ 5 per extra intervention	"At least 80% of main meal recipes are vegetarian. Lunch meal recipes are even 100% vegetarian." (Does not involve different interventions)	*"At least 80% of our recipe suggestions are vegetarian, and our promotion flyer never contains more than one offer for meat."*

Table 7. Circumstances that can each yield extra points within EN-1.2.3

The key figure for this indicator is the sum of the points for all interventions that a supermarket has published as official policy and, when checked, implemented.

Weighting in the ranking

In theory, this key figure has no upper limit. To determine the score, we scale this key figure with flexible limits; the upper limit is 60 points, the lower limit 0. For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework.
The weighting of this indicator in determining the ranking of supermarkets is: 0.5.

[4] In the exceptional event that a supermarket has stopped all interventions because scientific research showed them to be ineffective, the supermarket will still receive these extra points for taking part in that research.

Sustainable agriculture (EN-2)

Transparency of supply chains (EN-2.1)

Indicator EN-2.1.1	*policy*
To what extent does the supermarket report on the origin, transport and cultivation method of the products it sells?	

Explanation
Transparency is the first step towards improvement. Knowledge about products' origin, cultivation and transport and whether or not products are certified enables the supermarket to try and increase its sales of sustainable products. This insight also gives policymakers and society greater insight into the transition towards a sustainable food system.
Apart from the assessment of the share of certified products, this indicator primarily measures the *transparency* of the supermarket, rather than the sustainability of the food it sells. Only if supermarkets are transparent about the origin, transport and cultivation of their products will it become possible to properly compare their practices.

Measurement and weighting
We investigate the extent to which the supermarket reports about a number of characteristics of the supply chain that are relevant for the environment. Table 8 provides the points awarded for each type of information that the supermarket publishes or that can potentially be derived from more extensive or more detailed reporting. The format of reporting has no influence on the number of points awarded; what matters is that the information is available.

	Metrics to be reported			
Category	**Certificates**	**Cultivation method**	**Origin**	**Transport method**
Fresh vegetables, incl. potato	10 points	10 points	10 points	10 points
Fresh fruit	10 points	10 points	10 points	10 points
Vegetables, preserves	10 points	10 points		
Fruit, preserves	10 points	10 points		
Eggs	10 points			
Dairy	10 points			
Meat	10 points			
Fish and seafood	10 points			

Table 8. Scoring of EN-2.1.1. A category covers all products with the category as the main ingredient. E.g. the category 'meat' includes ground beef, pork chops, but also sausages, schnitzels etc.

Certificates
Report the share of certified products in the total volume[5] of products in that particular category. We take into account all certificates and company purchasing programmes that have been assessed by Milieu Centraal with a minimum of 4 out of 5 points for the environment and control (see Appendix 2).
A supermarket may also report on other certificates, as long as the share is covered by the certificates can be deduced:

- One or more distinctive certificates as ...% of sales in the category
- No (distinctive) certificate or unknown ...% of sales in the category

This metric is valued for each separate category according to the following calculation. The number of points indicated in the cell in table 8 is multiplied by the reported share of sales with distinctive certificates in that category.

Cultivation method
Report a breakdown of the volume in the category, by cultivation method:

- share of open field cultivation ...% of sales in the category
- share(s) of covered cultivation (greenhouse, tunnel, etc) ...% of sales in the category
- share (partly) unknown ...% of sales in the category

This metric is valued for each separate category according to the following calculation. The number of points indicated in the cell in table 8 is multiplied by the sum of reported shares outside of '(partly) unknown'.

Origin
Report a breakdown of the volume in the category, by origin:

- share coming from the region ...% of sales in the category
- share coming from Germany ...% of sales in the category
- share from the EU (except Germany) ...% of sales in the category
- share from outside the EU ...% of sales in the category
- share of origin mixed EU/non-EU ...% of sales in the category
- share (partly) unknown ...% of sales in the category

Please note that if a supply chain is spread out over multiple countries or regions (for example when cultivation and processing are in different locations), the location furthest from the supermarket's distribution centre counts as the origin. When reporting on a region, please include your definition of regional. This metric is valued for each separate category according to the following calculation. The number of points indicated in the cell in table 8 is multiplied by the sum of reported shares outside of '(partly) unknown'.

Transport method
Report a breakdown of the volume in the category, by type of transport

- road transport ...% of sales in the category
- air + road transport ...% of sales in the category
- water + road transport ...% of sales in the category
- (partly) unknown ...% of sales in the category

This metric is valued for each separate category according to the following calculation. The number of points indicated in the cell in table 8 is multiplied by the sum of reported shares outside of '(partly) unknown'.

[5] See appendix 1 for the definition of 'volume'.

If reporting is aggregated for certain product categories, we will count half the number of points for each of the categories that are merged. For example: a supermarket that reports a combined figure on certified eggs and dairy receives 2 × a maximum of 5 points, instead of 2 × 10 points for separate reporting. If the figure also covers categories not mentioned in table 8 (for example, the supermarket's total sales), we award a quarter of the points. The key figure for this indicator is the sum of the points awarded, which means the maximum achievable score is 240 points.

Weighting in the ranking
To determine the score, we scale this key figure with flexible limits; the upper limit is 80 points, the baseline is 0 points. For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework.
The weighting of this indicator in determining the ranking of supermarkets is: 1.

