smart protein

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Evolving appetites: an in-depth look at European attitudes towards plant-based eating

A follow-up to the 2021 survey report 'What Consumers Want'

November 2023

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862957.

Content

Executive Summary

This latest Smart Protein consumer research sheds light on an ongoing shift in European eating habits. Notably, **51% of European meat consumers report reducing their annual meat intake, up from 46% in 2021**. Health emerges as the most influential factor (cited by 47% of respondents) driving this change. The largest reductions in meat consumption are seen in Italy, Germany, and France, where more than 58% of consumers report having reduced their meat consumption. However, our findings also highlight a significant gap between intention and action and suggest that respondents do not have an accurate idea of their own levels of meat consumption.

In terms of dietary lifestyles, 27% of Europeans identify as flexitarians,[1] that is 3% less flexitarians than in 2021. **Germany takes the lead in 2023, with 40% of individuals identifying as flexitarian**.

When looking at which plant-based foods are being embraced by European consumers, the data suggests that legumes are the most popular option. **57% of respondents incorporate legumes[2] into their diets at least once a week, while 28% regularly eat plant-based alternatives[3] and 17% regularly eat legume-based alternatives**.[4] Furthermore, 43% of respondents plan to increase their consumption and purchase of any of these products. But, it's important that they are tasty (53%), healthy (46%), and affordable (45%).

51% of European meat consumers report reducing their annual meat intake, up from 46% in 2021.

Looking at perceptions around trust, **46% of Europeans said that they trust plant-based alternatives more than they did three years ago**. This is mostly because they are considered safe to consume, accurately labelled, and reliable. When compared to other sources of protein, plant-based protein is perceived as the most trustworthy core ingredient for plant-based alternatives, followed by cultivated protein (e.g. cultivated meat, cultivated dairy, etc.) and fungi (e.g. mushroom, mycelium, yeast).

Regarding the influence of digital media on consumer perceptions, **45% of social-media users trust online sources such as search engines and health and nutrition-society websites the most** when looking for accurate information about plant-based food.

1 Definition used in survey: I sometimes eat meat, but I am trying to reduce my meat consumption and often choose plant-based foods instead.
2 Definition used in survey: Legumes are sources of plant-based protein, and include lentils, beans, soya, and chickpeas (dried, canned, frozen).
3 Definition used in survey: Plant-based food alternatives are products made solely from plant-based ingredients and are developed to resemble conventional animal-based foods such as meat or dairy. (Examples include soya burgers and soya milk).
4 Definition used in survey: Legume-based foods are made solely from the seeds of legumes, and include tofu, tempeh, falafel, hummus, and soya-based products.

The study also reflects an urgent need for policy action in Europe's food sector. **A substantial 63% of European consumers would like to see more transparency in product certification**, while 62% support tax-free food products aligned with environmental and health values. Italy, Spain, and the UK stand out with strong support for policy measures aimed at shifting the population towards more plant-based eating.

In summary, the data suggests a broad and ongoing shift across Europe towards more plant-based eating. However, European eating habits on the whole remain unsustainable and a multifaceted strategy is needed to further accelerate this shift. This strategy should include emphasising the long-term health benefits of plant-based diets, tailoring messaging for diverse generations and regions, implementing transparent and trustworthy labelling schemes, and, most crucially, ensuring that plant-based products are easily accessible. It's also important to responsibly leverage the influence of social media in guiding consumer purchase decisions. Finally, the current momentum of cultivated foods in Europe presents an opportunity to capitalise on consumers' demand for healthier and more sustainable foods. By combining these approaches, the shift to plant-based eating can be further accelerated, contributing to a healthier and more sustainable future.

"Following on from the widely cited 2021 Smart Protein report *What Consumers Want*, this second round of research found promising changes in European consumer preferences and behaviours over the last two years. The new report provides a deeper understanding of the long-term potential of the plant-based sector and offers practical recommendations so that further growth can be sustained.

JASMIJN DE BOO

CEO of ProVeg International

Introduction

Over the past few years, there has been a remarkable surge in the popularity of plant-based food products in Europe mostly driven by consumers embracing sustainable, ethical, and health-conscious dietary choices.[5] Europe's plant-based food sector has grown significantly in recent years, with both total sales value and unit sales spiking by 21% between 2020 and 2022, with the sector currently valued at €5.8 billion.[6] The future looks even more promising, with a predicted annual growth rate of nearly 9% over the next five years.[7] Moreover, by 2035, one in every ten servings of meat, eggs, dairy, and seafood worldwide is expected to be in the form of alternative protein.[8]

Given the escalating demand for plant-based foods in Europe, the need for innovative and appealing plant-based food choices is self-evident. Building on the research conducted two years ago, *What Consumers Want*, the primary objective of this follow-up study is to track and analyse whether the trends that we identified in 2021 have persisted, intensified, plateaued, or fallen. By looking at changes in consumer preferences and behaviours over the last two years, this report aims to gain a deeper understanding of the long-term potential of the plant-based sector and the extent to which further growth can be sustained.

The results of this follow-up study provide useful insights into Europe's constantly evolving plant-based food sector. It is encouraging to observe that the positive trajectory of the acceptance of plant-based foods has continued, with interesting shifts taking place across various demographics and regions. As we move forward towards a more sustainable future, staying carefully attuned to consumer preferences and market dynamics will be crucial in order to harness the full potential of the plant-based food sector and its benefits for the environment and human health.

5 Alcorta, A., Porta, A., Tárrega, A., Alvarez, M. D., & Vaquero, M. P. (2021). Foods for plant-based diets: Challenges and innovations. Foods, 10(2), 293.
6 GFI (2022): Market insights on European plant-based sales 2020-2022 https://gfieurope.org/market-insights-on-european-plant-based-sales-2020-2022/
7 Research and Markets (2023): Europe Plant-Based Food and Beverage Market - Growth, Trends and Forecasts (2023-2028) https://www.researchandmarkets.com/reports/5221471/europe-plant-based-food-and-beverage-market?utm_source=BW&utm_medium=PressRelease&utm_code=ln29h2&utm_campaign=1664023+-+Europe+Plant-Based+Food+and+Beverage+Market+is+Projected+to+Grow+at+a+CAGR+of+over+8.87%25+During+2022-2027&utm_exec=shbe20prd
8 BCG, Blue Horizon Corporation (2023): Alternative-Protein Market to Reach at Least $290 Billion by 2035 https://www.bcg.com/press/23march2021-alternative-protein-market-reach-290-billion-by-2035

Survey methodology

The results of this report are based on a twenty-minute online survey of 7,500 participants (with around 750 respondents per country, and all respondents over the age of 18). The survey was conducted in June 2023, and is a follow-up to a previous survey conducted in June 2021, the results of which are used in this report in order to compare changes in behaviours and attitudes over the last two years. In both surveys, the countries included were Austria, Denmark, France, Germany, Italy, the Netherlands, Poland, Romania, Spain, and the UK. The survey was completed by respondents recruited by Innova Market Insights. Innova's Consumer Insights has a strict data quality and management protocol in place. Their panel partners are ISO 20252 and ISO 26362 certified and uphold strict quality checks on their respondent databases.

We collected data on several demographics, including age, gender, and educational background, and set quotas for age and gender for all ten countries in order to ensure that the sample was representative of the European population as a whole in terms of these two variables. Because many of the survey questions relate to purchasing decisions, we asked people to fill out the questionnaire only if they were fully or partly responsible for the household's grocery shopping.

Following the research methodology deployed in 2021, the 2023 sample consisted predominantly of people on a mixed diet but also included flexitarians, pescatarians, vegetarians, and vegans. It's important to note that we provided clear definitions for each dietary lifestyle, and respondents were asked to choose the one that best aligned with their preferences. Our analysis is based on respondents' self-identification with each dietary lifestyle, which may not always perfectly match the official definitions for each category. As a result, we advise approaching the interpretation of these results with caution.

The countries included were Austria, Denmark, France, Germany, Italy, the Netherlands, Poland, Romania, Spain, and the UK.

Looking back at the 2021 results

The first iteration of the survey suggested that nearly half of European consumers had reduced their meat consumption during the previous 12 months, and three-quarters of them identified as flexitarian. Dutch, Romanian, and German consumers emerged as the biggest reducers.

When looking at consumer acceptance of plant-based products, primary barriers to widespread adoption included limited availability of diverse plant-based food options, concerns about affordability, a lack of accessible information, and the influence of social interactions. Nevertheless, a significant portion of European consumers expressed a strong trust in plant-based food products, particularly those featuring familiar proteins such as plant-based options and alternatives sourced from fungi or algae. Respondents also trusted products containing ingredients such as potatoes and rice, lentils, almonds, and chickpeas.

In terms of the role that digital media played at the time, search engines and reputable health and nutrition-society websites emerged as the primary platforms used by consumers to gather information on plant-based foods, and were widely regarded as highly credible sources of information.

These findings not only highlighted the immense potential for plant-based foods in Europe but also served as a compelling call to action for all those involved in the industry. The continuously rising consumer demand for alternative proteins is a strong indicator of a flourishing market with ample room for expansion.

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Chapter I

Exploring meat reduction and its motivations

Current market outlook on European meat consumption

Recent data on European meat consumption shows a declining trend.[9] It is estimated that between 2021 and 2023, pork and beef consumption decreased by about 2.8% and 0.8%, respectively. In 2023, the average European is projected to consume approximately 40 kg annually when both pork and beef are taken into account, which translates to about 770 g per week. **However, this current level of meat consumption in Europe still significantly exceeds the recommendations provided by various national dietary guidelines**,[10] which typically advise a weekly maximum intake of red meat between 300 and 500 grams or consumption up to three times per week.

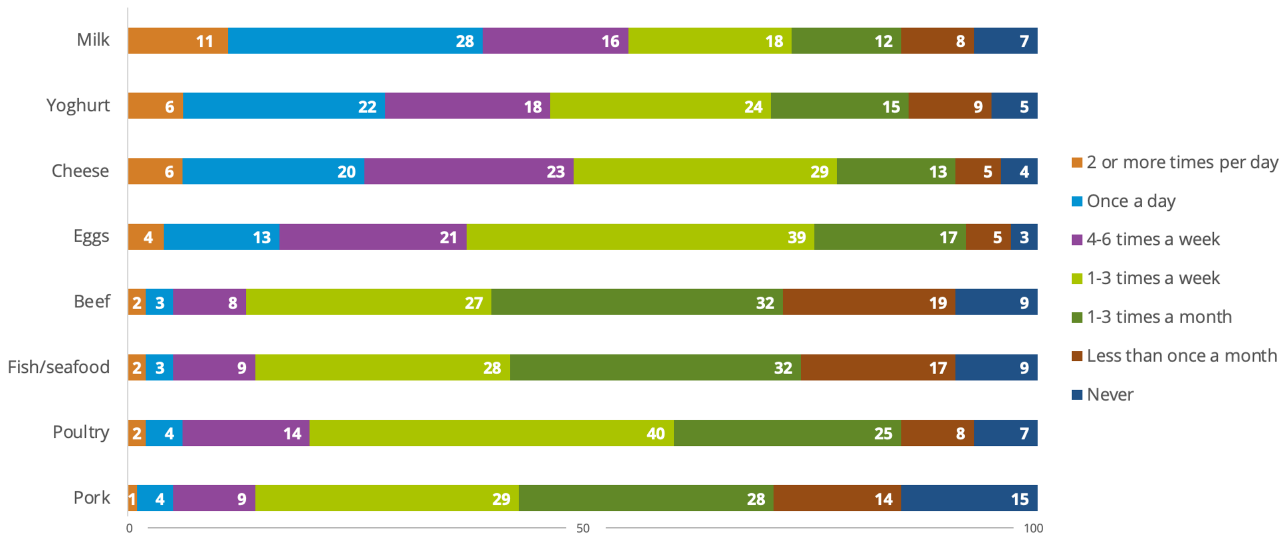
Based on these findings alone, it is conceivable that **if European countries had adhered to their current national dietary guidelines, the detrimental impact on individual health and the environment could have been reduced by now**. Extensive scientific research has highlighted the detrimental impact of high meat consumption on both individual health and the environment. Livestock production is a major contributor to total greenhouse gas emissions and utilises a disproportionate share of the Earth's limited resources. Notably, in 2015, the International Agency for Research on Cancer classified red meat as a probable carcinogen for humans, while processed meat was classified as carcinogenic to humans.[11]

9 OECD/FAO (2023): OECD-FAO Agricultural Outlook 2023-2032. OECD Publishing. Paris. https://doi.org/10.1787/08801ab7-en. And OECD.stat (2023): OECD-FAO Agricultural Outlook 2023-2032. Available at: https://stats.oecd.org/ [26.10.2023]

10 European commission (August 2023): Food-Based Dietary Guidelines in Europe https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/topic/food-based-dietary-guidelines-europe_en

11 Meat consumption: Which are the current global risks? A review of recent (2010–2020) evidence. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7256495/

FREQUENCY OF CONSUMPTION OF ANIMAL PRODUCTS (TOTAL SAMPLE, SELF-REPORT, PERCENTAGES)



Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Total: n= 7500

According to respondents' self-reported consumption levels, **dairy products and eggs are both daily and weekly staples, with more than 70% of European respondents including them in their meals at least once a week**. Milk is consumed at least 4 times per week by 54% of respondents, followed by cheese (49%), yoghurt (46%), and eggs (37%).

Poultry is the most commonly consumed animal meat, with 60% of European consumers including it in their meals at least once a week, while about 40% of Europeans say that they consume fish, beef, or pork at least once a week.

Many Europeans may underestimate their actual meat consumption.

It's interesting to note that only around 14% of Europeans say that they eat pork or beef more than three times a week, given that current market data shows that the average European consumes around 700 grams per week. This suggests that **many Europeans may underestimate their actual meat consumption or eat particularly large portions when they do so. Regardless, there is an urgent need to educate consumers about the impact of meat production and consumption**. Such education is crucial, given the detrimental effects of excessive meat consumption on both health and the environment and will help individuals to make more informed choices about their food choices. When consumers gain a clearer understanding of how often they consume meat, they can become not only more motivated to reduce their meat intake but also better equipped for effective change, ultimately leading to the adoption of healthier lifestyles.

FREQUENCY OF CONSUMPTION OF ANIMAL PRODUCTS (BY COUNTRY, SELF-REPORT PERCENTAGES, MORE THAN 3 TIMES PER WEEK, BEEF, PORK, POULTRY, FISH)

% of people who...	Eats Beef + 3 times per week	Eats Pork + 3 times per week	Eats Poultry + 3 times per week	Eats Fish +3 times per week	Intent to reduce total meat consumption
Total	**13%**	**14%**	**20%**	**14%**	**51%**
Denmark	24%	19%	26%	20%	47%
France	16%	14%	23%	14%	57%
Netherlands	15%	14%	18%	13%	49%
UK	12%	8%	20%	14%	48%
Italy	12%	11%	17%	12%	59%
Poland	11%	17%	26%	15%	48%
Spain	11%	13%	16%	13%	48%
Germany	10%	14%	18%	12%	59%
Austria	10%	11%	14%	9%	51%
Romania	8%	20%	23%	13%	48%

Q7: Which statement best describes how frequently you consume the following food products? (+3 times per week) | Single choice | Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Overall, a larger number of consumers in France, the Netherlands, Denmark, and Poland exhibit awareness of their high levels of animal-based product consumption (more than 3 times per week) compared to consumers in other countries. Conversely, fewer consumers in the UK, Austria, Italy, Spain, and Germany acknowledge their high levels of consumption in comparison to the average European country. This highlights regional variations in the extent to which consumers underestimate their animal-based consumption.

However, **regardless of the region, there is a need for educational campaigns about the frequency and impact of excessive meat consumption**, as the ideal scenario, according to the European Commission, would be for all Europeans to consume red meats like beef and pork less than 3 times per week. With established guidelines, **institutions have a crucial role to play in leading by example through their procurement practices**. Government offices, schools, hospitals, and even workplaces can prioritise plant-based meals. This will not only promote healthier dietary choices but will also contribute to normalising meals with reduced meat content.

SELF-REPORTED MEAT CONSUMPTION, COMPARED TO A YEAR AGO
(TOTAL MEAT EATERS, 2023 AND 2021, PERCENTAGES)

	2023	2021
A lot less	15	14
Slightly less	36	32
No change	39	48
Slightly more	7	5
A lot more	2	1

Q8: Compared to a year ago, how much meat (e.g. beef, pork, chicken) are you eating at the moment? | Single choice | Slightly less/ more: less/more than 50% in volume, A lot less/more: more/less than 50% in volume | Total 2023 n= 6679 | Total 2021 n=6882 | Highlighted in green: significantly higher at a 95% confidence interval

Despite high levels of red meat consumption in Europe as demonstrated above, in 2023, 51% of European consumers reported having reduced their meat consumption (e.g., beef, pork, chicken) compared to the previous year. Among them, 36% made slight reductions (less than 50%), and 15% made substantial reductions (more than 50%). However, still 9% of people reported an increase in their annual meat consumption overall.

