

# PLANT-BASED FOR THE FUTURE

Insights on European consumer  
and expert opinions



UNIVERSITÀ  
DEGLI STUDI  
DI TORINO

Findings are based on the results of a qualitative study carried out by Dr Beate Gebhardt, University of Hohenheim, Department of Agricultural Markets, in cooperation with the University of Turin (Italy), the Polish Academy of Sciences, Olsztyn (Poland), the University of Aarhus (Denmark), and the Consejo Superior de Investigaciones Científicas (CSIC), Spain, as part of the 2020 EIT Food project "The V-Place - Enabling consumer choice in Vegan or Vegetarian Food Products", led by the Hohenheim Research Center for Bioeconomy at the University of Hohenheim, Germany.



# PLANT-BASED FOOD IN EUROPE

## Scope of This Study

Product variety has come a long way in the past years. While vegetarian and vegan specialty products used to be the exception, they are now more popular than ever. Approximately 75 million European consumers purchase vegan or vegetarian foods and the trend is rising. One in five European consumers even deliberately aims to consume fewer animal products and this number is growing rapidly.<sup>1</sup>

Today, this development is mainly driven by this rather diverse target group: 'flexitarians' – people who actively seek to reduce their consumption of animal products without banning them from their menus altogether. As the demand for such products has increased, supermarkets have begun to adapt and offer an increasing amount of plant-based options in their aisles. In this process, plant-based meat and dairy alternatives have emerged as the most sought-after product

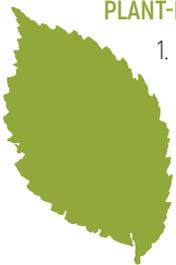
groups. But even though such products are becoming more widely accepted by the day, plant-based and vegan alternatives are far from being the norm and many consumers still treat them with caution. Aiming at gathering candid insights about the background, drivers and barriers of these developments, experts and consumers of five European countries were interviewed and form the basis of this Whitepaper.

### PLANT-BASED FOODS TODAY – WHAT ARE THE GUIDING THEMES?

1. Do consumers opt for plant-based foods for health, ethical, ecological, or other very different reasons?
2. What reservations and barriers do consumers have towards these novel foods?
3. What needs do consumers express in terms of communication and information?

The study consists of qualitative interviews with 70 experts and consumers in 5 EU countries<sup>2</sup>: Germany, Italy, Denmark, Spain and Poland. It will be followed by a further quantitative study to appear in 2021.

<sup>1</sup> Veganz study, October 2020: <https://vegan.com/blog/vegan-nutrition-study-2020>. <sup>2</sup> The interviews were conducted by telephone and in writing.



# PRODUCTS & LIFESTYLES – TERMINOLOGY AND IMPORTANT DIFFERENCES

Product variety, labels, lifestyles, and eating habits have evolved throughout the last decade and have certainly have become more complex. When discussing different products and eating habits, it is important to be precise in terminology to ensure clarity and avoid misunderstandings. In the various countries of the survey, the words in the native language may have more nuanced connotations.

## Product properties

- **Vegan** – Vegan products do not contain any animal-based ingredients, such as meat, fish, dairy, eggs and honey. The production process must not use animal-derived products either, such as gelatine for clarifying juice or wine, or animal-based glue for product packaging.
- **Vegetarian** – Vegetarian foods exclude meat and fish, but may include ingredients like dairy, eggs, and honey.
- **Plant-based** – For food, the term plant-based refers only to a processed product's ingredients. A plant-based product does not contain any animal-based ingredients.
- **Plant food** – Plant foods refer to unprocessed plants that are part of the human diet, such as fruit, vegetables, legumes and spices.

## Eating habits



### Vegan

Vegans refrain from including any animal based products in their diet, thus excluding meat, fish, dairy, eggs, honey, etc. Their diet may consist of plant foods and processed foods that purely contain plant-based ingredients.