Sustainable agriculture (EN-2.2)

Indicator EN-2.2.1	*assortment*
To what extent does the supermarket's assortment meet relevant sustainable agriculture standards?	

Explanation
A supermarket can take responsibility for making agriculture more sustainable by guaranteeing a minimum sustainability level through their purchasing conditions. Alternatively, supermarkets offer their customers a choice of certified and uncertified products. In this indicator, we investigate the extent to which a supermarket's assortment is covered by distinctive certificates or company purchasing programmes that take into account environment and nature.
We acknowledge that only looking at certifications to assess retailers' sustainable agriculture efforts may mean we fail to spot certain individual supermarket policies. However, there is currently no other solid way to measure relevant requirements at product level.

Measurement and weighting
Distinctive certificates and company purchasing programmes are those that receive at least 4 out of 5 points for environment and control in Milieu Centraal's assessment (see Appendix 2). This method analyses the extent to which a supermarket takes responsibility for making agriculture more sustainable at three different levels, see table 9.

Level of responsibility	Points
1. No responsibility The assortment does not include any products of the product type that meet the requirements of distinctive certificates or company purchasing programmes.	no points
2. Responsibility lies with the customer The assortment includes at least one choice for this product type that meets the requirements of distinctive certifications or company	1 point per product type

purchasing programmes.	
3. Supermarket takes responsibility For this product type, the assortment only includes products that meet the requirements of distinctive certificates or company purchasing programmes.	5 points per product type

Table 9. Scoring per product type within EN-2.2.1

We have made a selection of clearly defined product types that are widely sold by supermarkets and that reflects the extent to which a supermarket takes responsibility. For fruits and vegetables, we looked at the most sold products (in kg of product) (BMEL, 2024b). For each of the selected product types in table 10, we determine the level at which a supermarket takes responsibility for sustainable agriculture. The key figure is the average number of points for all product types.

Fresh vegetables	Fresh fruit	Animal-based	Other
tomato	apple	milk (natural)	potatoes
onion	banana	yoghourt (natural)	pasta
carrot	grape	gouda (natural, slices)	rice
cucumber	peach	eggs	chocolate tablets
cabbage (white, red)	orange	minced beef (natural)	filter coffee and coffee beans
cabbage / iceberg lettuce	clementine / tangerine	chicken fillet (natural)	tea (black)
cauliflower	pear	pork chops[6] (natural)	

Table 10. Product types per product group within EN-2.2.1.

Weighting in the ranking

The key figure is scaled with flexible limits: 3 as the upper limit and 1 as the lower limit. A supermarket with 3 points gets a score of 100 (unless another supermarket scores higher), a supermarket with 1 point gets a score of 0 (unless another supermarket scores lower). For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework. The weighting of this indicator in determining the ranking of supermarkets is: 1.

[6] A pork chop is a small cut of meat including part of a rib

Combating deforestation and land conversion (EN-2.3)

Indicator EN-2.3.1	*policy*
To what extent does the supermarket take action to stop deforestation and land conversion linked to the use of **soy** in animal feed?	

Explanation
The most important forest-risk commodities for embedded deforestation and CO_2 emissions in the European Union are soybean and palm oil (Bager, Persson, and dos Reis, 2021; WRI, 2024). Much of this soy is used as animal feed for the production of animal products such as meat, cheese and milk. But the cultivation of soy in countries outside of Europe is often problematic. It requires a lot of space, for example, often at the expense of forested areas and other important ecosystems (WWF, 2021b). Deforestation and land conversion play an important role in climate change and contribute to the loss of biodiversity. The import of soy is also a key driver of the nitrogen surplus. In this indicator, we focus on deforestation and land conversion as a separate problem that requires a solution.

Measurement and weighting
For this indicator, we look at a supermarket's publicly available publications to check which action(s) it is taking to stop deforestation and land conversion linked to the production of soy for animal feed. To make a real impact, European retailers should encourage upstream supply chain actors to become 100% sustainable, and only work with upstream actors that are not involved in any unsustainable activities, such as deforestation or conversion of nature.

The reported volume sold must include all products that have animal protein (including meat, fish, egg and all dairy products) as their main ingredient. Wild meat and fish are excluded.
The supermarket receives points for each action in table 11. For the component 'Implementation and control', points can only be obtained if the supermarket scores 2 or more points on 'Deforestation-free soy in animal feed via certification or origin' (see table 12 for the scoring of this).

Intervention		Points
Commitment to deforestation-free and land-conversion free		
Via the EU law deforestation-free soy is guaranteed. Land-conversion free soy is however, for instance the Cerrado region, not included in this EU law. What does a supermarket do to ensure both deforestation ánd land conversion free soy (*other wooded land* and *other ecosystems*)?		
A	A supermarket commits to deforestation-free, conversion-free soy by 2025	1
B	A supermarket commits to deforestation-free, conversion free soy that is physically conversion-free (thus not via certificates) no later than 2025	2
Does the supermarket also require the above commitment of all of their direct		2