Compared to the 2021 research data, the share of individuals reducing their yearly meat intake (a lot less and slightly less) has increased from 46% to 51%, while the percentage of people who state 'no change' in meat consumption has decreased from 48% to 39%. Still, the number of people who are eating slightly more meat has increased from 6% to 9%.

SELF-REPORTED ANNUAL MEAT REDUCTION (TOTAL MEAT EATERS, BY COUNTRY, PERCENTAGES)

Percentage of consumers who have reduced their meat consumption

(e.g. beef, pork, chicken) (a lot less + slightly less)

Sample total	**51**
Italy	59
Germany	59
France	57
Austria	51
Netherlands	49
Poland	48
Spain	48
Romania	48
UK	48
Denmark	48

Q8: Compared to a year ago, how much meat (e.g. beef, pork, chicken) are you eating at the moment? | Single choice | Total Reduction: Slightly less: less than 50% in volume + A lot less: More than 50% in volume | Total 2023 n= 6679 | Austria n=639 | Denmark n=649 | France n=682 | Germany n=639 | Italy n=688 | Netherlands n=663 | Poland n=675 | Romania n=695 | Spain n=699 | UK n=650

Across countries, **Italy, Germany, and France lead the way in terms of people who report reducing their meat consumption compared to one year ago, with 59% of respondents in each of these countries**. Conversely, Poland, Spain, Romania, the UK, and Denmark have a lower percentage of consumers reducing their annual meat intake, although still showing a large amount of consumers (47%) in each of these countries who are reducing their meat consumption.

It's interesting to note that reporting a reduction in annual meat consumption varies across countries and may be influenced by consumers' awareness of their actual meat intake. For instance, France stands out with a relatively higher number of respondents acknowledging their high meat consumption (15% report eating beef or pork more than 3 times per week, which is 2% above the average), while also expressing a desire to reduce it (58%, 7% more than the average). In contrast, Spain has fewer consumers acknowledging their high meat consumption (11% report eating beef or pork more than 3 times per week, 2% below the average) and shows less motivation to make a change (48%, 3% below the average).

Health is the primary motivator for reducing meat consumption overall (47%), followed by animal welfare (29%) and the environment (26%).

MOTIVATIONS TO REDUCE MEAT OR DAIRY PRODUCTS (TOTAL MEAT REDUCERS, PERCENTAGES)

Health	**47**
Animal welfare	**29**
Environment	**26**
Taste	15
Concerns over antibiotics	15
Other	12
My social environment	10
Major outbreaks of animal-to-human diseases (e.g. COVID-19)	9

Q10: Which of the following reasons best describes why you have chosen to decrease your consumption of meat or dairy products? | Multiple choice | Total: n= 3442

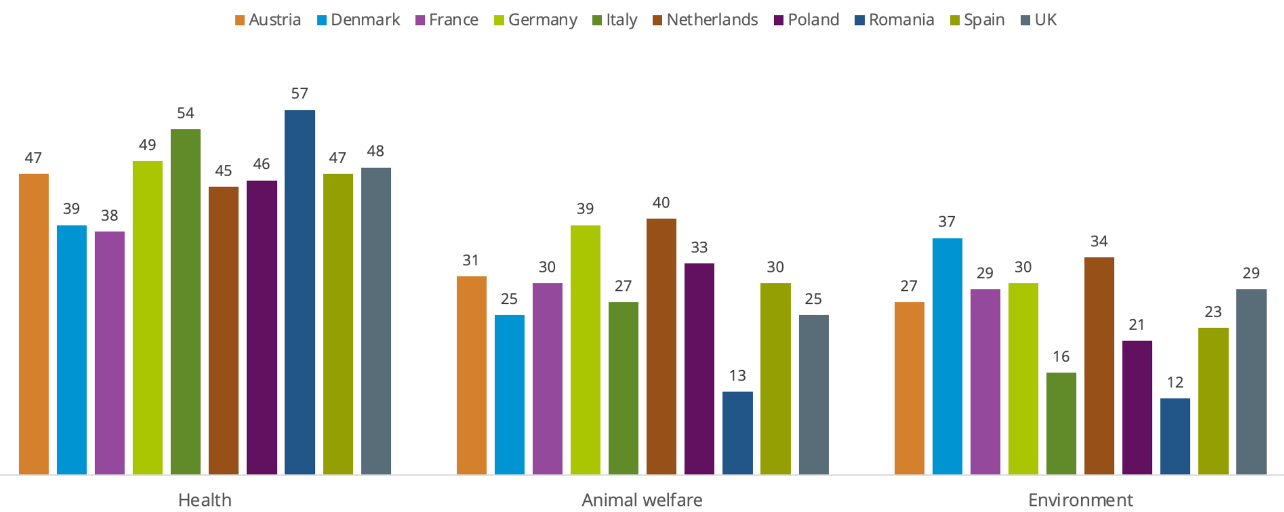
Given that a considerable portion of European consumers associate health with reducing meat consumption, food innovation can serve as a platform to promote healthier dietary lifestyles. **According to the World Health Organization, promoting a healthy food environment, encompassing food systems that encourage diversified, balanced, and healthy diets, requires collaboration among various sectors and stakeholders, including government, public, and private sectors**.[12]

[12] WHO (2020): Healthy diet https://www.who.int/news-room/fact-sheets/detail/healthy-diet

Given that almost one-third of Europeans are reducing their animal consumption due to animal welfare concerns, it's important to note that **adopting a plant-based diet for just six months is estimated to save approximately 180 animal lives**.[13] This highlights the significant impact of plant-based diets in addressing consumers' concerns about animal welfare.

Simultaneously, the fact that many European consumers are eager to reduce their meat consumption for environmental reasons, presents an opportunity to not only align with consumer preferences for more sustainable products but also to make strategic investments. Interestingly, the **alternative-protein sector is estimated to deliver the most significant CO2e (carbon dioxide equivalent) savings per dollar of investment compared to other sectors**.[14] This suggests that businesses investing in this sector can not only cater to consumer demands but also distinguish themselves through circular investments.

TOP 3 MOTIVATIONS TO REDUCE MEAT OR DAIRY PRODUCTS (PERCENTAGE OF TOTAL MEAT REDUCERS, BY COUNTRY)



Q10: Which of the following reasons best describes why you have chosen to decrease your consumption of meat or dairy products? | Multiple choice| Total: n= 3442 | Austria n=331 | Denmark n=311 | France n=393 | Germany n=376 | Italy n=404 | Netherlands n=321 | Poland n=326 | Romania n=336 | Spain n=334 | UK n=31

Although health is the most prevalent reason for European consumers to decrease meat and dairy consumption overall (47%), its prioritisation varies across countries. For instance, health concerns are most prevalent in Romania and Italy, with 57% and 54% of consumers agreeing, respectively. In contrast, France and Denmark exhibit lower levels of health-related concerns regarding the reduction of meat or dairy, with 38% and 39% of consumer agreement, respectively.

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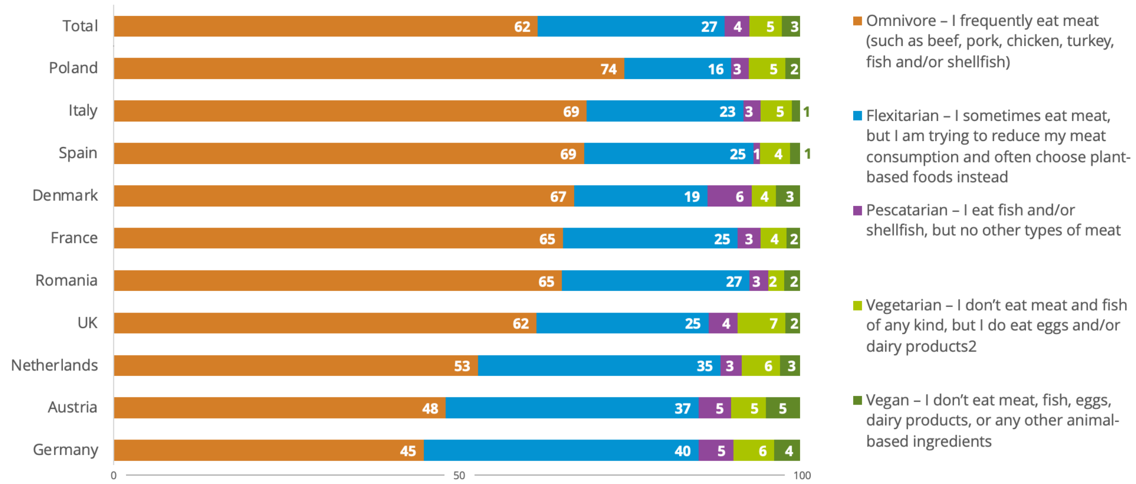
13 HOW MUCH HAVE YOU SAVED? (2023) https://thevegancalculator.com/#calculator
14 GFI (2023): A deeper dive into alternative protein investments in 2022: The case for optimism. https://gfi.org/blog/alternative-protein-investments-update-and-outlook/

In terms of animal welfare, which functions as the second-most important driver for reducing meat intake across Europe (29%, on average), the Netherlands and Germany stand out, with 40% and 39%, respectively, of consumers mentioning it.

Additionally, when considering the environmental benefits of meat reduction (26%, on average), Denmark and the Netherlands lead the way at 37% and 34% respectively.

"Other" motives are more prominent in France and the UK at 21% and 19%, respectively. Price might fall into the category of "other factors", as according to recent studies, the almost unprecedented rise in prices of meat and dairy staples have forced consumers to curtail their consumption of such products.[15] Consequently, consumers have been forced to find ways to economise, such as buying less, choosing more affordable brands, and shopping at budget-friendly stores, particularly in these regions.

DIETARY LIFESTYLE BY COUNTRY (TOTAL SAMPLE, PERCENTAGES)[16]



Q3: Which category best describes your current dietary lifestyle? | Single selection Q4: How long have you been following your current dietary lifestyle?| Single choice | Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Sixty-two percent of European consumers identify as omnivores, while 27% identify as flexitarians, being the second-largest group in the countries surveyed. After flexitarians, 5% of total European consumers are vegetarians, followed by 4% pescatarian and 3% vegans.

The largest flexitarian populations are found in Germany (40%) and Austria (37%), where being an omnivore is no longer the norm. The Netherlands follows with 35% of consumers identifying as flexitarians. In contrast, Poland, France, and Italy have smaller proportions of flexitarians, with 16%, 25%, and 23%, respectively.

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[15] Eshe Nelson (2023): Why Are Food Prices So High in Europe?European consumers cut back on food costs to cope with shortages and rising prices. https://www.nytimes.com/2023/05/30/business/europe-food-prices-inflation.html

[16] The analysis made by dietary lifestyles is based on the respondents' self-identification, rather than by strictly following the official definitions of each dietary lifestyle. This approach was adopted to ensure the results align as closely as possible with real-world behaviours and avoid the creation of artificial or unrealistic outcomes.

Germany's success in promoting plant-based products can be attributed to its multifaceted approach, which includes integrating them into retail product expansion strategies, implementing them in schools, featuring them in cultural events, and actively addressing consumer demand for more affordable options.[17,18,19] As a result, Germany has the biggest sales in plant-based retail[20] and the largest segment of consumers adopting plant-based lifestyles. This holistic approach stands as an inspiring model for other regions aiming to increase adoption and acceptance of these products.

In terms of other dietary preferences, **Austria has the highest percentage of respondents identifying as vegans (5%)**, followed by Germany (4%). The UK has the largest number of vegetarians (7%) and Denmark the largest percentage of pescatarians (5%).

DIETARY LIFESTYLES (2021 VS 2023, PERCENTAGES)

	2023	2021
Omnivore	62	61
Flexitarian	27	30
Pescatarian	4	3
Vegetarian	5	5
Vegan	3	2

Q3: Which category best describes your current dietary lifestyle? | Single selection Q4: How long have you been following your current dietary lifestyle? | Single choice | Total 2023: n= 7500 | Total 2021: n= 7559 | Highlighted in green and red: significantly different across years at a 95% confidence interval

In 2023, there are notably fewer flexitarians compared to 2021 (3% less), but there is a significant increase in the number of pescatarians and vegans across selected European countries (1% more). The increase in the number of vegans is a positive sign for the future of plant-based diets. However, given the decrease in self-identification with mainstream plant-based lifestyles (flexitarianism), it is crucial to maintain a focus on highlighting the benefits of adopting plant-based lifestyles. These benefits should be clearly aligned with consumer concerns, and the messaging should remain as approachable and appealing as possible.

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[17] Rewe (2022): Vegan einkaufen in Berlin. https://mediacenter.rewe.de/rewe-vegan-einkaufen-berlin
[18] The Guardian (2021): Berlin's university canteens go almost meat-free as students prioritise climate https://www.theguardian.com/world/2021/aug/31/berlins-university-canteens-go-almost-meat-free-as-students-prioritise-climate
[19] Vegconomist (2022): Vegan Versions of Classic Dishes to Be Offered at Oktoberfest 2022 https://vegconomist.com/fairs-and-events/vegan-oktoberfest-2022/
[20] GFI (2023): Market insights on European plant-based sales 2020-2022 https://gfieurope.org/market-insights-on-european-plant-based-sales-2020-2022/

Our research shows that there is a **minimal variation in flexitarianism across generations** (26% to 29%), indicating that the **intention to reduce meat consumption transcends generational boundaries and represents a cross-generational interest**. Gen Z stands out with the highest adoption rates of vegetarians (7%), vegans (4%), and pescatarians (5%). On the other hand, omnivores are more prevalent in the Boomer and Gen X groups, at 64%. These results suggest that there may be an opportunity for marketing and product development tailored to specific needs across age groups.

DIETARY LIFESTYLES BY GENERATIONS (TOTAL SAMPLE, PERCENTAGES)

	Boomers (1946-1964)	Gen X (1965-1980)	Millennials (1981-1996)	Gen Z (1997-2012)
Flexitarians	29	27	28	26
Omnivores	64	64	61	58
Pescatarian	3	3	3	5
Vegetarian	1	2	3	4
Vegan	3	4	5	7
Total	100	100	100	100

Q3: Which category best describes your current dietary lifestyle? | Single selection | Total: n= 7500 | Boomer n= 1013 | Gen X n=2238 | Gen Z n=1811 | Millennial n=2438 | Highlighted in green: highest score per row

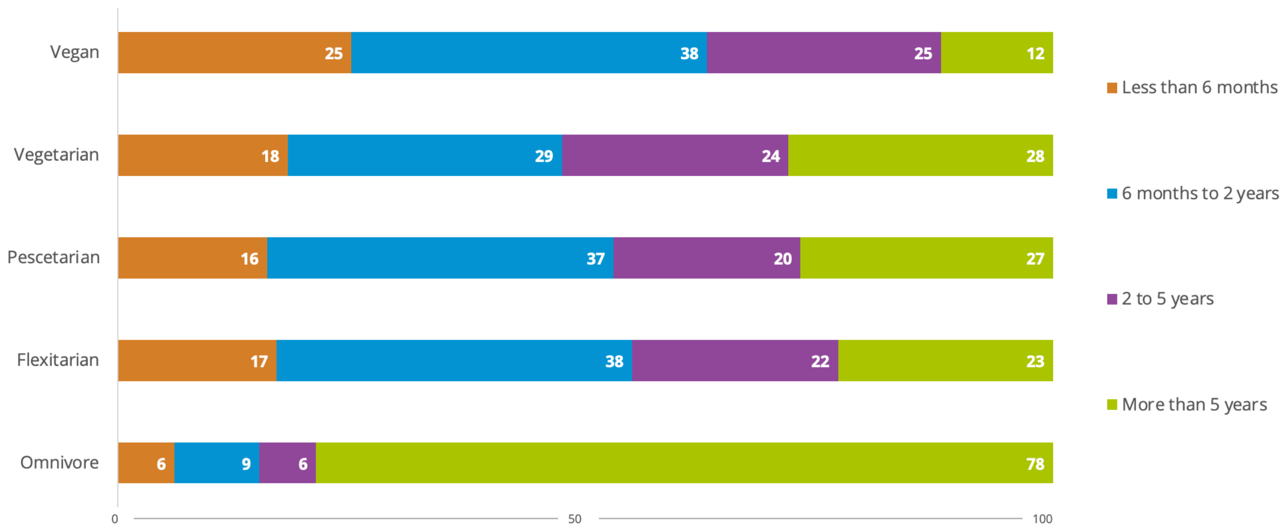
DIETARY LIFESTYLES BY GENDERS (TOTAL SAMPLE, PERCENTAGES)

	Female	Male	Diverse**
Flexitarians	31	23	43
Omnivores	58	66	26
Pescatarian	3	4	4
Vegetarian	2	3	13
Vegan	6	3	13
Total	100	100	100

**Sample size below 30, shown only for reference
Q3: Which category best describes your current dietary lifestyle? | Single selection | Total: n= 7500 | Female n=3750 | Male n=3750 | Highlighted in green: significantly higher between rows at a 95% confidence level

Flexitarianism appears to be more popular among girls and women (31%), while omnivore diets are more common among boys and men (58%). Veganism is similarly skewed by gender and is more common among women and girls (6%). Those people identifying as diverse seem to be particularly skewed in a plant-ward direction. However, further research is needed to confirm this trend since conclusions cannot be drawn from such a small sample size. Vegetarian and pescatarian diets are equally likely to be adopted by all genders.