### Vegetarian

A vegetarian diet includes animal-based ingredients but no meat. Therefore, eggs, dairy and honey may be included whereas meat and fish are excluded.



### Flexitarian\*

Flexitarians deliberately aim to reduce animal products in their diet, but do not strictly exclude any food group.



### Omnivore

An omnivore diet does not exclude any foods or food groups.

\* Definition used in the context of this Whitepaper. The flexitarian share of consumers is harder to pinpoint compared to other consumer groups.

# TWO TERMS NOT CREATED EQUAL: VEGAN VS. PLANT-BASED

With numbers on the rise, flexitarians seem to be the fastest growing target group for plant-based products. However, currently available plant-based alternatives are not really marketed or communicated towards them, leaving consumers in want of more information, more variety and improved availability. The term flexitarian is still vague and consumers simply interested in plant-based alternatives most likely do not define themselves as flexitarian. In this study, flexitarians are defined as consumers who actively aim to reduce their consumption of animal products without cutting them out completely.

The term plant-based includes all products that are made from plants and designed as substitutes to common animal-based products, some even mimick their taste, texture, or appearance. Popular examples are plant-based drinks as milk alternatives, meatless burger patties and egg substitutes.

While foods that are labelled as vegan could also be labelled plant-based, research shows that both terms are not created equal. Consumers seem to associate the term vegan with an ideological, almost unforgiving approach. The term plant-based, on the other hand, seems to be more appealing and inviting – and to be attracting more and more consumers.

## **Diverse and misunderstood:**

### **Target groups for plant-based foods**

Traditionally, plant-based products are marketed mainly towards consumers following a vegan or vegetarian diet and therefore strictly excluding certain animal products from their diets. The significant increase in demand of plant-based products, however, is not driven by vegans or vegetarians, but by flexitarians: a diverse, yet large group of consumers who actively seek to reduce their consumption of animal products to varying degrees – without cutting them out strictly from their diet.

Despite being a promising target group for the plant-based industry, flexitarians often do not feel addressed. One reason may be that flexitarians are difficult to pinpoint. Some may only reduce meat or dairy and are thus often considered to be part of the omnivore or vegetarian group. Reasons for flexitarians to reduce animal products are highly diverse and range from personal wellbeing to sustainability and animal welfare. Equally, barriers that keep consumers from deciding for plant-based alternatives vary greatly and include lack of availability, unappealing taste and even health concerns.

While plant-based foods can be found all over Europe, we found that reasons to decide for or against plant-based products vary between the countries. These regional differences might also depend on local market dynamics, product offers and legal regulations.

## **Confused but curious:**

### **Consumers yearn for credible information**

Overall, the results of this study indicate that consumers in all countries wish for basic and practical information on plant-based foods, what they're made from, where to buy, and how to prepare them. Most importantly, resources need to be credible, as there exists already too much misinformation. Credible sources of information may be governmental and scientific institutions. Vegan and vegetarian organisations are considered credible resources to only a limited extent. Consumers request more objective resources, available conveniently, for instance on social media, apps, or at the point of sale.

Insights of experts in the field and consumers are highly diverse, representing the diverse character of the flexitarian target group.

# VARIETY IS KEY

## Expert voices on plant-based meat alternatives



### Poland

"Not so diverse"

#### Important

Hams and sausages are dominant as well as chilled products for lunch/dinner (PL-E8); Soy cutlets – various forms, soy grits and frankfurters are widely available (PL-E6); Generally there are plant-based substitutes for hot-dogs, burgers and tofu (PL-E7).

#### Missing

Little access to fresh meat alternatives, e.g. minced (such as Beyond Meat), but apparently a new company with such production. Demand for regional plant-based specialties is rising, as well as better adoption by gastronomy.



### Germany

"A lot of of innovation"

#### Important

Burger patties, nuggets (DE-E7); Burgers and sliced meats will probably be the top-selling products (DE-E6); burger patties, nuggets, TVP, cold cuts, etc. are the most important (DE-E8).