suppliers?		
The supermarket uses the so-called 'cut-off date' of 2020, after which both deforestation and conversion will no longer be accepted (AFi, 2019).		3
Transparency about the supply chain		
First step: The supermarket provides information on the origin of soy (max 2 points).		
A	Publication of countries and/or regions of origin. Minimally a differentiation between high risk countries (south-America) vs low-risk	% × 1
B	Publication of municipalities and/or farms of origin	% × 2
The supermarket provides information on the supply chain (max 10 points).		
A	Publication of a list of direct suppliers	% × 5
B	Publication of a list of direct and indirect suppliers	% × 10
Implementation and control		
Baseline: deforestation and land-conversion free soy in animal feed via certification or origin (max 10 points).		Table 12
The supermarket publicly publishes an action plan with a clear target date for implementation of the zero-deforestation and -conversion policy in the supply chain of soy for animal feed. (*) (max 6 points) This includes:		
A	An overview of the risks in the chain, including the *soy suppliers* and the *products* with the highest risk;	2
B	A step-by-step plan to address these risks, including a cut-off date no later than 2025;	2
C	An escalation approach (for instance a grievance mechanism) with concrete consequences if suppliers/traders do not comply with the agreements, including dialogue, suspension and exclusion, as recommended by the Accountability Framework Initiative. This escalation approach enters into force when the cut-off date is not met.	2
The supermarket's purchasing conditions stipulate that soy for animal feed must be deforestation- and land conversion-free. (*)		2
Collaboration with third parties on initiatives that have measurable goals to improve transparency throughout the supply chain and/or to promote sustainable production. (*)		2
Reporting action plan		
Reporting on the compliance action plan at least once a year.		2

Table 11. Scoring of EN-2.3.1. The number of points is the sum of the points of all interventions a supermarket reports on. % stands for the share that is reported on.

(*) This intervention only counts if ≥2 points are given for the 'baseline'.

Efforts to stop deforestation and land conversion via certification	Points
a. Share unknown: conversion not (completely) excluded Sales-weighted share of animal products from farms that (partly) use soy in their animal feed, for which land-use conversion might have taken place, if this is explicitly included in the report. One point is awarded for transparency.	% × 1
b. Share covered by certificates Sales-weighted share of animal products from farms that exclusively use soy covered (separately purchased) certificates/credits. All certificates that comply with the FEFAC Soy Sourcing Guidelines are applicable. *The following apply as certificates/credits: Agricultura Sustentable Certificada, Amaggi Responsible Soy Standard, BFA mv-soja, Cargill Triple S, Sustainable Farming Assurance Program, US Soy Sustainability Assurance Protocol (SSAP), ISCC, Sustainable Feed Standard, ADM Responsible Soybean Standard, Bunge Pro-S, Louis Dreyfus Company (LDC), Programa Coamo and RTRS, SFAP-Non-Conversion, Proterra, Danube Soy/Europe Soy, ISCC+, CRS (IDH, 2022, sec. 3.4.1 and 3.4.2).*	% x 5
c. Share of soy sourced 100% deforestation - and conversion free Sales-weighted share of animal products from farms with 100% deforestation - and conversion free soy. Thus *physically segregated* (DCf volumes). *We ask retailers to explain how they ensure their suppliers only use 100% segregated deforestation and conversion free soy.*	% × 10

Table 12. Levels of deforestation-free soy in animal feed via certification. The total number of points for this component is the sum of the points, where % is the reported share that meets the level. Each kilogram of product sold can only count for one of the above levels. The total is therefore a maximum of 10 points.

The key figure for this indicator is the total of all points awarded in table 11.

Weighting in the ranking
To determine the score, this key figure is scaled with flexible limits; the upper limit is 27, the lower limit is 0. For an explanation of this way of scaling, see 'Score and scaling' in the Research Framework. The weighting of this indicator in determining the ranking of supermarkets is: 0.5.

Indicator EN-2.3.2 *policy*

To what extent does the supermarket take action to stop deforestation linked to the use of **palm oil** in its products?

Explanation

Palm oil is used in a wide range of products, from cosmetics and detergents to candles and biscuits. Worldwide, (tropical) forests and peatlands are burned down to create palm oil plantations. This practice puts local communities and plantation workers at high risk of having their human rights violated, and has a major impact on the climate and ecosystems.

Measurement and weighting

For this indicator, we examine a supermarket's palm oil policy. The indicator uses the Palm Oil Buyers Scorecard as developed by the World Wildlife Fund (WWF, 2021a).

The final score in the most recent Palm Oil Buyers Scorecard will be used, if available. All supermarkets will have the opportunity to answer the questions of the Palm Oil Buyers Scorecard (again) with the most recent information. For supermarkets that choose not to take this opportunity, the score of the most recently published Palm Oil Buyers Scorecard will apply. Supermarkets that were not included in that survey and that do not take the opportunity to answer the questions will be assessed on the basis of their own palm-oil policy, if publicly available. The key figure is the outcome of the most recent published Palm Oil Buyers Scorecard.

Weighting in the ranking

The key figure is fully scaled to a score of 0-100. The weighting of this indicator in determining the ranking of supermarkets is: 0.33.

Climate plan (EN-3)

Emission reductions (EN-3.1)

Indicator EN-3.1.1	*policy*
To what extent does the supermarket have a climate plan in line with the Paris Climate Agreement?	

Explanation
The climate target of net-zero emissions by 2050 is the EU's contribution to the Paris Climate Agreement. The Paris Agreement states, among other things, the goal of keeping the average global temperature increase well below 2°C and sets the target of limiting further warming to 1.5°C. To pursue the Paris Agreement's climate target, Germany has decided to overdeliver and achieve net zero no later than 2045, reducing GHG emissions by 95% compared to 1990. Germany's targets, as defined in the National Climate Change Act (Bundes-Klimaschutzgesetz (KSG), 2019) also include an interim reduction target of 65% by 2030 compared to 1990. To achieve this goal, the agri-food system and thereby supermarkets play an outstanding role.