CURRENT DURATION OF DIETARY LIFESTYLE (TOTAL SAMPLE, PERCENTAGES)



Q4: How long have you been following your current dietary lifestyle? | Single choice | Total: n= 7500 |

While it's no surprise that omnivores have been following their diets for many years, it's interesting to note that vegetarians have been committed to their diet for the longest of those following an alternative dietary lifestyle, with 28% having been vegetarian for more than five years and an additional 24% for two to five years. Furthemore, **45% of flexitarians have already spent more than two years being committed to their diet**. Most vegans, on the other hand, have been following the dietary lifestyle for less than six months and up to two years (63%).

45% of flexitarians have already spent more than two years being committed to their diet.

Chapter II

Exploring the transition towards a plant-based lifestyle

According to recent research studies,[21] it's widely acknowledged that individuals may find themselves at various stages of readiness and motivation when contemplating changes to their dietary habits. Therefore, **gaining insight into the psychological stages that people navigate during dietary lifestyle changes enables the development of personalised support systems, targeted interventions, and more effective goal-setting strategies**.

The transition stages mentioned below (outsider, denier, reachable, considerer, committed, won, flight risk, lapsed) are derived from the Transtheoretical Model (TTM), which is one of the most accessible frameworks for understanding human behaviour.[22]

DIETARY-TRANSITION STAGES (TOTAL SAMPLE, PERCENTAGES)

Outsiders
27%
"No one in my social environment (including myself) eats plant-based meals or thinks about adopting a plant-based diet".

Deniers
17%
"Some people in my social environment think I should eat mostly plant-based meals, but I don't want to change".

Reachable
27%
"I realize the importance of a plant-based diet, but I'm not sure that I'm ready to change."

Considerers
8%
"I plan to start a plant-based diet in the next six months."

Committed
7%
"I have taken definite actions to adopt a plant-based diet in the past six months."

Won
7%
"I feel confident about maintaining my plant-based diet for six months or longer."

Flight Risk
4%
"I am working to maintain a plant-based diet but it is getting more."

Lapsed
4%
"I had a plant-based diet but I lost interest/motivation."

Q5: Which of the following phrases best describes your current dietary habits or situation? | Single choice | Total: n= 7500 |

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[21] Prochaska JO, Velicer WF. The transtheoretical model of health behaviour change. Am J Health Promot. 1997 Sep-Oct;12(1):38-48. doi: 10.4278/0890-1171-12.1.38. PMID: 10170434.

[22] Raihan N, Cogburn M. Stages of Change Theory. [Updated 2023 Mar 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK556005/

Looking at the picture on the previous page, it is worth noting that the largest segments of European consumers are found within the Outsider (27%) and the Reachable (27%) segments. Also of interest, is the fact that 17% of respondents indicated that some people in their social environment encourage them to eat mostly plant-based meals but they themselves do not want to change.

In addition, about 8% of Europeans are either committed to, planning to take action toward, or already feel confident about adopting and maintaining a plant-based diet over the long term. It's encouraging to note that only 4% of the respondents said that they found it challenging to maintain a long-term plant-based diet or have lost interest in doing so.

DIETARY-TRANSITION STAGES (BY DEMOGRAPHICS, OUTSIDERS AND REACHABLE PERCENTAGES)

	Outsiders	Reachable
Flexitarians	16	30
Omnivores	**34**	28
Boomers (1946- 1964)	**37**	27
Gen X (1965-1980)	30	27
Gen Z (1997-2012)	21	28
Millennials (1981-1996)	24	28
Female	26	29
Male	28	26

Q5: Which of the following phrases best describes your current dietary habits or situation? | Single choice | Total: n= 7500 | Highlighted in green: significant difference at 95% confidence level per demographic

Omnivores have significantly less exposure to social environments that accept plant-based lifestyles compared to flexitarians. Among different generations, boomers stand out as having the least exposure to contexts where plant-based lifestyles are adopted. This emphasises the potential importance of social acceptance in driving dietary changes in Europe. Across genders, there are no significant differences.

Associations driving plant-based alternatives: The COM- B Approach

In addition to the transtheoretical model, we conducted an in-depth analysis employing the COM-B Framework.[23] This framework categorises consumer attitudes and behaviours toward plant-based alternatives into three key components: capabilities (referring to an individual's psychological and physical ability to perform a particular behaviour); opportunities (representing the external and social factors that facilitate or hinder a specific behaviour); and motivations (relating to the individual's emotional and psychological drive to engage in the behaviour).

In summary, the data suggests that while Europeans are increasingly open to plant-based options, **there is a need to enhance physical opportunities, such as availability at points of purchase and consumption, better integrate plant-based foods into cultural contexts, and provide more educational and accessibility support to facilitate a smoother transition toward plant-based lifestyles**. These efforts can help meet consumer expectations for healthier and more sustainable products while driving the adoption of plant-based alternatives.

CAPABILITIES:

Physical capabilities - Total Sample (%) - Top 3	**41**
I find it easy to locate plant-based food alternatives in (online) supermarkets and stores	48
I find it easy to get reliable information about plant-based food alternatives	44
I find it easy to locate plant-based food alternatives in restaurants	37
Psychological capabilities - Total Sample (%) - Top 3	**47**
I know the benefits of consuming plant-based food alternatives	54
I find it easy to prepare a plant-based meal	46
I find it easy to come up with meals that are plant-based	44

Q23/Q24/Q25 "Please indicate your agreement to the following statements regarding eating and cooking/your food consumption/regarding food consumption and cooking." | Single choice (7 point scale) | Highlighted in green: highest score % per segment

[23] Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation science, 6(1), 1-12.

European consumers demonstrate stronger psychological capabilities (47%), like understanding the benefits of plant-based alternatives (54%), than physical capabilities (41%), such as conveniently locating these products (36%) when it comes to consuming plant-based alternatives. These findings highlight that consumers have a good awareness of plant-based food benefits, but need improved product accessibility and visibility at points of purchase in order to feel more capable of adopting a plant-based lifestyle.

OPPORTUNITIES:

Physical opportunities - Total Sample (%) - Top 3	**44**
...are on sale often enough	**59**
...are easily available (e.g. in supermarkets, restaurants)	47
...are located in easy-to-access places	47
Social opportunities - Total Sample (%) - Top 3	**35**
People who are important to me would approve if I ate plant-based food alternatives most of the time	**40**
People in my environment eat more and more plant-based food alternatives	37
People who are important to me think I should eat plant-based food alternatives most of the time	32

Q23/Q24/Q25 "Please indicate your agreement to the following statements regarding eating and cooking/your food consumption/ regarding food consumption and cooking." | Single choice (7 point scale) | Highlighted in green: highest score % per segment

In the realm of opportunities, physical factors (44%), such as the availability of plant-based alternatives on sale or promotion, play a more significant role in driving the consumption of plant-based products compared to social factors (35%), such as the deep integration of plant-based diets into their culture.

MOTIVATIONS:

Reflective processing Total Sample (%) - Top 3	**49**
Eating plant-based food alternatives is good for my health	**55**
Eating plant-based food alternatives will reduce negative effects on the environment	54
Eating plant-based food alternatives will help me to lose or maintain weight	46
Automatic processing Total Sample (%) - Top 3	**39**
Eating plant-based food alternatives is something that is natural for me to do	**41**
Eating plant-based food alternatives is something that I do without thinking	38
Eating plant-based food alternatives is something that I do automatically	37

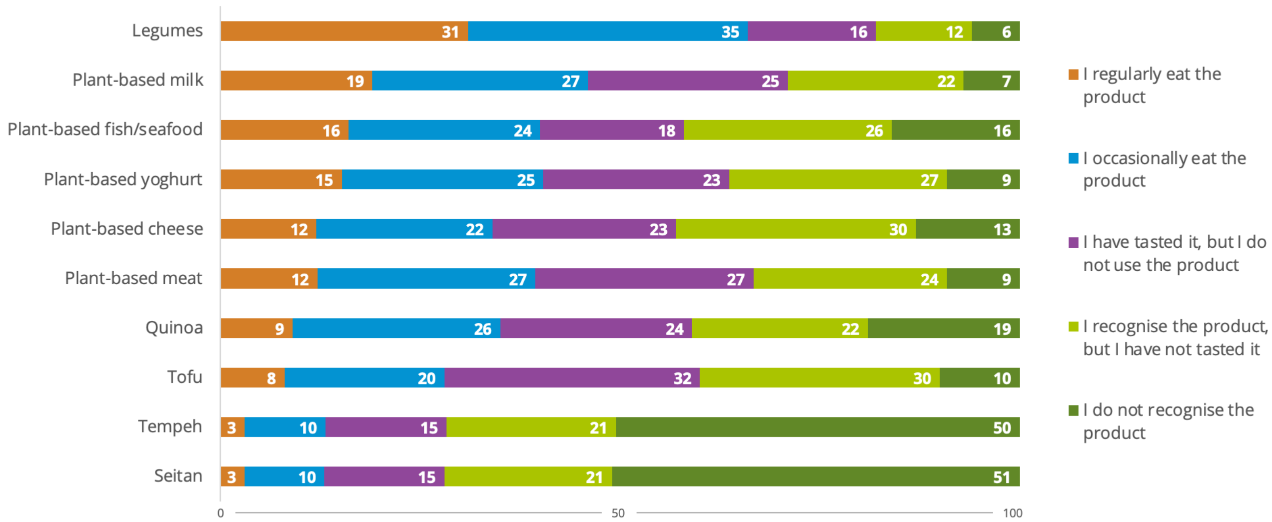
Q23/Q24/Q25 "Please indicate your agreement to the following statements regarding eating and cooking/your food consumption/ regarding food consumption and cooking." | Single choice (7 point scale) | Highlighted in green: highest score % per segment

European consumers exhibit a higher reflective motivation (49%) to consume plant-based alternatives, which involves making thoughtful decisions due to the belief that plant-based choices are beneficial for their health or the environment, than an automatic motivation (39%), which can be characterised by making choices naturally and without much conscious reflection. This implies that consumers are more inclined to choose plant-based alternatives when they actively consider the health and environmental aspects, rather than simply adopting it as a habitual routine.

Chapter III

Understanding consumption behaviours: Plant-based food perspectives

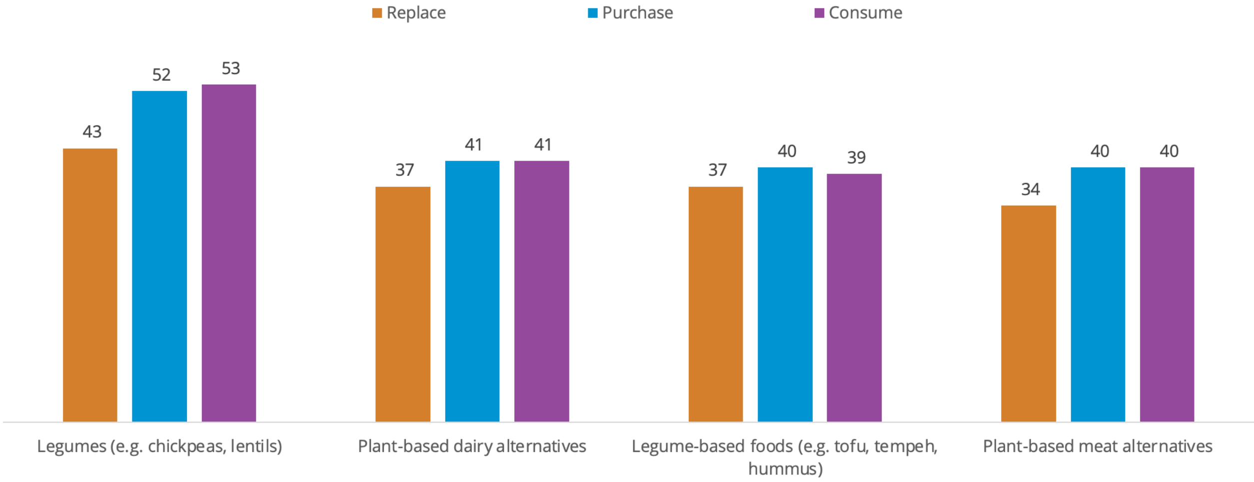
REGULAR AND OCCASIONAL CONSUMPTION OF PLANT-BASED FOODS
(TOTAL SAMPLE, SELF-REPORT PERCENTAGES)



Q6: How familiar are you with the following food products? | Single choice |Total: n= 7500

When asked in overall terms, **66% of European consumers claim to consume legumes at least occasionally (31% regularly, 35% occasionally)**. Following at visible distance, 46% claim to consume plant-based milk, 41% plant-based fish and 40% plant-based meat at least occasionally. Seitan and Tempeh show the lowest familiarity among European consumers.

INTENTION TO REPLACE AND CONSUME/PURCHASE MORE IN THE NEXT 6 MONTHS TOTAL SAMPLE
(TOTAL AGREEMENT, PERCENTAGES)



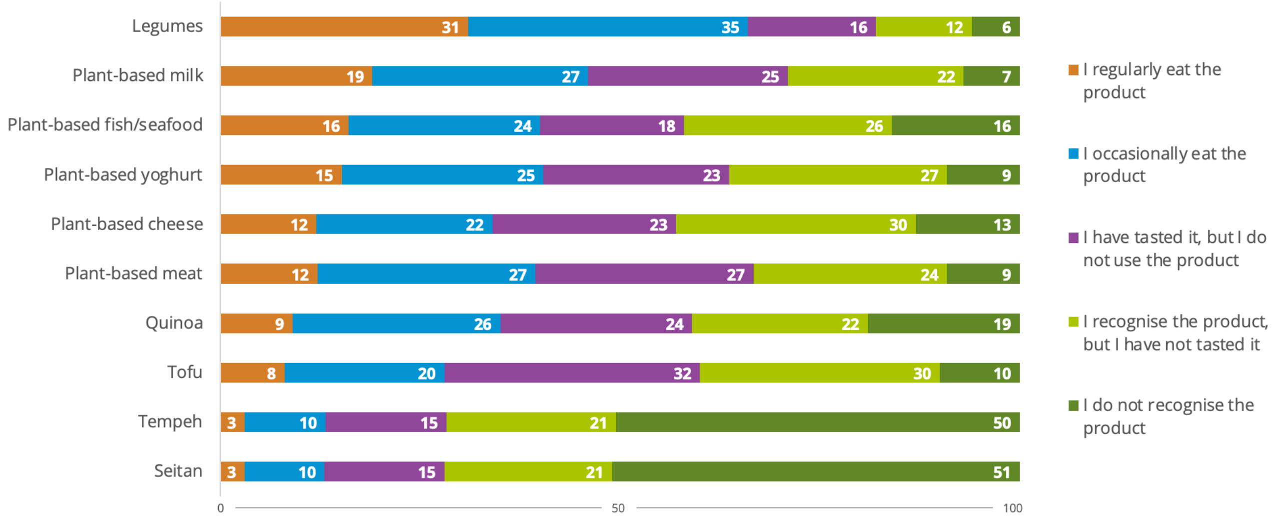
Q11/12/13: Please indicate how much you disagree or agree with each of the following statements. I intend to replace animal-based foods in my diet by eating more... / consume more ... / purchase more ... in the next 6 months. | Single choice | Total: n= 7500 |

European respondents show the highest interest in legumes, with 43% intending to replace animal-based foods with this type of foods, followedby 52% intending to increase their consumption and 53% their purchase.

Furthermore, 37% of Europeans want to replace animal-based foods with legume-based foods, and 41% want to increase their purchase and consumption of this type of food.

Lastly, conventional dairy is replaceable with plant-based dairy for 37% of Europeans. Similarly, conventional meat is replaceable for 34% of Europeans with plant-based alternatives. Additionally, **40% of Europeans express a desire to increase their purchase and consumption of plant-based alternatives over the next 6 months, further underscoring the growing acceptance of plant-based options in Europe**.