#### Missing

The whole variety of sausage cuts (e.g.: salami, ham) is missing. So far there are only good alternatives to mortadella and Lyoner sausage. Most (fried) sausage alternatives are not convincing (DE-E6); technological challenges (ingredients) and there is also less variety than with MoPro-Alt (DE-E8). In organic quality: almost no convincing products to be found (DE-E6).



### Denmark

"Very limited product range"

#### Important

Mince, pip-free, sausages, chunks and the like. Minced meat of pure raw materials (without extruded plant proteins, clean label). Organic is important. Consumers have clear preferences for organic products – though taste is also extremely important).

#### Missing

Alternatives to fish; Egg alternatives.



### Italy

"Medium variety"

#### Important

Burgers are definitely the most important group.

#### Missing

There could be more products.



### Spain

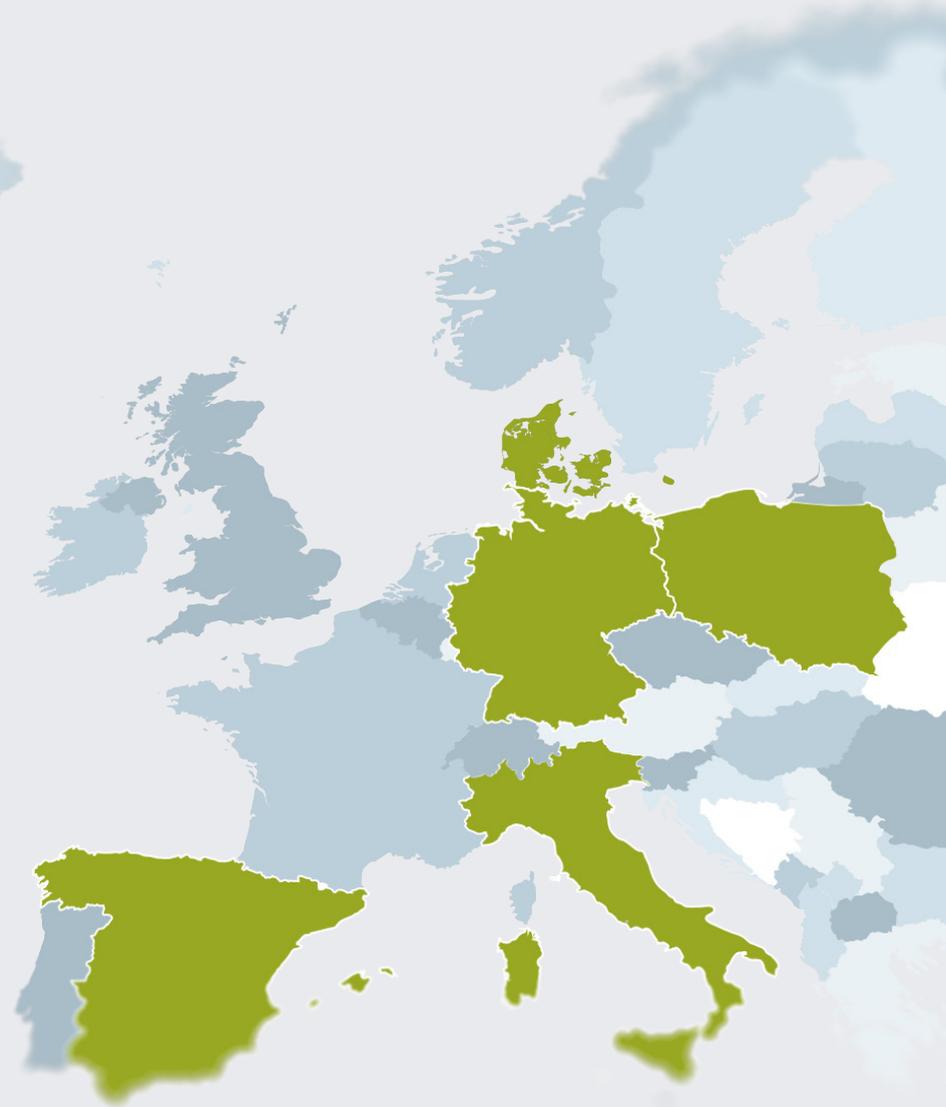
"Limited diversity"