Measurement and weighing
We research a supermarket's awareness of its responsibility to pursue a net-zero climate target, the granularity of reporting on its emissions sources, the ambition of the net-zero and interim targets set and the roadmap to reach those targets. Additional bonus points can be received for assuring a just transition for suppliers.

The different levels explained

1. *Awareness*
   The supermarket is aware of its own role in achieving the net-zero climate target and takes initiative to meet that responsibility.

2. *Reporting on emission sources & amounts*
   The supermarket provides data for the total amount of its CO2e emissions and their respective sources for the last 24 months to the time of collection. Knowledge of current CO2e emissions enables supermarkets to work towards their climate target and identify key steps in that direction. Since the by far biggest share of emissions occurs within scope 3 (more than 99% as given by Aldi Süd and Edeka (Edeka, 2024; Aldi South Group, 2022)), reporting on this level is critical to receive full points. Further points can be awarded for providing further details into emission category levels or food category levels within scope 3 for both FLAG (Forest, Land and Agriculture) and non-FLAG .

3. *Target setting horizon*
   Points are given for climate targets based on their level of ambition. Any long term target (with a deadline beyond 2030) should be accompanied with an intermediate target at 2030 precisely. This intermediate target should:

- be calculated as a linear interpolation between status quo (current emissions) and the end target.
- receive the same, full commitment of the company as the end target.

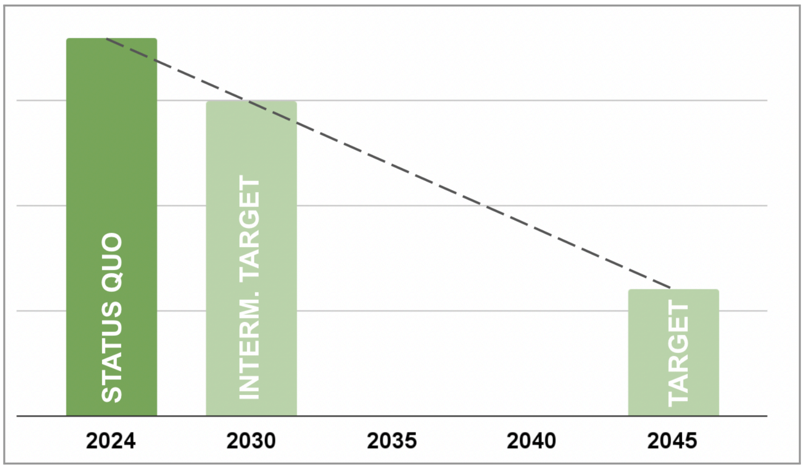

Abbildung 1: Ein Beispiel für die Festlegung eines Zwischenziels für 2030 als lineare Interpolation zwischen dem Status quo und dem Endziel im Jahr 2045.

The end target and interim targets should be in line with the German target of a 95% reduction in 2045 compared to 1990, and a 65% reduction in 2030 compared to 1990, or more ambitious.

4. *Climate Roadmap*
   Besides setting targets and measuring current CO2e emissions, retailers can get points for specifying the roadmap with which they plan to achieve those targets. This sends clear market signals for the supply chain and gives credibility for the targets set.
   Retailers can get points for clearly stating the impact a certain measure will have on the reduction of their overall emissions until net zero. For simplicity reasons measures with an impact below 5%, may be grouped into measurement groups up to 5%.
   Additional points are given for stating that besides for residual CO2e emissions of no more than 5% (compared to 1990) no offsetting will be used for emission reduction.

BONUS: Just Transition

To reduce their emissions, particularly scope 3 emissions, supermarkets will depend heavily on their suppliers. Decarbonization in this context largely involves altering the types of products suppliers produce and the methods they use to produce them. A transition can be considered *just* if the retailer acknowledges the financial challenges these changes impose on suppliers, and publicly commits to sharing the associated costs.