FREQUENCY OF PLANT-BASED FOOD CONSUMPTION (TOTAL SAMPLE, SELF-REPORT PERCENTAGES)



Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Total: n= 7500

Plant-based dairy: milk, cheese, and yoghurt

Plant-based milk is consumed by 12% of Europeans on a daily basis. 15% of Europeans consume it from 1 to 3 times per week, and 9% from 4 to 6 times a week. **In total, 36% of Europeans include plant-based milk in their weekly diets, marking it as the most consumed plant-based dairy product among Europeans.**

Following plant-based milk, plant-based yoghurt is consumed by 10% of Europeans on a daily basis, 14% between 1 to 3 times per week, and 9% from 4-6 times a week. **In total, 33% of Europeans include plant-based yoghurt in their weekly diets.**

Plant-based cheese is consumed by 9% of Europeans on a daily basis, 13% between 1 to 3 times per week, and 9% between 4 to 6 times per week. **In total, 31% of Europeans consume plant-based cheese on a weekly basis**, marking it as the less consumed plant-based dairy alternative.

On average, 33% of Europeans consume some form of plant-based dairy alternative on a weekly basis, indicating a significant presence of these products in European diets.

Plant-based meat: poultry, beef, pork and fish

Plant-based poultry is consumed by 5% of Europeans on a daily basis, 14% consume it between 1 to 3 times per week, and 8% between 4 to 6 times per week. **In total, 27% of Europeans consume plant-based poultry at least once a week, marking it as the most consumed plant-based meat in Europe.**

Plant-based beef is consumed by 4% of Europeans on a daily basis, 13% consume it between 1 to 3 times per week, and 7% between 4 to 6 times a week. **In total, 24% of Europeans consume plant-based beef at least one time per week.**

Plant-based pork is consumed by 4% of Europeans on a daily basis, 12% consume it between 1 to 3 times per week, and 6% between 4 to 6 times a week. **In total, 22% of Europeans consume plant-based pork at least one time per week, marking it as the least consumed plant-based meat by Europeans**.

Plant-based fish is consumed by 4% of Europeans on a daily basis, 13% consume it between 1 to 3 times per week, and 7% consume it between 4 to 6 times per week. **In total, 24% of Europeans consume plant-based fish at least once a week.**

On average, 24% of Europeans consume some sort of plant-based meat on a weekly basis.

Plant-based foods: Legumes & legume-based foods

Eleven percent of Europeans consume legumes on a daily basis, another 31% consume them between 1 to 3 times per week, and 15% consume them between 4 to 6 times per week. **In total, 57% of EU consumers eat legumes at least once a week, marking them as the most frequently consumed plant-based food among European countries**.

Quinoa is consumed by 5% of Europeans on a daily basis, 12% consume them between 1 to 3 times per week, and 7% between 4 to 6 times per week. **In total, 24% of Europeans consume quinoa at least once a week**.

Tofu is consumed by 5% of Europeans, 9% consume it between 1 to 3 times per week, and 6% consume it between 4 to 6 times per week. **In total, 20% of Europeans consume tofu at least once a week, marking it as the most consumed legume-based food product among Europeans**.

Seitan is consumed by 4% of Europeans on a daily basis, by 7% between 1 to 3 times per week, and 5% between 4 to 6 times per week. **In total, 16% of Europeans consume seitan at least once a week**.

4% of Europeans consume tempeh on a daily basis, 7% consume it between 1 to 3 times per week, and 5% consume it between 4 to 6 times per week. **In total, 16% of Europeans consume tempeh at least once a week**.

On average, 27% of Europeans consume some sort of legume-based food on a weekly basis.

PLANT-BASED DIARY & CONVENTIONAL DAIRY (2023, 2021)

Europeans that consume...	At least once a week	+/- pp compared to 2021
Plant-based milk	36	+8
Conventional milk	73	+3
Plant-based yoghourt	33	+10
Yoghourt	70	+4
Plant-based cheese	31	+11
Cheese	78	+2

Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Total: n= 7500 | +/- pp= increase/decrease in percentage point | Highlighted in green: significant change at a 95% confidence level

All plant-based dairy alternatives saw a greater increase in perceived consumption compared to conventional dairy products in 2021. This reflects the continued rise in the adoption of dairy alternatives by mainstream consumers. However, there is still a long way to go in increasing the frequency of plant-based food consumption, as more than 70% of Europeans continue to consume conventional dairy products at least once a week.

PLANT-BASED MEAT & CONVENTIONAL MEAT (2023, 2021)

Europeans that consume...	At least once a week	+/- pp compared to 2021
Plant-based poultry	27	+6
Poultry	60	+5
Plant-based beef	24	+2
Beef	40	+7
Plant-based pork	22	+3
Pork	43	+3
Plant-based fish	24	+5
Fish	42	+4

Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Total: n= 7500 | +/- pp= increase/decrease in percentage point | Highlighted in green: significant change at a 95% confidence level

Across all plant-based meats, there is also a perceived increase in weekly consumption. Europeans claim to consume more plant-based poultry and plant-based pork on a weekly basis (+6% and +5% respectively) than in 2021.

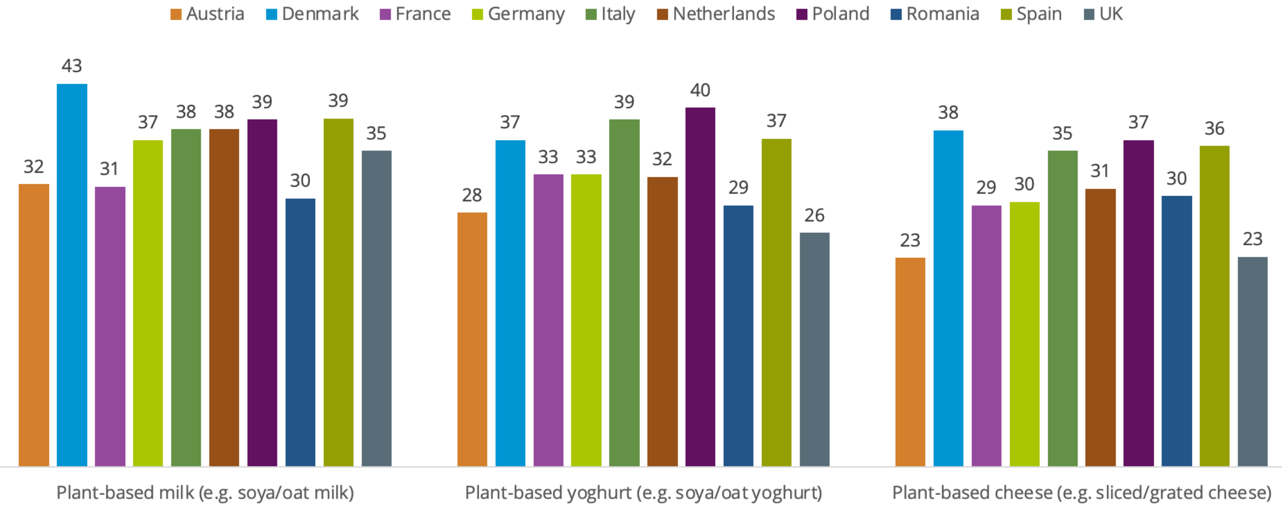
LEGUMES AND QUINOA (2023, 2021)

Europeans that consume...	At least once a week	+/- pp vs. 2021
Legumes	57	2
Quinoa	24	5

Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Total: n= 7500 | +/- pp= increase/decrease in percentage point | tofu, seitan and tempeh were no part of the 2021 research and therefore not included in the table | Highlighted in green: significant change at a 95% confidence level

Both legumes and quinoa have shown an increase in consumption compared to 2021. Notably, **quinoa experienced a more significant growth overall, increasing by a total of five percentage points, which reflects 26% growth, far surpassing the growth seen of legume consumption, which increased by two percentage points**.

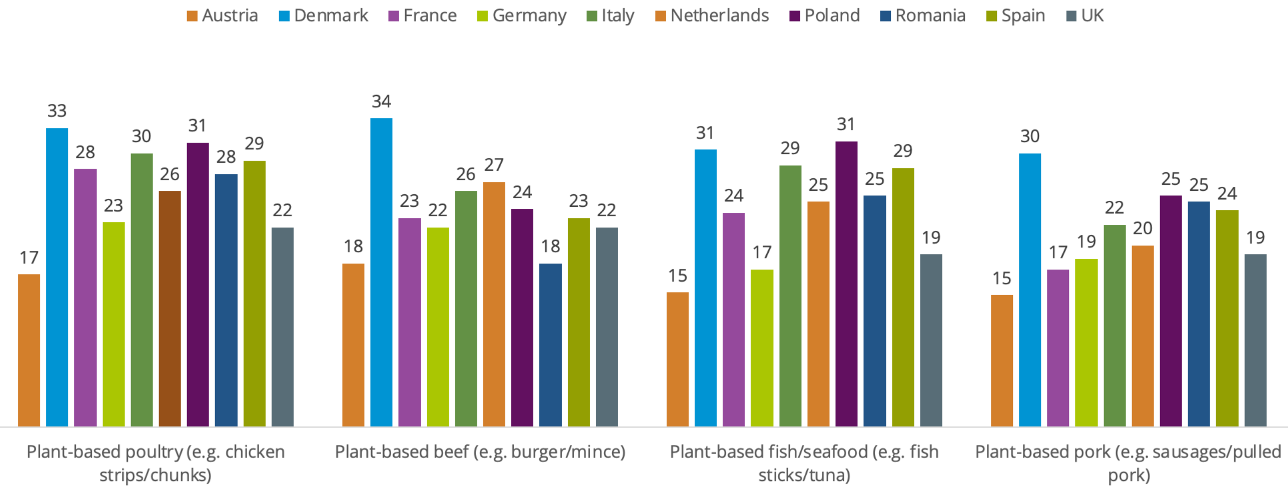
PLANT-BASED DAIRY ALTERNATIVE ITEMS CONSUMED AT LEAST ONCE A WEEK (BY COUNTRY, PERCENTAGES)



Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Daily+weekly consumption= 1-3 times per week+4-6 times per week+1 time per day+2 times per day | Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Danish consumers lead the way in perceived plant-based milk consumption in comparison to other countries (43%). In terms of plant-based yoghurt, the highest consumption is seen in Poland (40%) and Italy (39%). Lastly, plant-based cheese is mostly consumed by Danish (38%), Polish (37%), and Spanish consumers (36%).

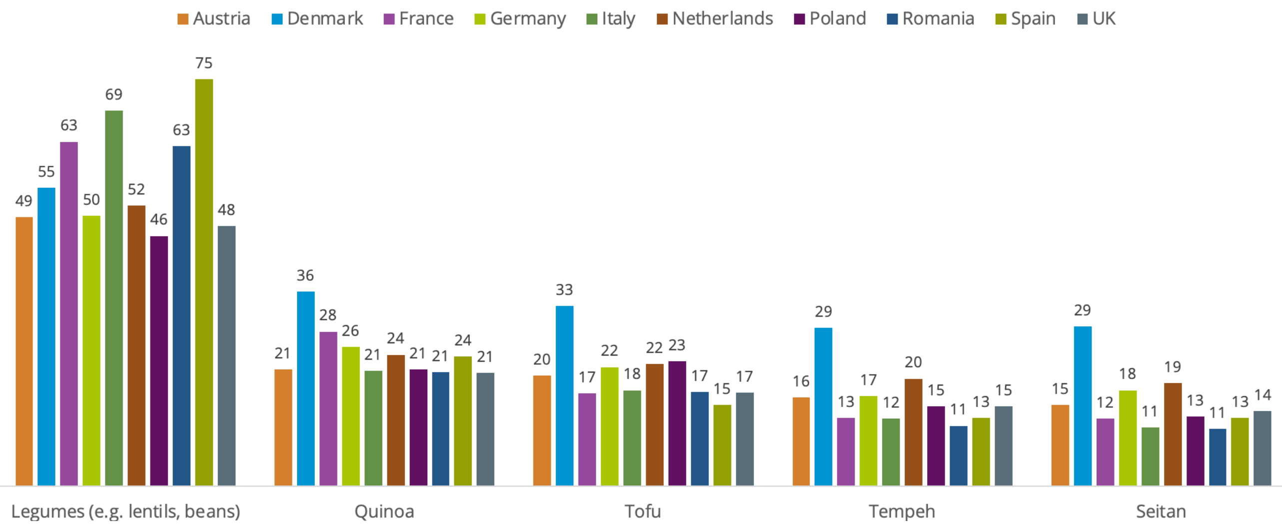
PLANT-BASED MEAT ALTERNATIVE ITEMS CONSUMED AT LEAST ONCE A WEEK
(BY COUNTRY, PERCENTAGES)



Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Daily+weekly consumption= 1-3 times per week+4-6 times per week+1 time per day+2 times per day | Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Denmark stands out with the largest proportion of consumers who have incorporated plant-based meats into their regular eating habits (32% on average). In France, Austria, the UK, and Romania, there are notably fewer consumers who eat these products at least once a week despite their leading role in reducing meat consumption. Austria, in particular, stands out for its high numbers of flexitarians and vegans, but reports low levels of consumption of plant-based alternatives.

CONSUMPTION OF LEGUMES AT LEAST ONCE A WEEK (BY COUNTRY, PERCENTAGES)



Q7: Which statement best describes how frequently you consume the following food products? | Single choice | Daily+weekly consumption= 1-3 times per week+4-6 times per week+1 time per day+2 times per day | Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Legumes are consumed the most in Spain and Italy (75% and 69% respectively).

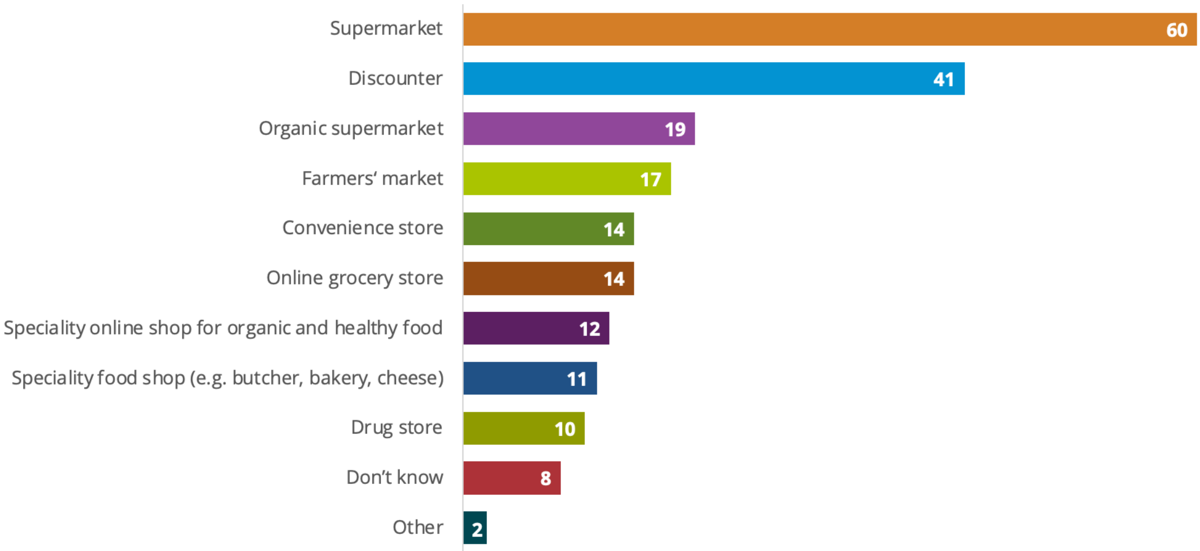
Legumes are reportedly consumed the most in Spain and Italy (75% and 69% respectively), reflecting the cultural affinity for legumes in these two countries (and thus great opportunities for the marketing of legume-based products in these regions). In contrast, Poland, the UK, and Austria have the lowest levels of legume consumption (46%, 48%, and 49%). Emphasising the nutritional benefits and culinary versatility of legumes could encourage greater adoption in these countries.

When it comes to quinoa and other legume-based foods, Denmark again stands out with the highest level of consumption (36% and 30% respectively). The Netherlands follows but at a visible distance (24% and 20% respectively).