#### Important

–

#### Missing

–



# MORE VARIETY TO WIN CUSTOMERS

## Expert voices on plant-based dairy alternatives



### Poland

"big variety"

#### Important

Dairy drinks dominate (PL-E6) / Plant-based milk: soy milk is the main product but new items are entering the market (almond, oat and rice milks) (PL-E7).

#### Missing

There is a lack of cheese and drinks other than yogurt (PL-E6); of products derived from 100% local ingredients (lupins, peas) and from Polish concerns (the majority of available marks are foreign). Other dairy products are: recent availability of plant-based mayonnaise and ice cream had strongly improved but there is still a lack of good quality cheese, yoghurts, cream, etc. (PL-E7); lack of a broad variety of plant-based yoghurt, creams, cheese (PL-E8).



### Germany

"Quite diverse"

#### Important

Classic milk alternatives with the highest sales, followed by yoghurt and cheese alternatives (DE-E6); Alternatives to cow's milk, yoghurt and cream cheese are most strongly represented (DE-E8).

#### Missing

Cheese in its diversity analogous to animal products (feta, hard cheese, fondue cheese etc.), the different uses (DE-E6); cheese alternatives of convincing quality and variety (DE-E8).



### Denmark

"Most plant drinks are made from oats, soy and almond."

#### Important

Product groups: Plant drinks, organic. Oat drink. Plant butter and spreadable. Plant cream to a slightly lesser extent.

#### Missing

Sour cream and plant cheeses that taste better - and different flavors. / Important product groups that are generally lacking. Alternatives to fish and eggs.



### Italy

"High variety"

#### Important

Soy milk is the most important with oat milk growing and right behind.

#### Missing

Plant-based cheese is definitely lacking, especially in supermarkets.



### Spain

"Wide diversity"

#### Still missing

Cheese, ice cream alternatives.



# CONVINCING CONSUMERS

## Expert voices on plant-based marketing



### Poland

#### Do's

- Depict delicious meals and show variety
- Be aware of gluten's mixed image, label products clearly
- Attractive packaging designs and information provided on the packaging is important
- Convince with scientific evidence

#### Don'ts

- Don't overuse terms like 'natural' or 'healthy'
- Don't lose the right balance between informational and attractive



### Germany

#### Do's

- Position products as culinary enrichment rather than a substitute
- Focus on positive, fact-based messages
- Stress environmental benefits
- Regionality can be a new differentiator

#### Don'ts

- Avoid moral or ideological messages. Instead focus on consumers' curiosity
- Don't focus on health or ethical motivators at the POS



### Denmark

#### Do's

- Focus on sustainability or organic ingredients and address scepticism openly
- Communicate clearly and tangibly so consumers can recognize the product quickly
- Give more attention to media and initiate cooperations with trusted associations or authorities

#### Don'ts

- Don't use 'original' names but opt for new names for plant-based products
- Don't stress the term 'vegan', focus on plant-based instead



### Italy

#### Do's

- High quality products are needed as a base
- Communicate ingredients, quality and level of processing clearly
- Focus on clear information provided on the packaging so consumers know what to expect
- Enable practical experiences and support personal recommendations

#### Don'ts

- Don't add animal-derived flavours or additives in products labelled 'vegan' or 'natural'



### Spain

#### Do's

- Focus on environmental benefits or animal-related advantages
- Invest in credible certifications (e.g. V-Label)
- Support legal definition processes to overcome the spread of misleading information and mistrust

#### Don'ts

- Don't market a product as healthy if it isn't
- Don't make up own vegan labels, use existing ones instead



# DECISION FRAMEWORK: HOW CONSUMERS DECIDE FOR OR AGAINST A PLANT- BASED PRODUCT

The decision for or against a plant-based product is a multi-layered process. Consumers consider numerous factors, from ingredients and degree of processing to the quality and sustainability of a product's packaging. As the target group for plant-based products is characterised by a large degree of diversity, so are the factors that individual consumers take into consideration when shopping.