Level	Points	Examples	
1. Awareness (max 5 points)			
The supermarket recognises its own role in contributing to net zero and provides examples of policies to support this climate target.	5	**Insufficient** *Supermarkets must support the climate target of net zero."* (no example of own role).	**Sufficient** *"We support the climate target of being climate neutral by 2050 and are in the process of reducing our scope 3 emissions."*
2. Reporting on emission sources & amounts (max 40 points)			
The supermarket provides insight into its scope 1 & 2 emissions.	5	**Insufficient** *"5% of our emissions occur in scope 1 and 2."* (figures of total emissions are missing, not clear over which period they are measured).	**Sufficient** *"In 2023, we had x tonnes of CO2 equivalent emissions in scope 1 and 2. This equals a share of x% of our total emissions."*
The supermarket provides insight into its scope 3 non-FLAG emissions.	10	*"40% of our emissions occur in scope 3 non-FLAG."*	*"In 2023, we had x tonnes of CO2 equivalent emissions in scope 3 non-FLAG. This equals a share of x% of our total emissions."*
Bonus: Scope 3 non-FLAG explained at emission category level.	+5	*"40% of our emissions occur in scope 3 non-FLAG. A big part is packaging."*	*"In 2023, we had x tonnes of CO2 equivalent emissions in scope 3 non-FLAG. This equals a share of x% of our total emissions. Within our scope 3 non-FLAG emissions, x% comes from x, y% comes from y and z% comes from z."*
The supermarket provides insight into its scope 3 FLAG emissions.	15	*"55% of our emissions occur in scope 3 FLAG."*	*"In 2023, we had x tonnes of CO2 equivalent emissions in scope 3 FLAG. This equals a share of x% of our total emissions."*
Bonus: Scope 3 FLAG explained at food category level.	+5	*"55% of our emissions occur in scope 3 FLAG. Animal products are crucial."*	*"In 2023, we had x tonnes of CO2 equivalent emissions in scope 3 FLAG. This equals a share of x% of our total emissions. Within our scope 3 FLAG emissions, x% comes from x, y% comes from y and z% comes from z."*
3. Target Setting horizon (max 50 points)			
The supermarket has set a net-zero target by 2050, or earlier, across all scopes.	5	**Insufficient** *"We want to be net zero by 2050." (no scope mentioned)*	**Sufficient** *"We have committed to achieve net-zero emissions across all scopes by 2050."*
The supermarket has set a net-zero target by 2045 or earlier across all scopes, <u>including</u> an interim target by 2030 in line (linearly	45	*"We want to be net zero by 20425" (no scope mentioned, no interim target)*	*"We have committed to achieve net-zero emissions across all scopes by 2045. This means that in 2045 our total emissions are reduced by 95%, compared by 1990. As an interim target we adhere to a reduction of 65% by 2030.*

interpolated) with the 2045 target.			
4. Climate Roadmap (max 105 points)			
The total reduction potential for specific mitigation measures is given. Calculation: 100 points * % of the total emission reduction potential of the specified mitigation measures.	100 * %	**Insufficient** *"We want to achieve our net-zero goals via a combination of measures such as manure management or protein transition."*	**Sufficient** *"We want to achieve our net-zero goals via a combination of measures. Via a protein transition we will reduce our total emissions by 23%. Manure Management will further reduce our emissions by 8%. .... (etc)"* *Example calculation:* * 23 points for Protein Transition reduction of overall emissions* * 8 points for Manure Management reduction of overall emissions* *Total: 31 points*
No offsetting (besides residual 5%).	10	*"We refrain from offsetting whenever possible."*	*"We will reduce our own emissions by at least 95%, for the residual 5% or less of our emissions we will use offsets."*

BONUS: Just transition (max 10 points)			
Financial support of suppliers adaptation.	10	**Insufficient** *"We urge our most important suppliers to set themselves climate targets."*	**Sufficient** *"We acknowledge the financial burden of decarbonising agricultural production and are financially supporting our suppliers sufficiently to do so."*

Table 14. Score of EN-4.1.1 with examples per level.

The key figure for this indicator is the sum of points a supermarket receives according to table 14. The maximum score on this indicator is therefore 210 points.

If the reporting or targets are not about all products, it is important to indicate the share of the product range within these categories. For policies that concern only own brand quality labels, the own brand quality label factor applies (see appendix 3).

Weighting in the rankings
This key figure is not scaled, but it constitutes the score on this indicator. The weighting of this indicator in determining the ranking of supermarkets is: 1,5.

Appendices

APPENDIX 1

Definitions

This research methodology for Germany's Superlist Environment uses the following definitions, unless stated otherwise. The definitions used in the Research Framework are also applicable.

Promotion	Mention of one product or a group of products in a supermarket's weekly promotion flyer, for which, for example, a special price applies, or which the supermarket highlights for a different reason. See also the Research Framework (Questionmark, 2023).
Main ingredient	The first ingredient in a product's list of ingredients. If the second ingredient is present in a comparable amount, both ingredients may be considered the main ingredient. If a product lacks an ingredient declaration, the main ingredient is derived from the product's name or category, if possible.
Sustainable agriculture	Sustainable agriculture meets the needs of present and future generations, while ensuring profitability, environmental health, and social and economic equity. Sustainable food and agriculture contributes to all four pillars of food security – availability, access, utilisation and stability – and the dimensions of sustainability (environmental, social and economic) (FAO, 2022).
Distinctive certificate	A certificate or company purchasing programme (as a company logo) that takes relevant environmental action, with a proper control system in place. See also Appendix 2.
Volume	Weight in kilograms as a percentage of the total food volume. 'Volume' can refer to either purchasing or sales volume, provided that the supermarket makes clear which one of the two is meant.

APPENDIX 2

Sustainability certifications and corporate sustainability programmes

Certifications
Several of the indicators of this methodology use certifications to measure (an aspect of) sustainability. But the certifications that are in use today have varying degrees of control, and not all of them have distinctive environmental requirements. For this research, we used a selection of certifications, based on the *Keurmerkenwijzer* assessment of Milieu Centraal (Milieu Centraal, 2023).
That assessment provides an overview of certifications and company purchasing programmes (in the form of company logos) used in the Netherlands and applicable to Germany as well. Milieu Centraal assessed these certifications on a number of aspects: their level of ambition with regards to environmental, social and animal welfare efforts; reliability and transparency. Standards, sustainability labels and logos are marked as 'top certifications' if they score a minimum of 4 out of 5 points on all aspects. These 'top certifications' correspond to the certifications deemed 'most ambitious' in another analysis conducted by Basic, WWF and Greenpeace (WWF/Greenpeace/Basic, 2021).
Because the emphasis of our study is on the difference a certification makes on the environment, we only considered Milieu Centraal's assessment in terms of environmental requirements and control. We use the same lower limit as they did for their top certifications, namely 4 out of 5 points. We use the term 'distinctive certificates' for these certifications.