Chapter IV

Market opportunities for plant-based alternatives

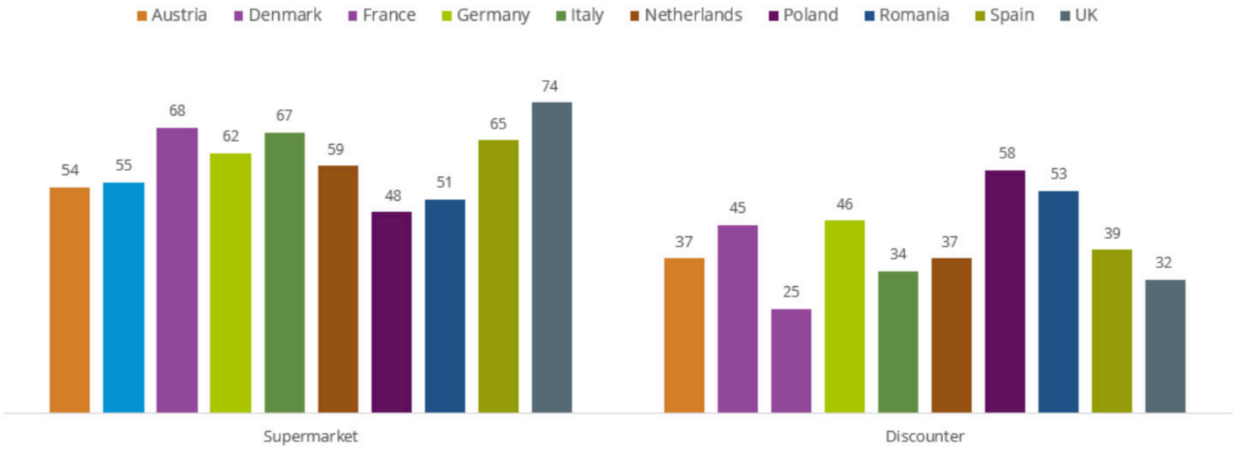
PREFERRED FUTURE POINTS OF PURCHASE FOR PLANT-BASED ALTERNATIVES
(TOTAL SAMPLE, PERCENTAGES)



Q16: Where are you likely to purchase plant-based food alternatives most frequently in the future? | Multiple choice| Total= 7500 |

When consumers were asked where they buy plant-based foods, supermarkets emerged as the preferred purchase location foods, with 60% of respondents opting for them as their primary shopping destination. Discount stores rank as the second-most favoured option, with over 40% of consumers expressing their preference for these outlets. Less than 20% of respondents purchase plant-based alternatives in other locations.

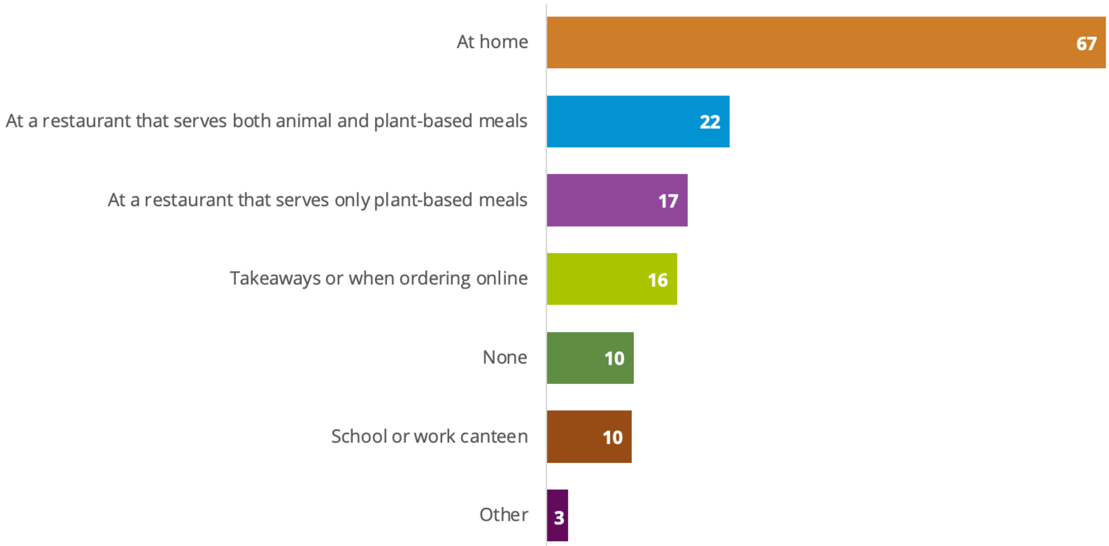
PREFERRED FUTURE POINTS OF PURCHASE FOR PLANT-BASED ALTERNATIVES
(SUPERMARKET AND DISCOUNTER, BY COUNTRY, PERCENTAGES)



Q16: Where are you likely to purchase plant-based food alternatives most frequently in the future? | Multiple choice| Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750 | Highlighted in green are top 3 country scores by place of purchase

Preferences for purchasing plant-based alternatives in supermarkets vary across countries, with Poland at 48% and the UK at 74%. Consumers in Germany, Poland, and Romania are more likely to shop at discounters than the average European (46%, 58%, and 53%). **Availability and visibility at both supermarkets and discounters continue to be key factors in supporting an increase in the consumption of plant-based alternatives in Europe**.

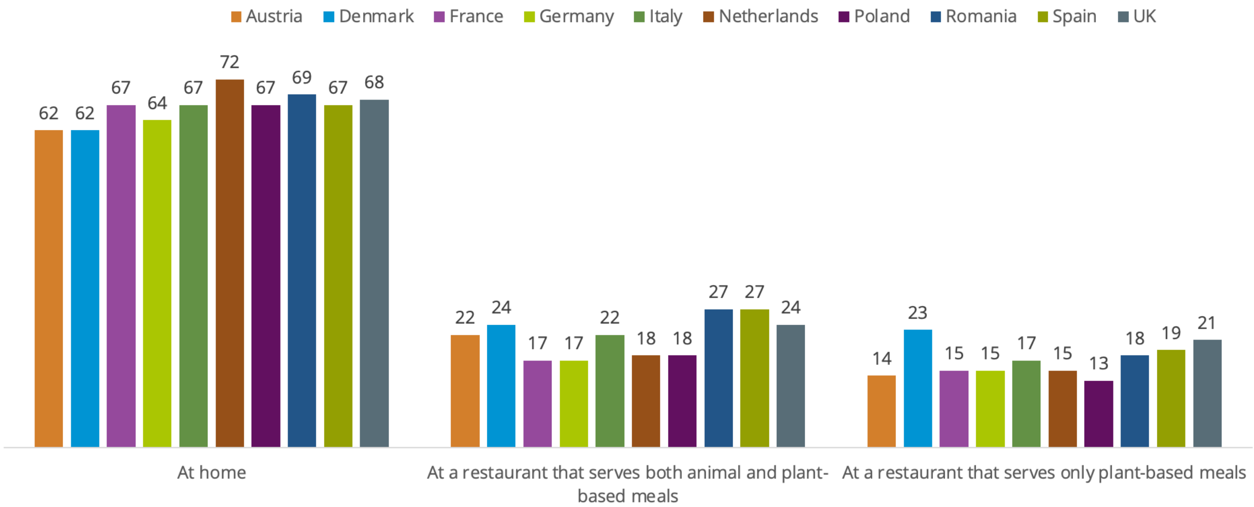
PREFERRED POINTS OF CONSUMPTION OF PLANT-BASED ALTERNATIVES (TOTAL SAMPLE, PERCENTAGES)



Q17: In which of the following locations do you normally consume plant-based food alternatives? | Multiple choice | Total= 7500

When it comes to where they eat plant-based meals, most Europeans prefer to do so in the comfort of their own homes (67%). Restaurants are the next choice for plant-based meals, with options ranging from those serving both animal- and plant-based meals (22%) to those exclusively offering plant-based options (17%). Takeaways and online orders are also relatively common (16%), followed by canteens at school or work (10%).

TOP 3 PREFERRED POINTS OF CONSUMPTION OF PLANT-BASED ALTERNATIVES
(BY COUNTRY, PERCENTAGES)



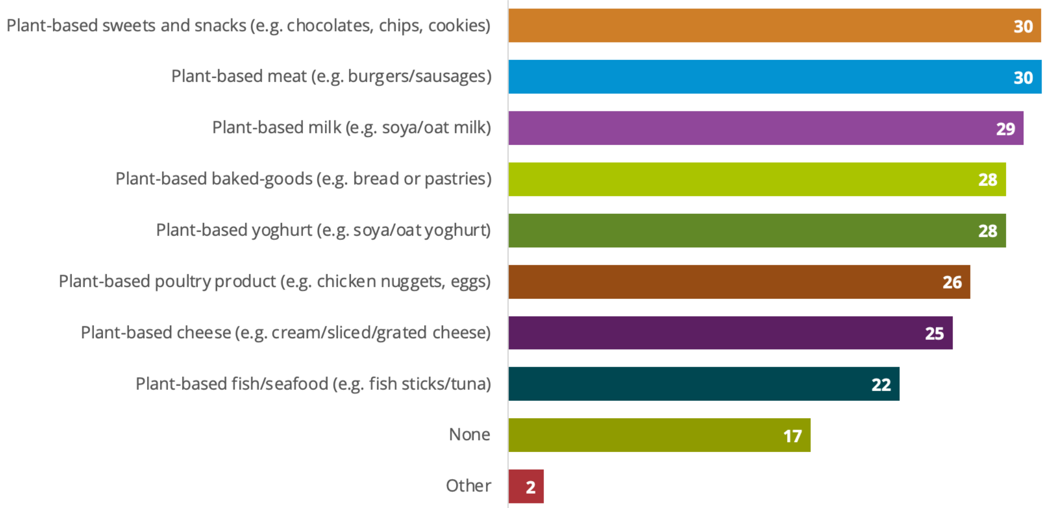
Q17: In which of the following locations do you normally consume plant-based food alternatives? | Multiple choice | Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

The majority of respondents in all countries (62%-72%) consume plant-based meals at home. Given that the majority of respondents across Euro-pean countries prefer to eat plant-based meals at home, **there is an opportunity for food companies and retailers to focus on promoting the appeal of plant-based alternatives for home cooking**.

When it comes to dining out, the UK, Poland, and Romania stand out with the highest percentage of respondents (24%, 27%, and 27%, respectively) choosing plant-based alternatives at restaurants that offer a wide variety of food, in contrast to France and Germany, where the percentage is lower (17%).

Denmark stands out as the country with the highest proportion of respondents (23%) who consume plant-based alternatives at fully plant-based restaurants, whereas Poland has a lower percentage of such respondents (13%).

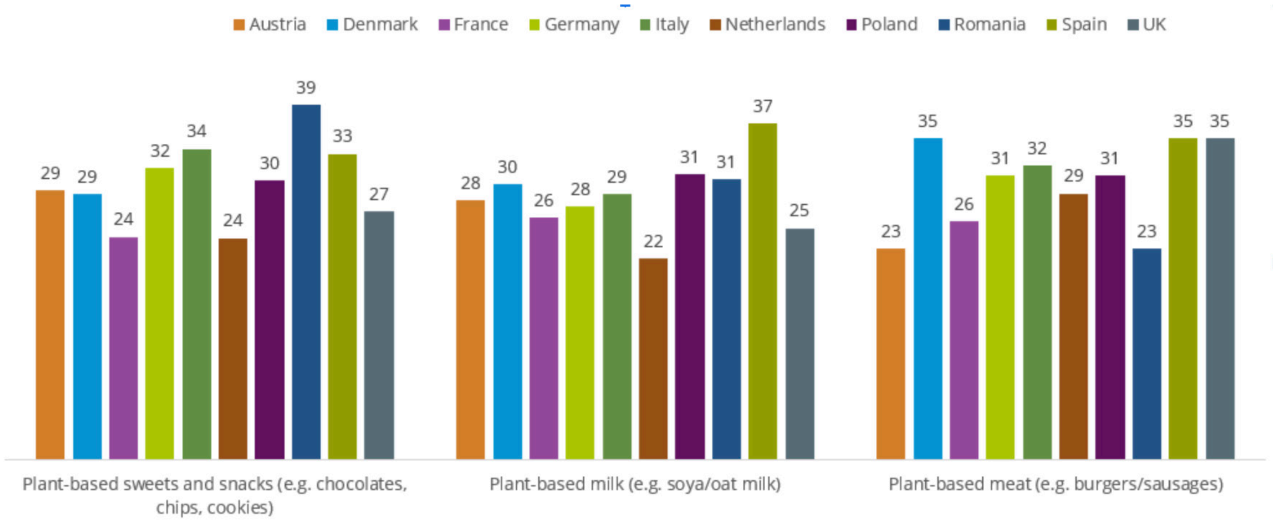
PRODUCTS THAT EUROPEAN CONSUMERS WANT TO SEE THE MOST (TOTAL SAMPLE, PERCENTAGES)



Q18: What kind of plant-based food alternative(s) do you wish you could buy more often in the supermarket or at points of consumption (e.g restaurants, cafes, etc.)? | Multiple choice| Total= 7500 |

On average, 27% of Europeans express a desire for more plant-based alternatives to be readily available in supermarkets. **Plant-based sweets, meat alternatives, and milk substitutes emerge as the most sought-after categories for expanding plant-based options**.

TOP 3 PLANT-BASED ALTERNATIVES THAT EUROPEAN CONSUMERS WISH THEY COULD BUY MORE OFTEN AT SUPERMARKETS OR POINTS OF CONSUMPTION (BY COUNTRY, PERCENTAGES)

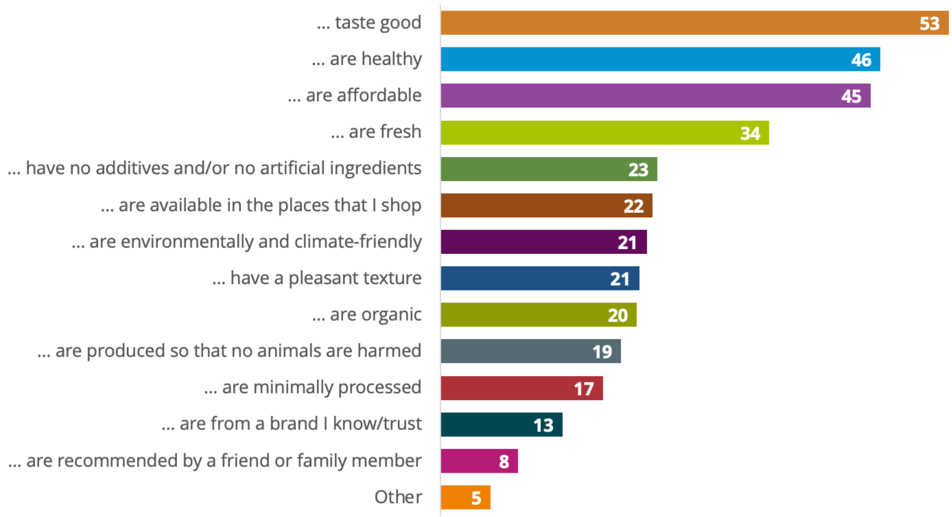


Q18: What kind of plant-based food alternative(s) do you wish you could buy more often in the supermarket or at points of consumption (e.g restaurants, cafes, etc.)? | Multiple choice| Total= 7500 |

Consumers in Romania are at the forefront when it comes to desiring more plant-based sweets and snacks, with 39% expressing this preference. As for the demand for additional plant-based milk alternatives, Spanish consumers lead with 37%. In the category of plant-based meats, consumers in Spain, the UK, and Denmark show a significant interest, with 35% in each of these countries expressing a desire for more options. The demand for more variety in these countries presents an opportunity for businesses to expand their offerings of plant-based products to meet consumer preferences and potentially tap into growing markets.

Consumers in the Netherlands and Austria appear to be happier with the availability of plant-based options compared to the other countries. Companies in these areas might want to upgrade strategies such as further enhancing product quality, improving flavour or lower prices to reach mainstream affordability, new products in niche categories (e.g. ready to eat), in order to improve consumer satisfaction and increase their market position.

DRIVERS FOR CHOOSING PLANT-BASED ALTERNATIVES (TOTAL SAMPLE, PERCENTAGES)

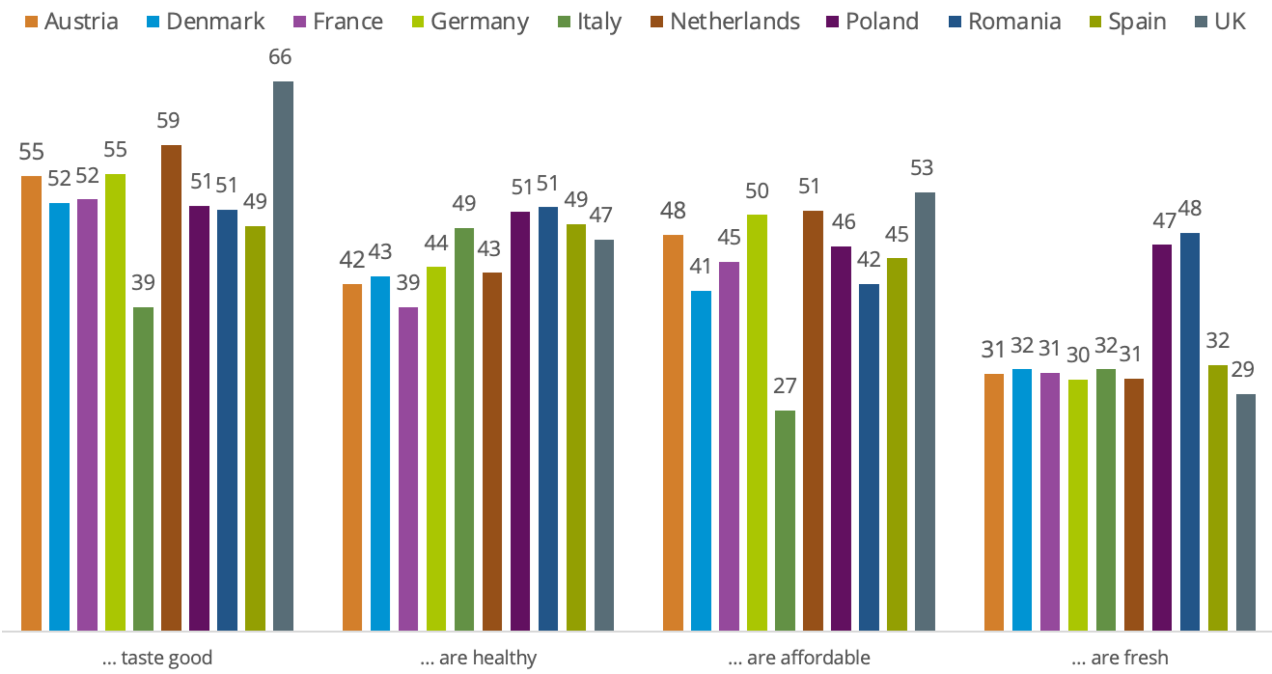


Rank top 10 in 2021:
1. Taste
2. Health
3. Fresh
4. No additives
5. Cheap
6. Environmentally friendly
7. Produced in a way that no animals are harmed
8. Organic
9. Pleasant texture
10. Minimally processed
11. Easy to prepare

Q14: What are the most important factors when choosing plant-based food alternatives? It is important to me that the plant-based food alternatives I choose... | Multiple choice (max 5) | Total= 7500 |

When it comes to buying plant-based alternatives, consumer's purchasing decisions are centred around taste (53%), health (46%), and affordability (45%). Unsurprisingly, given the increase in inflation over the last two years, affordability gained increased prominence in 2023 compared to 2021. Additionally, the freshness of a product also holds significant sway over consumer choices, with ethical and environmental considerations following closely behind, indicating that consumers are actively seeking products that align with their values and that they support sustainable practices.