# CONTEXT AND KEY FACTS & FIGURES

The dietary profile of Europeans has changed considerably over the last generation, becoming more heterogeneous and harder to pinpoint. There is an overall trend towards meat and dairy reduction for a variety of motives.

## Changing consumer profiles

Since 2016, the number of those who identify as vegans has doubled from 1.3 million to 2.6 million in Europe<sup>3</sup>. Looking at all those who actively reduce or fully exclude at least some animal products, including vegetarians, pescatarians and flexitarians, the group in total represents 30.8% of the population: 10 to 30 % of Europeans no longer consider themselves full meat-eaters anymore.

## Growing Market

European retail sales of meat and dairy alternatives have grown by almost 10% per year between 2010 and 2020. The plant-based alternatives market in the EU and the UK is set to be worth €7.5 billion by 2025, compared to €4.4 billion in 2019<sup>4</sup>, a 70% increase.

The product groups with the highest revenue are meat and dairy alternatives. In 2019, the global meat alternatives market was valued at US\$ 4,532.6 million and is anticipated to reach US\$ 7,106.7 million by 2025. The global dairy alternatives market (including milk substitutes) was valued at US\$ 16,130.9 million in 2019 and is anticipated to reach US\$ 41,061 million in 2025.<sup>6</sup>

## Regulations & the lack thereof

An official definition and label for both vegan and plant-based foods can be a key driver for a more transparent market for producers and consumers. Of the countries in the study, only Germany (2016) and Poland (2014) have a vegan definition. No country in the study yet has a definition for plant-based foods.

The need for clarity on labelling has recently been brought to the fore at EU level in the controversy around using meat labels for meat alternatives<sup>5</sup>. In the meantime, multiple terms are used to describe plant-based foods, from 'floral' (Poland) to 'planetary diets' (Denmark) to 'plant powered' (Germany).

<sup>3</sup> Veganz study, October 2020 <https://vegan.com/blog/vegan-nutrition-study-2020>. <sup>4</sup> ING study, October 2020 <https://think.ing.com/articles/plant-based-meat-and-dairy-to-become-75-billion-market-in-europe-by-2025>.

<sup>5</sup> Financial Times article, October 2020 <https://www.ft.com/content/f583d3f2-38a2-4f7a-9538-9899971413ec>. <sup>6</sup> The Vegetarian Society of the United Kingdom.

# WHAT DRIVES CONSUMERS TO OPT FOR PLANT-BASED ALTERNATIVES?

Why are more consumers, regardless of their dietary preferences, buying more plant-based foods than ever before? The list of arguments entertained by companies, NGOs and communities is long, ranging from benefits on personal and global health to positively impacting climate change with individual food choices. The interviews with industry experts and consumers reveal: the reasons are very diverse.

The study identified many diverse motives, drivers and needs for the further development of plant-based food markets in Europe:

## Health reasons

Concerns including allergies, aesthetic motives (e. g. weight reduction), and nutrition-related health issues inspire individuals to seek dietary alternatives to conventional animal products.

## Sustainability & animal welfare

Broadly available data and insights on animal welfare, as well as more information on the impact of animal products on the environment and climate change, inspire consumers to make more ethical choices.

## Curiosity

Interest in variety and to try new textures, tastes and concepts beyond what is known inspires consumers.

## Taste preferences

Increasing availability and variety of plant-based products inspire consumers to try alternatives to their favourite foods.

## Well-being

Active reduction of animal products to make a positive impact, e.g. on climate change, animal welfare.