Certification	Fish	Meat	Dairy	Eggs	Fruit & vegeta-bles	Tropical fruit & vegetables	Coffee	Tea	Cocoa	Rice
ASC	✓									
Bioland	✓	✓	✓	✓	✓					
Bio Siegel	✓	✓	✓	✓	✓					
Demeter		✓	✓	✓	✓	✓				
EU organic	✓	✓	✓	✓	✓					
Fair for Life					✓	✓				
Fairtrade							✓	✓	✓	
GGN Certified Aquaculture	✓									
KRAV	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

MSC	✓									
Naturland Aquakultur	✓									
Naturland	✓	✓	✓	✓	✓					✓
Rainforest Alliance					✓	✓	✓	✓	✓	✓
UTZ							✓	✓	✓	✓
Soil Association	✓									
Sustainable Rice Platform (SRP)										✓

Table 15. Certifications accepted for this theme. All combinations of certifications and product groups marked with '✓' are accepted; when there is a '–' the certification does have criteria for the product category, but these are not strict enough for us to be able to accept them.

Corporate sustainability programmes
Certifications give a brand the opportunity to prove that its environmental efforts are verified by an independent third party. This is the most transparent, and thus preferred, route. However, a brand or supermarket can choose to take action by itself, for example when certifications do not yet exist for a certain product type.
Retailers can include ambitious environmental requirements in their purchasing programmes or comply with sector-wide or nationwide programmes. If such requirements are publically available and if they meet the *Keurmerkenwijzer* criteria, we will take them into account. Retailers can contact Questionmark if they feel that important corporate sustainability programmes meet the *Keurmerkenwijzer* criteria.

Other corporate programmes
So far, German purchasing programmes/company logos have not yet been (thoroughly) assessed in terms of their environmental efforts for products and ingredients. That is why we apply the same three criteria Milieu Centraal uses in its assessment of environmental labels: ambition level, reliability and transparency (Milieu Centraal, 2023) . Based on information that is available today, we have not found any German purchasing programme to be relevant for the scope of this research, as none currently meet the necessary requirements.

Development of international standards for comparison

Apart from certifications and corporate sustainability programs, two new concepts are relevant to this research: Product Environmental Footprint and EcoScore. Both concepts have the potential to make our food system more transparent. The active contribution of several supermarkets to the developments of these concepts is an indication of the importance they attach to ecological sustainability and should be applauded. Below, we describe the role these concepts (may) have in this project (going forward).

Product and Organisation Environmental Footprint (PEF/OEF)

Product Environmental Footprint (PEF) is a standardised way of measuring the environmental performance of a service or goods throughout its life cycle. A closely related concept is the Organisation Environmental Footprint (OEF), which is calculated at the level of an organisation (such as the retailer). The development of the PEF/OEF methodology was initiated by the European Commission.
PEFs are not yet available for all food products or product types, and a retail OEF (which might be more relevant in this context) is still being developed. We may adjust our Superlist methodology in the next few years to align with (or include) PEF/OEF requirements. For now, however, we cannot expect supermarkets to use these concepts at a scale that would be relevant to the objectives of this project.

EcoScore
EcoScore is an environmental score from A to E, intended to help consumers compare the environmental impact of different food products. The EcoScore approach has its roots in France but is currently being adjusted to and tested in several other European countries as well. While it has the potential to become a useful benchmark for indicating a product's environmental sustainability, there is still no broad consensus on the exact methodology to be used and most products still lack an EcoScore. The concept currently relies on self-assessment by the supplier, with no third-party verification provided.

EcoScores are based on an assessment of the environmental impact of food products in absolute terms, including their emission of CO_2 equivalents, water footprint, etc. This exact assessment requires information about several different parameters like the product's production methods, origin and method of transport. If such data is not available, sector averages (based on knowledge about the general product type) may be used.
We consider EcoScore an intermediate step towards supply chain transparency, but do not take it into account in the methodology.

APPENDIX 3

Private label factor

A supermarket is responsible for its entire product range. In practice, supermarkets sometimes only provide information on their private label products. To make that information mutually comparable, a private label factor is applied. If a supermarket only has a policy on private label products on a certain subject, the points for that subject are multiplied by the own brand factor.

- If a supermarket has a policy on private label products but does not give information on the proportion of private label products in relation to the total product *sales*, we use a private label factor of 0.2.
- If a supermarket publicly reports the share of private label products in their total *sales*, the private label factor is equal to this share.