TOP 4 MOTIVATIONS FOR CHOOSING PLANT-BASED ALTERNATIVES (BY COUNTRY, PERCENTAGES)



Q14 What are the most important factors when choosing plant-based food alternatives? It is important to me that the plant-based food alternatives I choose... | Multiple choice (max 5) | Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

- **Taste is a crucial factor for consumers across all countries**, with percentages ranging from 39% (for Italy) to 66% (UK), and an overall average of 53%
- **Health is the second most important driver**, with percentages ranging from 39% (France) to 49% (Italy and Spain), and an overall average of 46%
- Consumers in most countries **also prioritise affordability**, with percentages ranging from 27% (Italy) to 53% (UK), with an overall average of 45% across all countries.
- The importance of **freshness** is consistent across countries, with percentages ranging from 29% (UK) to 48% (Poland and Romania), and an overall average of 34%.

Regardless of age, lifestyle, or attitudes towards plant-based eating, taste is king.

TOP 3 MOTIVATIONS FOR CHOOSING PLANT-BASED ALTERNATIVES (BY DIETARY GROUPS, DEMOGRAPHIC GROUPS, PERCENTAGES)

	Taste	Health	Affordability
Flexitarians.	54	52	48
Omnivores	54	44	45
Boomers (1946- 1964)	56	47	47
Gen X (1965-1980)	54	47	46
Gen Z (1997-2012)	51	46	44
Millennials (1981-1996)	51	43	43
Female	56	46	48
Male	50	45	42

Q14: What are the most important factors when choosing plant-based food alternatives? It is important to me that the plant-based food alternatives I choose... | Multiple choice (max 5) | Total= 7500 | Boomer n= 1013 | Gen X n=2238 | Gen Z n=1811 | Millennial n=2438 | | Flexitarians n=2044 | Omnivores n=4635 | Deniers n=1275 | Committed= 525 | Lapsed= 300

Drivers by generations

Affordability is also an important factor, with a majority of respondents in each group selecting it. In general, Boomers place the most importance on the three key drivers in relation to taste, health, and affordability (56%, 47% and 47%), especially compared to Gen Zs who rate them as of slightly less importance (51%, 47% and 46%).

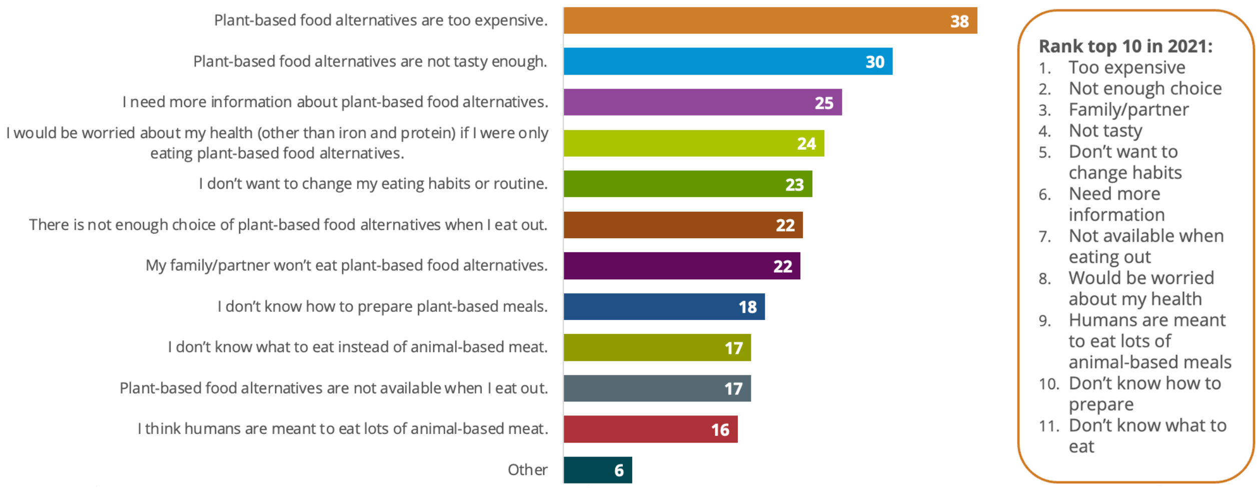
Drivers by dietary lifestyles

While taste has similar importance ratings for flexitarians and omnivores, **flexitarians place slightly higher importance on affordability (52%) and health (48%), compared to omnivores (44% and 45%)**, suggesting that flexitarians might be more aware of the health benefits.

Drivers by genders

For females, taste is more important than it is for males (56% and 50%, respectively). Health is an important factor for both females (46%) and males (45%). **Affordability is more important for females (48%) than for males (42%). This indicates that if certain attributes are valued by males, they might be willing to pay more than females**.

BARRIERS TO CHOOSING PLANT-BASED ALTERNATIVES (TOTAL SAMPLE, PERCENTAGES)

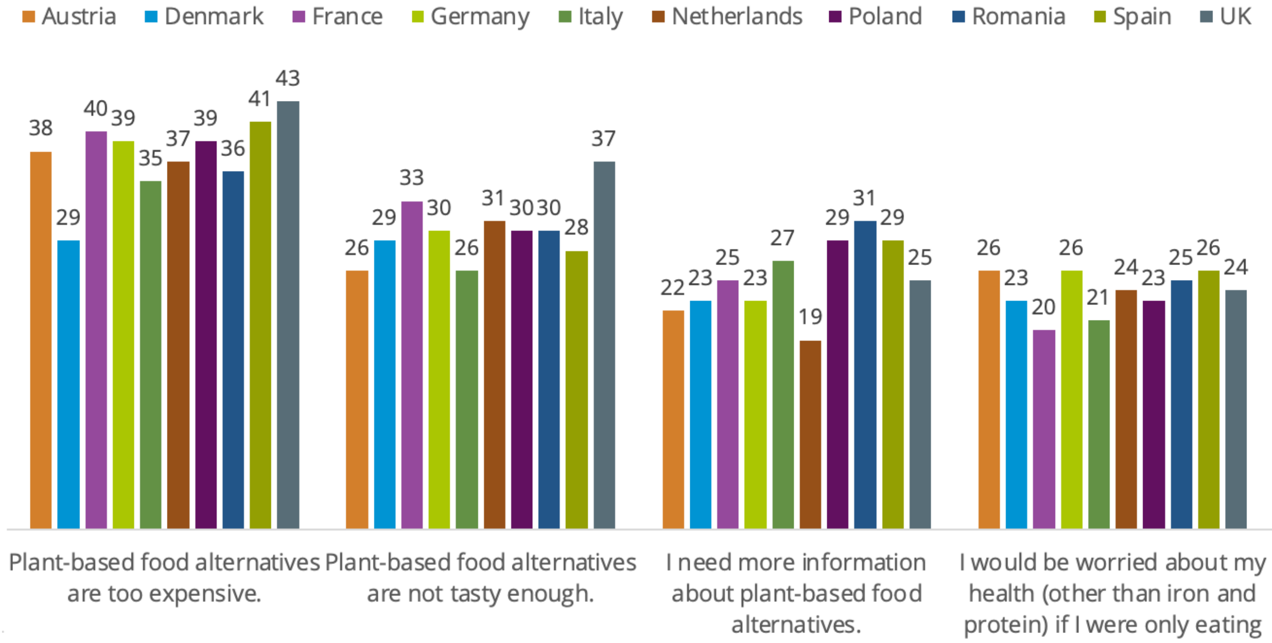


Q15: Which of the following do you encounter as barriers when choosing plant-based food alternatives? | Multiple choice (max 5) | Total= 7500 |

When looking at barriers to choosing plant-based alternatives, price emerges as the most prominent reason not to opt for such products, with 38% of European respondents expressing concern about affordability. These financial considerations and perceptions could potentially be a significant hindrance to widespread adoption of plant-based diets, regardless of whether plant-based food items are actually more expensive than their animal-based equivalents or if it is simply an issue of perceptions.

Taste is another crucial factor, with **30% of respondents indicating that plant-based alternatives are perceived as not being tasty enough**. Additionally, one in four respondents (25%) expressed a need for more information about plant-based alternatives, highlighting the need for better education and awareness on the subject. Lastly, health-related concerns are another key barrier to regular consumption, with **24% of respondents worried about the health aspects – beyond iron and protein – of exclusively consuming plant-based alternatives.**

TOP 4 BARRIERS FOR CHOOSING PLANT-BASED ALTERNATIVES (BY COUNTRY, PERCENTAGES)



Q15: Which of the following do you encounter as barriers when choosing plant-based food alternatives? | Multiple choice (max 5) | Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Similar barriers to adopting plant-based alternatives are evident across Europe, with concerns including cost, taste perceptions, health concerns, and a need for more information.

Price is also a prevalent concern across all countries, with figures ranging from 29% (in Denmark) to 43% (UK).

The UK has the highest level of concern that plant-based alternatives are not tasty (37%). Consumers in Italy and Austria struggled the least with the taste of plant-based alternatives (26% each).

Romania, Poland, and Spain had the highest percentage of respondents who said that they needed more information about plant-based eating (31%, 29% and 29% respectively). Interestingly, this correlates with consumers in these countries displaying low levels of motivation to reduce their meat consumption and make the shift towards plant-based alternatives.

In terms of health concerns, **Romanian, German and Austrian consumers appear to be the most concerned (26% each)**, while French consumers, who exhibit lower acceptance of plant-based foods, seem to be influenced by health concerns (20%).

TOP 3 BARRIERS TO CHOOSING PLANT-BASED ALTERNATIVES (BY DEMOGRAPHICS AND DIETARY-TRANSITION STAGES, PERCENTAGES)

	Expensive	Not tasty	Need more information
Flexitarians.	42	28	28
Omnivores	36	32	24
Boomers (1946- 1964)	38	32	27
Gen X (1965-1980)	37	31	26
Gen Z (1997-2012)	39	30	24
Millennials (1981-1996)	36	27	25
Female	41	29	25
Male	34	31	26

Q15: Which of the following do you encounter as barriers when choosing plant-based food alternatives? | Multiple choice (max 5) | Total= 7500 | Boomer n= 1013 | Gen X n=2238 | Gen Z n=1811 | Millennial n=2438 | | Flexitarians n=2044 | Omnivores n=4635 | Deniers n=1275 | Committed= 525 | Lapsed= 300 | Highlighted in green: highest % per column per demographic

A significant percentage of respondents cite cost as a barrier to adopting plant-based alternatives (38% on average). Across different groups, it is interesting to note that **flexitarians, females and GenZ members, – all of whom are likely to have had substantial prior experience with products – tend to find them the most expensive (42%, 41% and 39%, respectively)**.

Taste, the second most prominent barrier, has a substantial proportion of respondents indicating that they find plant-based alternatives "not tasty" (30% on average). Across groups, **taste concerns are the most prevalent among omnivores (32%) and Boomers (32%)**.

Regarding the lack of information, the third most prominent barrier for European consumers (25% on average), notable findings are also seen across the different target groups. **Lack of information is especially seen among the boomer audience (27%) and flexitarians (28%)**.

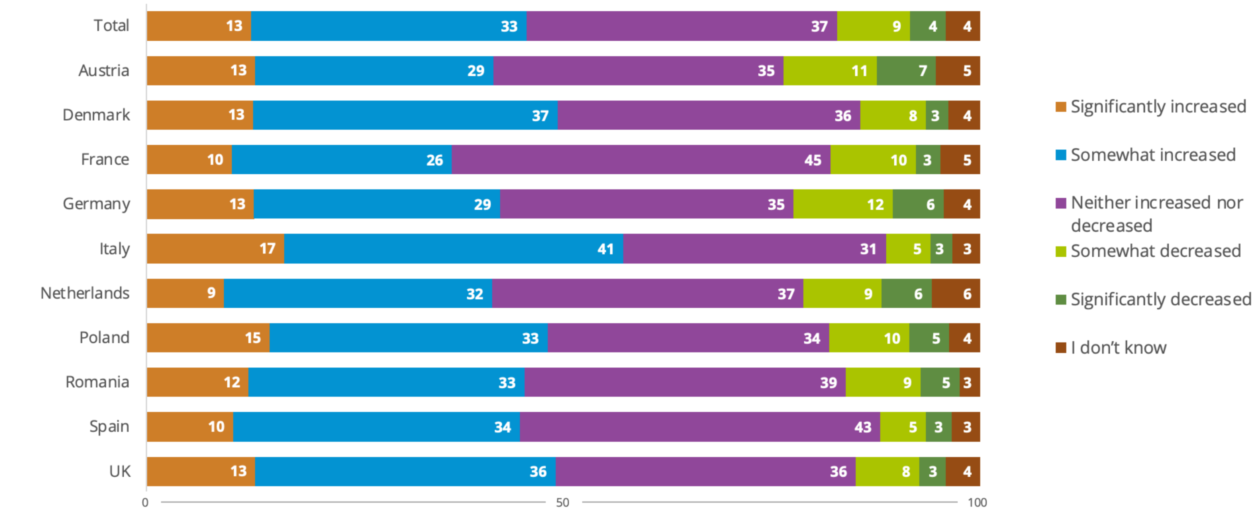
Health assessment of plant-based alternatives

A recent study conducted by ProVeg Netherlands[24] sheds some light on the nutritional profile of plant-based meat alternatives in comparison to their animal-based counterparts. ProVeg Netherlands compared the nutritional value of 130 plant-based meat substitutes from Dutch supermarkets with the nutritional value of correlating meat products. The products were tested against the national criteria for meat substitutes as determined by the Netherlands Nutrition Center.

The findings reveal that, on average, **plant-based meat substitutes offer a more favourable nutritional profile than their animal-meat counterparts, with lower saturated fat, reduced calorie content, and significantly higher dietary fibre**, all of which are indicators of being a healthier option. Moreover, the fact that a greater percentage of meat substitutes meet the Nutrition Center's criteria related to lifestyle diseases – including lower levels of salt and saturated fats – compared to animal-based products, reflects the healthier nature of a plant-based diet, and also suggests that plant-based manufacturers are creating products that are healthy as well as tasty, in their efforts to attract health-conscious consumers. To learn more about the results of this report, please visit the ProVeg Netherlands website.