## Unintentional consumption

Consumers who do not deliberately aim to consume plant-based products but chose them or even by chance.

## Availability

Products become more available in regular supermarkets and the consumers' accustomed environment. Known brands now offer plant-based products.

## Habitualization & adaption

Taste preference and familiarity with organic products, consumers seeking more natural options on a more habitual basis.

## Lack of confidence

Consumers grow increasingly wary of animal food quality, particularly in the context of animal welfare and and hygiene scandals in the meat industry.

## Culture & socialization

Plant-based foods are more and more accepted these days, they have become part of the culture and identity of consumers.

## Trends & fashion

Increasing popularity and visibility in mainstream and social media drives interest in consumers to try novel plant-based foods.

## Product variety

A wide variety of products are available, in particular alternative milk drinks and meat alternatives.

## Religious reasons

Consumers avoiding (certain) animal products may opt for plant-based alternatives to add variety to their diets.

 Most important drivers  
 Other drivers

# BARRIERS

Taste, lack of choice and high price of plant-based options are crucial barriers for consumers, experts & consumers say

Even though many consumers wish to reduce their consumption of meat and dairy for different reasons, this does not automatically result in other products being placed in their shopping trolleys. Apart from personal preferences and a certain tentativeness when it comes to product novelties, there are other arguments that drive consumers away from the more sustainable plant-based options. What really drives consumers?



The study highlighted paradoxes in the perception of veganism in some countries: while Warsaw is for example one of the top three cities for vegan gastronomy, vegans are perceived by some in Poland as 'mentally disturbed'. Shifting towards the term 'plant-based' could help move away from this.

In the various countries of the survey, the words in the native language may have more nuanced connotations.



# KEY TAKE-AWAYS

Opinions of consumers and experts show the high diversity of drivers, barriers and wants in the industry right now. Common denominators include:

## 1 Flexitarians: the growth segment with the highest potential:

they want to cut their meat and dairy intake: estimated at 10 to 30 % of Europeans today, the flexitarian is a profile that is hard to pinpoint exactly, also differing within given EU countries. Overall, it can be better reached with plant-based products close in taste and texture to the animal original.

## 2 Trust &

**transparency:** having a national definition and credible labels for vegan and plant-foods by institutions that consumers trust can help build trust for both market actors and reduce confusion for consumers. Additionally, communication and marketing should be honest and realistic, without exaggerating or sugar-coating facts.

## 3 Avoid ideology:

veganism and vegan foods still have negative connotations in the countries studied. Plant-based food is more neutral but the term needs to be properly defined and the benefits linked to health, climate, water usage, CO2 emissions and sourcing need to be better communicated.

## 4 Invest in research:

companies should now be working on improved taste, culinary selection and simpler ingredients. Not only realistic alternatives are sought-after, but also product novelties. Wide selection of products is now more important for consumers than ever. More simple recipes with plant-based ingredients are in high demand.

## 5 Focus on

**sustainability:** perils of global wellbeing and climate change are major disruptors in the food sector. Consumers pay increasing attention to products' ecological footprint, therefore companies will benefit from taking up this issue.

## 6 Innovate & broaden portfolios:

Consumers wish for practical middle ways and appreciate company communications which show that incorporating plant-based products into one's diet is both easy and convenient.

# THE FUTURE IS PLANT-BASED

A qualitative study funded by EIT Food and conducted by

**Contact**

Dr Beate Gebhardt,  
University of Hohenheim, Department of Agricultural Markets  
Beate.Gebhardt@uni-hohenheim.de



**Contact**

Klaus Hadwiger,  
University of Hohenheim, Hohenheim Research Center for Bioeconomy (Activity Leader)  
Klaus.hadwiger@uni-hohenheim.de



This activity has received funding from EIT Food, the innovation community on Food of the European Institute of Innovation and Technology (EIT), a body of the EU, under the Horizon 2020, the EU Framework Programme for Research and Innovation

With contribution of  **proveg**  
international