Share of private label	Own brand factor
unknown	0.2
% published	%

References

AFi, 2019. 'Operational Guidance on Cutoff Dates'. 'Operational Guidance on Cutoff Dates'. Accountability Framework initiative. https://accountability-framework.org/operational-guidance/cutoff-dates/

Aldi South, 2022. 'ALDI Continues to Reduce Emissions and Sets Science Based Targets for Climate Protection'. 'ALDI Continues to Reduce Emissions and Sets Science Based Targets for Climate Protection'. 2022. https://sustainability.aldisouthgroup.com/stories/aldi-sets-science-based-targets-for-climate-protection

Bager, Persson, and dos Reis, 2021. 'Eighty-Six EU Policy Options for Reducing Imported Deforestation: One Earth'. Bager, Simon L, U. Martin Persson, and Tiago N.P. dos Reis, no. 4 (2): 289. https://doi.org/10.1016/j.oneear.2021.01.011

Be4Life, 2018. 'Het Duwtje in de Juiste Richting: Langetermijneffecten Gedrag. Hoe de Vlaamse Consument Begeleiden Naar Een Milieuverantwoord Consumptiepatroon. -Case Retail & Case Bedrijfsrestaurants'. Slabbinck, Hendrik, Anneleen Van Kerckhove, Iris Vermeir, Maggie Geuens, Ellen Boudry, and Nicky Coucke. Gent: Onderzoeksgroep consumentengedrag - Be4Life. https://omgeving.vlaanderen.be/sites/default/files/atoms/files/Eindrapport%20gedrag%20en%20voeding%20lange%20termijn.pdf

BMEL, 2012. 'Eiweißpflanzenstrategie des BMEL'. 'Eiweißpflanzenstrategie des BMEL'. 2012. https://www.bmel.de/DE/themen/landwirtschaft/pflanzenbau/ackerbau/eiweisspflanzenstrategie.html

BMEL, 2023. 'Bio-Strategie 2030'. 'Bio-Strategie 2030'. Bundesministerium für Ernährung und Landwirtschaft. https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/bio-strategie-2030.pdf?__blob=publicationFile&v=10

BMEL, 2024a. 'Gutes Essen Für Deutschland - Ernährungsstrategie Der Bundesregierung'. 'Gutes Essen Für Deutschland - Ernährungsstrategie Der Bundesregierung'. Bundesministerium für Ernährung und Landwirtschaft. https://www.bmel.de/SharedDocs/Downloads/DE/_Ernaehrung/ernaehrungsstrategie-kabinett.pdf?__blob=publicationFile&v=8

BMEL, 2024b. 'Tabellen Kapitel D und H.IV des Statistischen Jahrbuchs'. 'Tabellen Kapitel D und H.IV des Statistischen Jahrbuchs'. https://www.bmel-statistik.de/ernaehrung/tabellen-kapitel-d-und-hiv-des-statistischen-jahrbuchs

Bundes-Klimaschutzgesetz (KSG), 2019. Vol. BGBl. I S. 2513. https://www.gesetze-im-internet.de/ksg/BJNR251310019.html

Cavanagh, Vartanian, Herman, and Polivy, 2014. 'The Effect of Portion Size on Food Intake Is Robust to Brief Education and Mindfulness Exercises'. *Journal of Health Psychology*. Cavanagh, Karen, Lenny R Vartanian, C Peter Herman, and Janet Polivy 19 (6): 730–139. https://journals.sagepub.com/doi/10.1177/1359105313478645

DGE, 2024. 'DGE-Ernährungskreis'. 'DGE-Ernährungskreis'. 2024. http://www.dge.de/gesunde-ernaehrung/gut-essen-und-trinken/dge-ernaehrungskreis/

EAT, 2019. 'EAT-Lancet Commission Summary Report'. EAT. https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf

EC, 2020. 'Factsheet EU Biodiversity Strategy. Bringing Nature Back into Our Lives'. ISBN

978-92-76-18410-2. 'Factsheet EU Biodiversity Strategy. Bringing Nature Back into Our Lives'. European Commission. https://ec.europa.eu/info/sites/default/files/env-20-002_factsheet1-vbo-en-b.pdf

Edeka, 2023. 'EDEKA-Verbund: Klima-Bilanz'. Edeka. 2023. https://verbund.edeka/verantwortung/handlungsfelder/umwelt/energie-klima/klimabilanz.html

EU, 2020. 'Farm to Fork Strategy. For a Fair, Healthy and Environmentally-Friendly Food System'. 'Farm to Fork Strategy. For a Fair, Healthy and Environmentally-Friendly Food System'. European Commission. https://ec.europa.eu/food/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf

EU, 2021a. 'Dietary Protein - Overview of Protein Intake in European Countries'. 'Dietary Protein - Overview of Protein Intake in European Countries'. 2021. https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/dietary-protein-overview-countries-6_en

EU, 2021b. 'EU Code of Conduct on Responsible Food Business and Marketing Practices'. 'EU Code of Conduct on Responsible Food Business and Marketing Practices'. European Union. https://ec.europa.eu/food/system/files/2021-06/f2f_sfpd_coc_final_en.pdf

European Parliament, Council of the European Union, 2021. *Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 Establishing the Framework for Achieving Climate Neutrality and Amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). OJ L*. European Parliament, Council of the European Union. Vol. 243. http://data.europa.eu/eli/reg/2021/1119/oj/eng

FAO, 2022. 'Sustainable Food and Agriculture'. Sustainable Food and Agriculture. FAO. 2022. http://www.fao.org/sustainability/en/

Fevia, 2022. 'Verpakkingen 2025'. Text. Verpakkingen 2025. Fevia. 2022. https://www.fevia.be/nl/verpakkingen2025