[24] ProVeg Netherlands (2023): Meat substitutes are often healthier than comparable meat products https://proveg.com/nl/blog/vleesvervangers-vaak-gezonder-dan-vergelijkbare-vleesproducten/

CHANGE IN LEVELS OF TRUST TOWARDS PLANT-BASED FOODS AMONG EUROPEAN CONSUMERS
(TOTAL SAMPLE, PERCENTAGES)



Q19: When thinking about your overall knowledge and experience with plant-based food alternatives, has your current trust increased or decreased in comparison to three years ago? My level of trust has ... | Single choice|Total: n= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

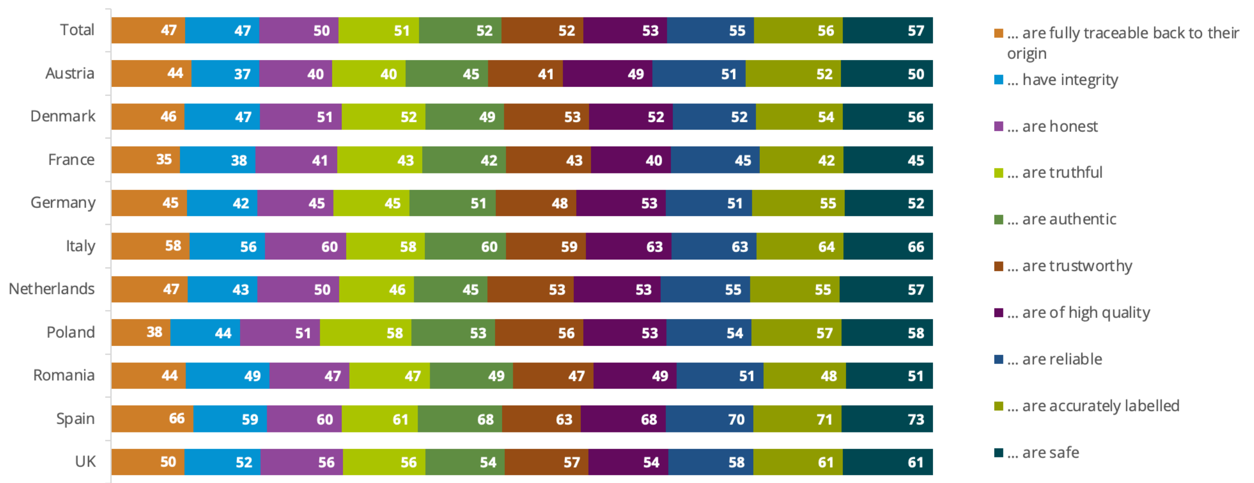
Overall, there has been a notable increase in levels of trust towards plant-based alternatives, with **46% of Europeans trusting these more than they did three years ago**. This positive trend is particularly prominent in Italy (58%), Denmark (50%), and the UK (49%). **France and Austria, however, seem to be trailing slightly behind the rest of Europe's trend in terms of trusting plant-based alternatives (36% and 42% respectively)**. This clearly presents a significant opportunity to address consumer needs, given that both countries have substantially reduced their consumption of conventional meat.

ASSOCIATION OF STATEMENTS OF TRUST WITH PLANT-BASED ALTERNATIVES
(TOTAL SAMPLE, PERCENTAGES)

Q20: When thinking specifically about plant-based food alternatives, please indicate how much you disagree or agree with each of the following statements. I trust that plant-based food alternatives... |Single choice | Total agreement level (Strongly agree + Agree + Somewhat agree)| Total=7500 |

Overall, Europeans trust plant-based alternatives because they are **“safe” (57%), “accurately labelled” (56%), and “reliable” (55%). However, respondents were less confident about traceability (47%) and overall integrity (47%)**. Brands that prioritise clear labelling, transparency about sourcing, and product integrity are likely to build stronger consumer trust and thus gain a competitive advantage.

ASSOCIATION OF STATEMENTS OF TRUST WITH PLANT-BASED ALTERNATIVES
(BY COUNTRY, PERCENTAGES)



Q20: When thinking specifically about plant-based food alternatives, please indicate how much you disagree or agree with each of the following statements. I trust that plant-based food alternatives... |Single choice | Total agreement level (Strongly agree + Agree + Somewhat Agree)| Total=7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Across countries, there is a visible difference in the perception that enhances trust in plant-based alternatives. Italy has the highest level of trust for plant-based being “safe” to consume with 66%, France has the lowest with 46%. When it comes to the accuracy of labelling, Spain stands out with 71% agreement, whereas France lags behind at 46%. In terms of the third most important factor that enhances trust across European markets, Spain leads with 70%, while France once again falls behind in trusting plant-based alternatives are reliable.

Countries with high trust levels, like Italy, can serve as examples for other regions on how to successfully build trust in plant-based products. Learning from these countries can be valuable for fostering acceptance in areas with lower trust. **The low trust in plant-based alternatives by French consumers suggests a need for targeted efforts to improve consumer confidence in plant-based alternatives in the French market**. This may include clear labelling and educational campaigns of the safety and reliability of these products.

NO 1. RANKING OF EACH ALTERNATIVE PROTEINS (TOTAL SAMPLE 2023 VS 2021, PERCENTAGES)

	2023	2021	+/- pp
Plant-based protein (including cereals, pulses)	43	39	+4
Cultivated protein (e.g. cultivated meat, cultivated dairy, etc.)	20	14	+6
Fungi (e.g. mushroom, mycelium, yeast)	17	18	-1
Algae-based	11	13	-2
Insect-based protein	9	16	-7

Q21: Which of the following alternative proteins do you trust the most? Rank them from 1 (trust the most) to 5 (trust the least) | Single choice| Total 2023: 7500 | Total 2021: 7500 | +/- pp = percentage change | Highlighted in green significantly across years at a 95% confidence level

In terms of levels of trust toward different kinds of alternative proteins, **European consumers express the highest level of trust in plant-based protein (43%),** followed at a distance by cultivated protein (20%) and fungi (17%). Algae and insects are perceived as the least trustworthy sources of protein.

Looking at the trust rankings of alternative proteins in 2023 compared to 2021, it is clear that levels of trust are solidifying. Trust in plant-based protein has increased by four percentage points. Trust in cultivated protein is also on the rise, having increased by six percentage points. Algae-based protein, on the other hand, has seen a slight decrease in trust, highlighting the need for continued promotion of its unique qualities. The most significant shift is seen in insect-based protein, where trust levels decreased by seven percentage points, reflecting a 43% decrease and indicating that there are persistent challenges in overcoming social barriers to the acceptance of insects as a protein source in Europe.

MOST TRUSTWORTHY SOURCES OF ALTERNATIVE PROTEINS (BY COUNTRY MENTIONS*)

	Top 1	Top 2	Top 3
Plant-based protein	Italy	Netherlands	Poland, Spain, UK
Cultivated protein	Denmark	Germany	Spain
Fungi	Austria	Poland, Romania, UK	Denmark, France, Germany
Algae-based	France, Romania	Spain	Italy
Insect-based protein	Netherlands	Austria, Germany	Denmark, France

Which of the following alternative proteins do you trust the most? (trust the most) | Single choice| Total: 7500
*Mentions are counted as the total number of consumers in each country ranking each source as the most trustworthy source.

Italy leads in the consumption and acceptance of plant-based proteins, followed by the Netherlands. Poland, Spain, and the UK also show significant interest and consumption of plant-based protein sources. **Denmark ranks the highest in the acceptance of cultivated protein sources**, followed by Germany and Spain. **Austria leads in the acceptance and consumption of fungi-based protein sources**. Poland, Romania, the UK, Denmark, France, and Germany also show significant interest in fungi-based proteins. **France and Romania lead in the consumption and acceptance of algae-based proteins**. Spain and Italy also show significant interest in this category. **The Netherlands ranks highest in the acceptance of insect-based protein sources**. Austria, Germany, Denmark, and France also show significant interest in incorporating insects as a protein source.

MOST TRUSTWORTHY SOURCES OF ALTERNATIVE PROTEINS (BY DEMOGRAPHIC TOP MENTIONS*)

	By dietary lifestyle Top 2 segments	By generation Top 2 segments	By gender
Plant-based protein	Flexitarians, Vegetarians	Boomer, Gen X	Female
Cultivated protein	Omnivores, Vegans	Gen Z, Millennial	Male
Fungi	Vegans, Omnivores	Boomer, Gen X	Male
Algae-based	Pescatarian, Vegan/Vegetarian	Gen Z, Millennial	Male
Insect-based protein	Pescatarian, Vega	Gen Z, Millennial	Male

Which of the following alternative proteins do you trust the most? (trust the most) | Single choice | Total: 7500
*Mentions are counted as the total number of consumers in each country ranking each source as the most trustworthy source.

In terms of dietary lifestyle, **flexitarians and vegetarians show the strongest preference for plant-based protein**, including cereals and pulses. **Omnivores and vegans are the most inclined towards cultivated protein sources** like cultivated meat and dairy products. **Fungi-based proteins,** such as mushrooms and mycelium, are appreciated the most by both **vegans and omnivores. Algae-based proteins attract the most pescatarians and individuals following vegan or vegetarian diets**, while insect-based protein appeals the most to pescatarians and vegans.

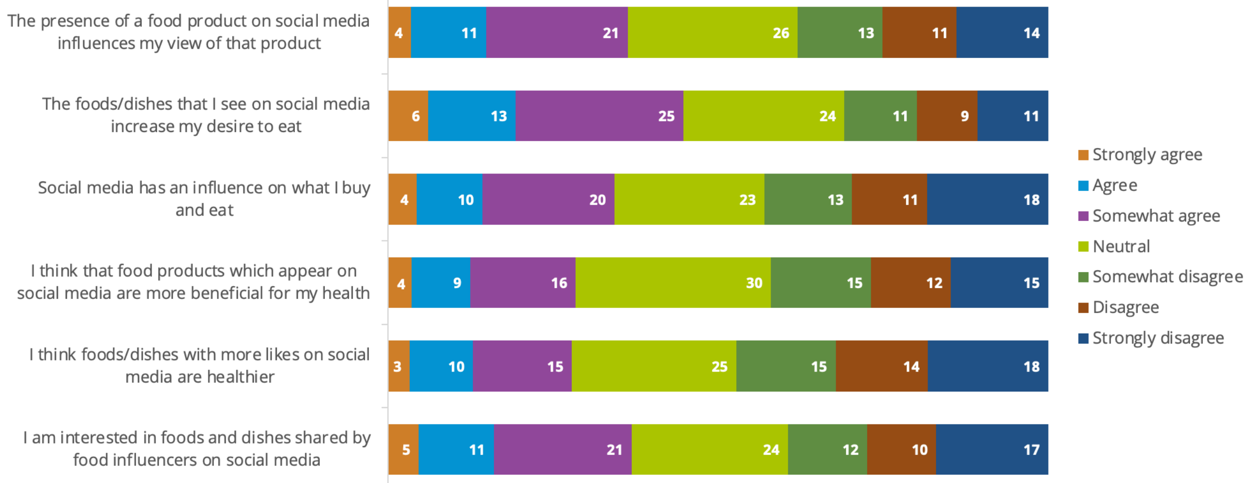
Looking at generation-based preferences, the **Boomer and Gen X generations are the most inclined towards plant-based proteins**, including cereals and pulses. In contrast, **Gen Z and millennials show the highest interest in cultivated proteins.** The Boomer and Gen X generations again display the greatest liking for fungi-based proteins. Algae-based proteins are preferred the most by Gen Z and Millennials, while insect-based proteins draw the most interest from Gen Z and millennial age groups.

Considering gender-based differences, **females show the highest preference for plant-based proteins**, including cereals and pulses. **Males, on the other hand, exhibit the most interest in cultivated proteins,** fungi-based proteins, algae-based and insect-based protein sources.

Chapter V

Social media's influence on European attitudes and purchase behaviours

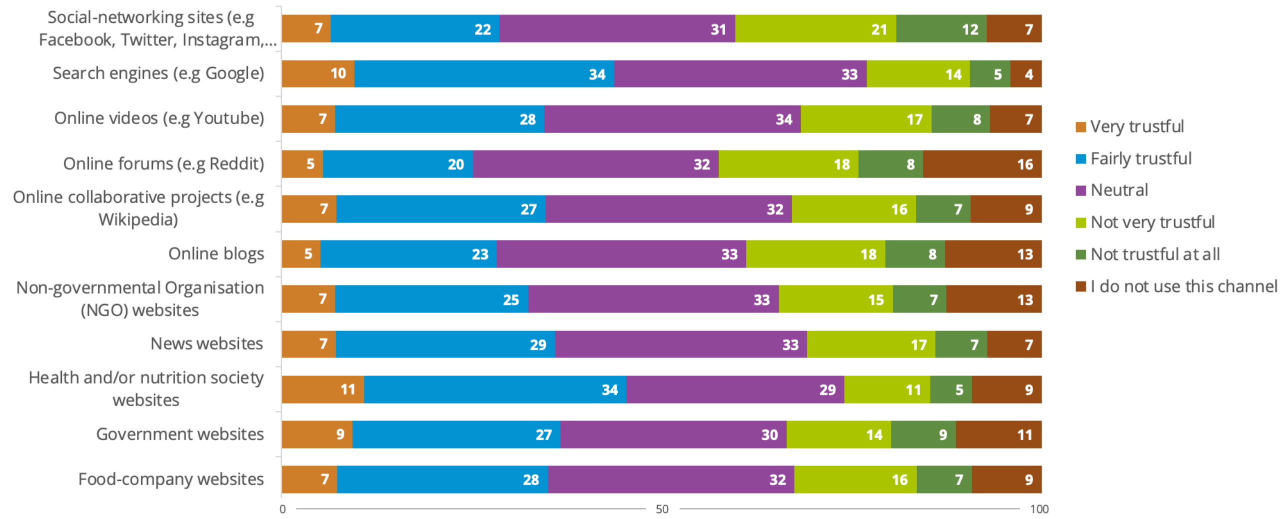
SOCIAL MEDIA INFLUENCE ON FOOD BEHAVIOURS AND ATTITUDES (TOTAL SAMPLE, PERCENTAGES)



Q35: Please indicate how much you disagree or agree with each of the following statements concerning social media and food attitudes | Single choice | Total= 7378

Generally, European consumers who are exposed to social media content are primarily influenced by an increased desire to eat (44% total agreement), followed by influencer content (37% total agreement), and changes in their perception of a specific product (36% total agreement). Conversely, European consumers exposed to social media content show the least agreement with being influenced by positive associations regarding the healthiness of plant-based alternatives (34% agreement). **These results highlight the effectiveness of social media in influencing consumers' desires and perceptions but also suggest a need to focus more on promoting the health aspects of plant-based alternatives through these platforms in a more credible manner.**

MEDIA TRUST (TOTAL SAMPLE, PERCENTAGES)



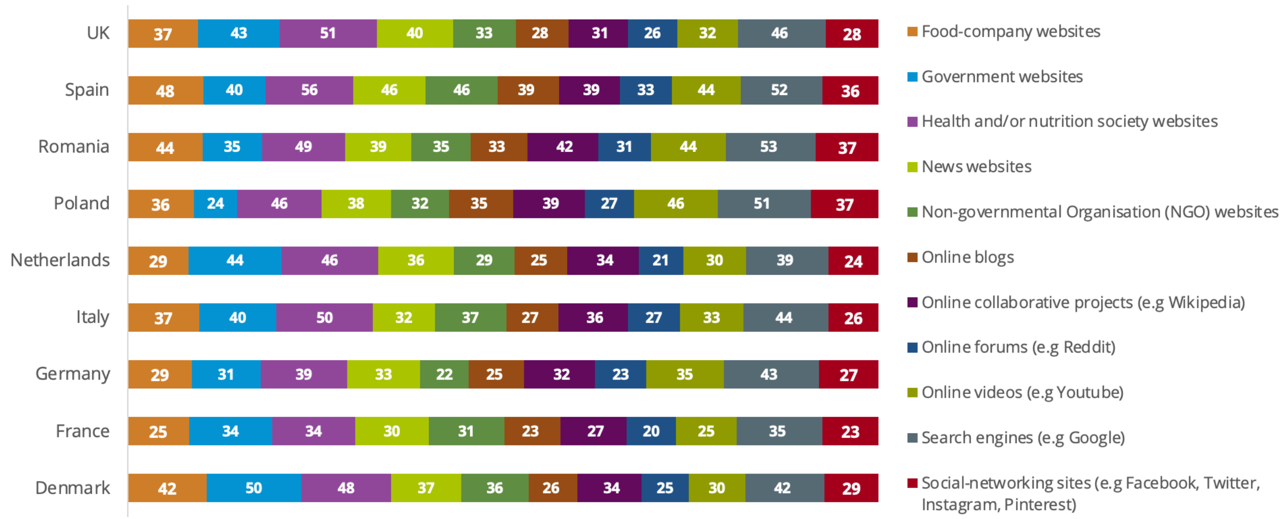
Q31: In general, how much do you trust information about plant-based food products from...” | Single choice | Total= 7500 |

While levels of trust in digital information is generally fairly low, respondents trust information from **health- and nutrition-society websites the most, with 45% finding them very or fairly trustful**. This underscores the authority that these specialised platforms have in the eyes of consumers who are seeking reliable insights into their food choices. **Search engines such as Google closely followed, with 44% deeming them very or fairly trustful, highlighting their roles as quick and easy sources of information**.

On the other hand, online forums such as Reddit and online blogs ranked as less reliable sources, with only around 25% of consumers thinking they are truthful. This demonstrates the cautious approach that consumers have towards user-generated content.

On average, over 50% of Europeans do not appear to consider information about plant-based alternatives communicated in mainstream online media to be particularly trustworthy.