Green Protein Alliance and Proveg Netherlands, 2023. 'The Protein Tracker'. Green Protein Alliance, and Proveg Netherlands. https://greenproteinalliance.nl/wp-content/uploads/2023/11/The-Protein-Tracker-2023-Green-Protein-Alliance-Proveg-20231102.pdf

IDH, 2022. 'Beyond Chocolate'. IDH. 2022. https://www.idhsustainabletrade.com/initiative/beyondchocolate/

Mihr, 2024. 'Inflation treibt Wachstum - Top 30 Ranking im deutschen LEH 2023'. Lebensmittelpraxis.de. Mihr, Reiner. 12 March 2024. https://lebensmittelpraxis.de/top-30-unternehmen-im-leh.html

Milieu Centraal, 2023. 'Keurmerkenwijzer'. Milieu Centraal. January 2023. https://keurmerkenwijzer.nl/

Our World in Data, 2021. 'Per Capita Sources of Protein, 2021. Germany'. Per Capita Sources of Protein, 2021. Our World in Data. 2021. https://ourworldindata.org/grapher/per-capita-sources-of-protein

PBL, 2020. 'Voedselconsumptie veranderen: bouwstenen voor beleid om duurzamere eetpatronen te stimuleren'. 4044. PBL. Planbureau voor de Leefomgeving. https://www.pbl.nl/publicaties/voedselconsumptie-veranderen

PHE, 2020. 'An Analysis of the Role of Price Promotions on the Household Purchases of Food and Drinks High in Sugar, and Purchases of Food and Drinks for out of Home Consumption.' GW-596. Hill, Russell, James Kirk, and Cathy Capelin. Public Health England. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/947412/Sugar_Reduction_analysis_of_price_promotions_on_the_household_purchases_of_food_and_drinks_high_in_sugar__4_.pdf

Poore and Nemecek, 2018. 'Reducing Food's Environmental Impacts through Producers and Consumers'. *Science*. Poore, J., and T. Nemecek 360 (6392): 987–92. https://doi.org/10.1126/science.aaq0216

Questionmark, 2023. 'Superlist Research Framework v1.4'. Gustaaf Haan, Willem van Engen, Deborah Winkel, and Charlotte Linnebank. Stichting Questionmark. https://www.thequestionmark.org/download/superlist-research-framework-v1.4.en.pdf

Scarborough, Clark, Cobiac, Papier, Knuppel, Lynch, Harrington, Key, and Springmann, 2023. 'Vegans, Vegetarians, Fish-Eaters and Meat-Eaters in the UK Show Discrepant Environmental Impacts'. *Nature Food*. Scarborough, Peter, Michael Clark, Linda Cobiac, Keren Papier, Anika Knuppel, John Lynch, Richard Harrington, Tim Key, and Marco Springmann 4 (7): 565–74. https://doi.org/10.1038/s43016-023-00795-w

Statistica.com, 2024. 'Meat: Per Capita Consumption in Germany 2022'. Statista. Statistica.com. 2024. https://www.statista.com/statistics/525324/meat-per-capita-consumption-germany/

Steenhuis, Leeuwis, and Vermeer, 2010. 'Small, Medium, Large or Supersize: Trends in Food Portion Sizes in The Netherlands'. *Public Health Nutrition*. Steenhuis, Ingrid H. M., Franca H. Leeuwis, and Willemijn M. Vermeer 13 (6): 852–57. https://doi.org/10.1017/S1368980009992011

UN, 2015. 'Paris Agreement'. 'Paris Agreement'. Paris: United Nations. https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Willett, Rockström, Loken, Springmann, Lang, Vermeulen, Garnett, et al., 2019. 'Food in the Anthropocene: The EAT–Lancet Commission on Healthy Diets from Sustainable Food Systems'. *The Lancet*. Willett, Walter, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, et al. 393 (10170): 447–92. https://doi.org/10.1016/S0140-6736(18)31788-4

WRI, 2024. 'Deforestation Linked to Agriculture | Global Forest Review'. World Resources Institute. 2024. https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture

WWF, 2021a. 'Palm Oil Buyers Scorecard'. 'Palm Oil Buyers Scorecard'. https://palmoilscorecard.panda.org/

WWF, 2021b. 'Stepping up? The Continuing Impact of EU Consumption on Nature Worldwide'. 'Stepping up? The Continuing Impact of EU Consumption on Nature Worldwide'. WWF. https://wwfeu.awsassets.panda.org/downloads/new_stepping_up___the_continuing_impact_of_eu_consumption_on_nature_worldwide_fullreport.pdf

WWF UK, 2022. 'WWF Protein Disclosure Guide'. WWF UK. https://www.wwf.org.uk/sites/default/files/2022-03/Protein-Disclosure-Guide.pdf

WWF/Greenpeace/Basic, 2021. 'Étude de Demarches de Durabilité Dans Le Domaine Alimentaire'. 'Étude de Demarches de Durabilité Dans Le Domaine Alimentaire'. WWF/Greenpeace/Basic. https://lebasic.com/wp-content/uploads/2021/06/VF_RAPPORT_TRANSVERSE_20210924.pdf

Zlavetska, Dubelaar, and Holden, 2014. 'Sizing up the Effect of Portion Size on Consumption: A Meta-Analytic Review'. *Journal of Marketing*. Zlavetska, Natalina, Chris Dubelaar, and Steven S Holden 78 (3): 140–54. https://journals.sagepub.com/doi/10.1509/jm.12.0303