MEDIA TRUST (BY COUNTRY, PERCENTAGES)



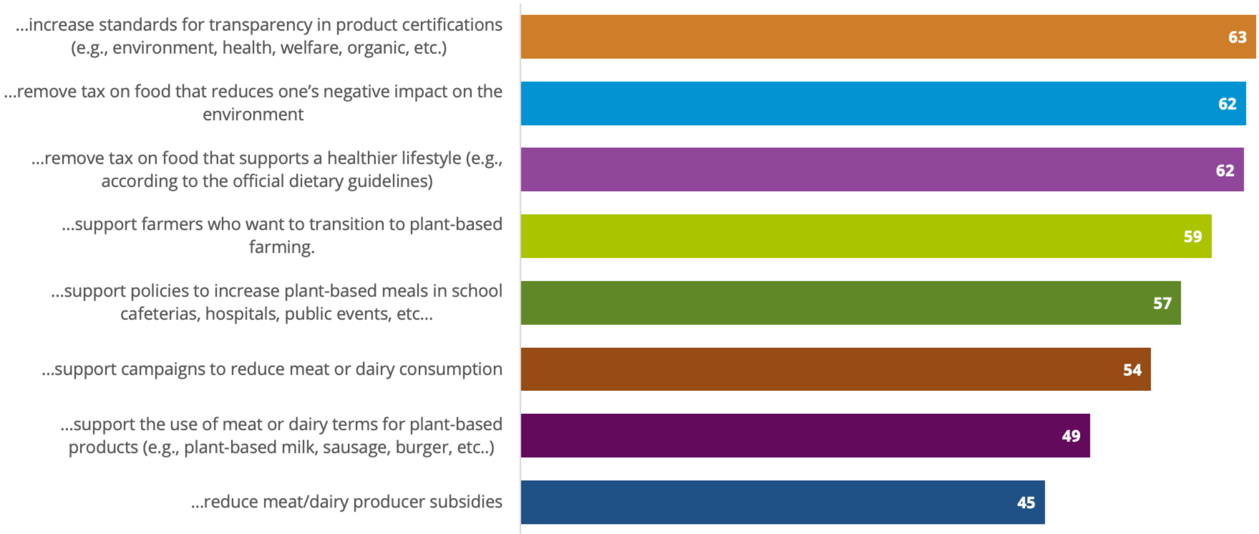
Q31: In general, how much do you trust information about plant-based food products from...” | Single choice | Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

When looking at the individual countries, Romania, Poland, Spain, and Italy indicate the highest levels of trust in most of the listed media sources, while the UK and Austria show a generally lower trend of trust. This trend is intriguing, as the countries where trust is the highest tend to have lower levels of flexitarianism and meat reduction.

Chapter VI

European opinion on food policy actions

OPINIONS ON POLICY (TOTAL SAMPLE, PERCENTAGES)

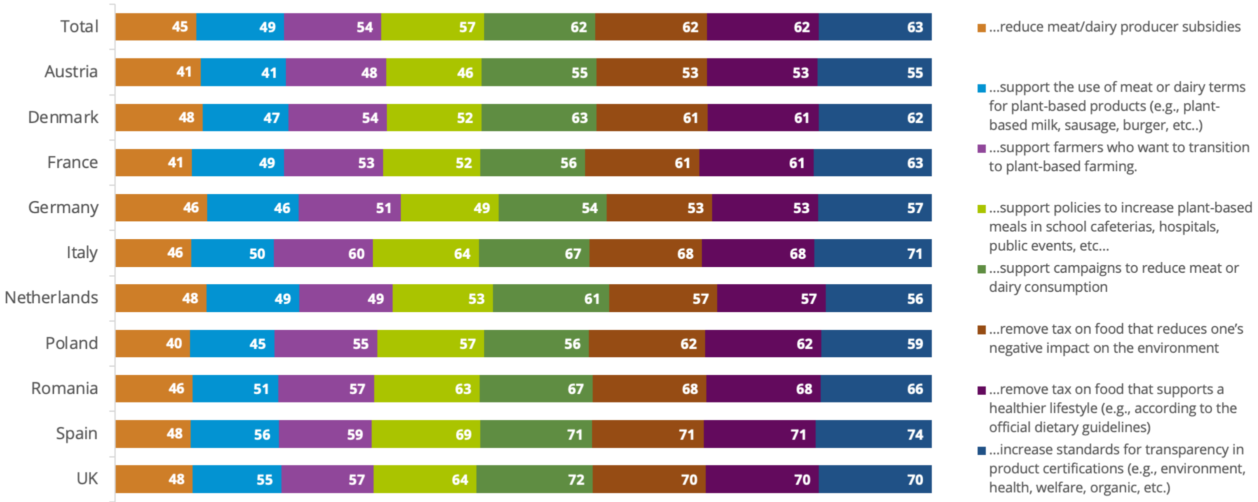


Q22: In your opinion, how much do you agree or disagree with the following statements regarding the actions that policymakers should take? I believe that my government should... | Single choice | Total agreement level (Strongly agree + Somewhat agree + Agree) | Total= 7500 |

- **Transparency certifications**: The majority of respondents (63%) would like to see heightened transparency in product certifications (e.g., environment, health, welfare, organic, etc.), thus allowing for more informed purchase and consumption choices.
- **No taxes on healthy and sustainable foods**: 62% of respondents want taxes to be removed on food that has a positive impact on the environment and health.
- **Plant-based catering in public institutions**: 57% of respondents support calls for policies that promote plant-based meals in schools, hospitals, and public events.
- **Supporting farmers**: 59% of respondents support measures that encourage farmers to make the switch to plant-based agriculture.
- **Collective action**: 54% of consumers support programs aimed at reducing meat and dairy consumption.
- **Clarity in transition**: Nearly half of consumers (49%) are in favour of using conventional meat or dairy terms, thus making the transition to alternative options easier.
- **Levelling the playing field**: 45% of respondents support cutting producer subsidies for meat and dairy products, which would create a more equitable food sector that is not biased towards animal-based food production.

In conclusion, there is a clear and resounding response from a vast majority of European consumers for policymakers to support the shift of Europe's food system in a more sustainable and healthy direction.

OPINIONS ON POLICY - BY COUNTRY 2023



Q22: In your opinion, how much do you agree or disagree with the following statements regarding the actions that policymakers should take? I believe that my government should... | Single choice | Total agreement level (Strongly agree + Somewhat agree + Agree) | Total= 7500 | Austria n=750 | Denmark n=750 | France n=750 | Germany n=750 | Italy n=750 | Netherlands n=750 | Poland n=750 | Romania n=750 | Spain n=750 | UK n=750

Looking at individual countries, Italy, Spain, and the UK have the highest number of consumers who strongly desire the implementation of various policy actions. Given that the desire for policy actions related to plant-based diets does not always align directly with an explicitly stated intention to reduce meat consumption, **it seems that consumers are more open to policies that discourage general meat consumption than they are to reducing their personal level of meat consumption**. They might support policy actions because they support the promotion of plant-based options without necessarily making the connection to reduced meat intake.

All of this means that the transition to healthier and more sustainable diets involves more than just consumer intentions and actions. In order to create a more sustainable food system in Europe, it is vital that the alternative-protein sector receive support and investment. Government policies and collective efforts are essential to facilitating the necessary shift towards a more plant-based future.

Chapter VII

Conclusion and final recommendations

This second wave of the Smart Protein consumer research reveals an important and ongoing transformation in European dietary habits. **The results demonstrate a growing trend among consumers, who are increasingly motivated to reduce their meat consumption and, at the same time, increase their acceptance for plant-based foods.** Still, factors like taste, health benefits, and affordability continue to play significant roles in the transition towards new dietary habits.

Furthermore, our research findings underscore the need for a collective effort to succeed in the transformation of the food system. This involves proactive steps not only driven by consumers' motivation, but also by policymakers and businesses. This entails increasing the availability and variety of plant-based products and aligning product offerings with consumer expectations, to taking concrete actions from a policy level to support the inevitable transformation of Europe's food system.

13 key outcomes

51% of European meat consumers claim to have reduced their yearly meat intake, up from 46% in 2021. Germany (59%), France (57%), and Italy (59%) lead the way in terms of meat reduction.

On average, **45% of Europeans claim to have adhered to a non-meat-based dietary lifestyle** (flexitarian, vegan & vegetarian) **for more than 2 years.**

62% of European respondents identify as omnivores, with Poland leading at 76%. 27% identify as flexitarians, with Germany leading at 40%. 5% identify as vegetarians, with the UK leading at 7%. 4% identify as pescatarians, with Denmark leading at 5%. 3% identify as vegans, with Austria leading at 5%. **Flexitarians are once again the second-largest consumer group in the EU.**

Interest in flexitarian dietary lifestyles transcends generational boundaries, with 29% of Boomers, 27% of Gen X, 28% of Millennials, and 26% of Gen Z identifying as flexitarians.

The primary motivation for reducing meat consumption is health (47%), particularly in Romania and Italy. Followed by environmental concerns (29%), predominantly in Denmark and the Netherlands, and animal welfare (26%), mainly in Germany and the Netherlands.

57% of Europeans claim to consume legumes at least once a week, with 53% expressing a desire to consume them even more frequently, making **legumes as the favourite plant-based food for European consumers.**

Perceptions around price (38%) and taste (30%) continue to be the main barriers for many European consumers when choosing plant-based alternatives.

On average, 28% of Europeans claim to consume at least one plant-based food alternative at least once a week, up from 21% in 2021. **Plant-based milk is the most consumed plant-based alternative, with 36% of Europeans consuming it at least once a week.**

63% of consumers say they would like to see increased standards for transparency in product certifications, while **62% would like taxes to be zero-rated for foods that have a positive impact on health and the environment.**

46% of Europeans report an increase in their trust in plant-based alternatives compared to two years ago.

More than **54% of consumers claim** to know that eating **plant-based alternatives is good for their health or the environment.**

On average, over **50% of Europeans do not appear to consider information about plant-based alternatives** communicated in mainstream online media to be particularly **trustworthy**.

Cultivated meats seem to be trusted the most by omnivores and men. Denmark ranks the highest in the acceptance of cultivated protein sources, followed by Germany and Spain.

Key recommendations for the future

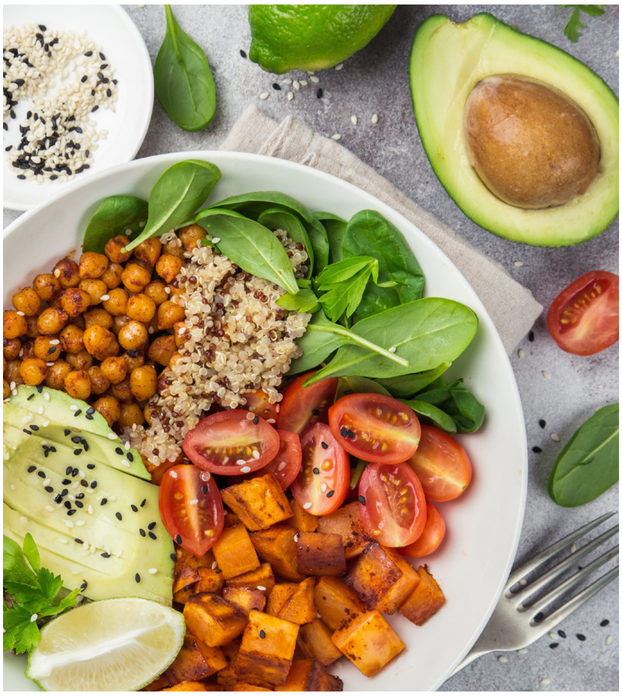
Targeted meat reduction campaigns: Educational campaigns are urgently needed to address the frequency and consequences of excessive meat consumption. This research highlights a substantial disparity between individuals' perceptions and their actual behaviors. Therefore, such education is crucial, not only due to the adverse impacts of excessive meat consumption on health and the environment, but also for empowering individuals to make informed dietary choices. Moreover, in alignment with established guidelines from the European Commission, institutions can serve as role models through their procurement practices. This may involve prioritising plant-based meals in government offices, schools, hospitals, and workplaces, or at the very least, limiting meat-based meals to three per week. This approach will not only encourage healthier dietary choices but also contribute to the normalisation of reduced meat content in meals.

Move from adoption to sustained commitment: With 51% of European meat consumers claiming to have decreased their yearly meat intake, and health continuing to be a significant driving force, it is crucial for public health campaigns to highlight the long-term advantages of transitioning to a plant-based diet. This message should resonate across all demographics, regardless of age, gender, or location. Additionally, it is time for stakeholders in the food industry to enhance strategies for their plant-based alternatives, including improving product quality, enhancing flavour, and reducing prices to make plant-based products more affordable for the mainstream market. This opportunity is even more evident for plant-based alternatives as 29% of Europeans already claim to incorporate some form of plant-based alternative into their weekly routines, and 40% express a desire to further increase their consumption. Furthermore, a crucial aspect is to guarantee that popular plant-based food products within relevant categories are available and accessible at preferred points of purchase or consumption. The success of the approach adopted in Germany offers an inspiring model.

Go beyond plant-based alternatives in order to achieve mainstream acceptance of plant-based lifestyles: Unlocking the full potential of legumes and legume-based foods in Europe is crucial, even alongside the rising popularity of plant-based alternatives.To harness this potential, it's important to develop and promote a wide variety of delicious and easy-to-follow legume-based recipes that cater to varying tastes and dietary preferences. Additionally, offer options for incorporating legumes into everyday meals, such as breakfast smoothies, snacks, and desserts, as a means of expanding their usage beyond traditional recipes. These efforts will not only promote the consumption of legumes but also contribute to a more sustainable and health-conscious food culture in Europe.

Transparency as a competitive advantage: Simply claiming that a product is environmentally friendly or healthy is no longer sufficient. Consumers now seek clear evidence and certified measurements that demonstrate improved traceability and ingredient origin tracking. These measures are essential for building higher levels of consumer trust. In addition, when relying on the substantial impact of social media on consumer behaviour, it is crucial to ensure that shared content originates from reputable sources and, when necessary, is backed by credible certification. It's important to be cautious, as misinformation on social media can potentially harm the reputation and trustworthiness of plant-based products in general.

Advancing the cultivated-protein revolution: Companies that are working on cultivated products should capitalise on the increasing acceptability of cultivated protein by highlighting its benefits and potential to attract a wider consumer base for animal-free foods. Promoting cultivated meat aligns with the goals of sustainability, animal welfare, food security, and public health. Furthermore, cultivated meat holds promise as a solution to meet consumers' high taste expectations for alternative proteins. This is especially true for less-engaged segments with plant-based alternatives, such as omnivores and men.



The transition to healthier and more sustainable diets involves more than just consumer intentions and actions: In order to create a sustainable food system, policy-makers need to encourage support and investment in the alternative-protein sector. There is consumer support for transparent certifications, tax incentives for healthy-food choices, reduced levels of consumption of animal-based foods, and more support for plant-based options. Recent developments in the plant-based sector, including innovative meat, egg, seafood and dairy alternatives and the increased availability of plant-based meals, show the way forward for improvement and change. Policymakers should harness this desire for a fairer and greener future in their legislative work, programmes and policies.

Imprint

European Survey on readiness to adopt a plant-based lifestyle. A follow-up to the 2021 survey report 'What Consumers Want' is published by ProVeg International as part of the Smart Protein project. Smart Protein has received funding from the EU research and innovation programme Horizon 2020, under grant agreement No 862957.

Date of publication: November 2023

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This study was conducted by ProVeg International in partnership with Innova Market Insights, the University of Copenhagen, and Ghent University.

Recommended citation format:
European Survey on readiness to adopt a plant-based lifestyle. The European Commission is not responsible for any use that may be made of the information it contains.

Smart Protein Project
Smart Protein is a €10-million, EU-funded project that seeks to develop a new generation of foods that are cost-effective, resource-efficient, and nutritious. Alternative-protein sources, such as legumes and side streams from beer and pasta production, are used to generate plant-based ingredients as well as plant-based meat, seafood, dairy products, and baked goods.

ProVeg International
ProVeg International is a food awareness organisation working to transform the global food system by replacing 50% of animal-based products with plant-based and cultured alternatives by 2040.

ProVeg works with decision-making bodies, companies, investors, the media, and the general public to help the world transition to a society and economy that are less reliant on animal agriculture and more sustainable for all humans, animals, and our planet.

ProVeg has offices in twelve countries across four continents and is active around the world. ProVeg has permanent observer status with the UNFCCC, special consultative status with ECOSOC, is accredited for UNEA, and has received the United Nations' Momentum for Change Award.

University of Copenhagen

The University of Copenhagen was founded in 1479 by the Danish king Christian 1, and today has 37,500 students and 9,000 employees – of whom some 5,000 are researchers – and revenues of DKK 9.1 billion. Nine Nobel Prizes have been awarded to researchers at the University.

Department of Food Science (UCPH FOOD) carries out research and education that helps solving the global challenges in relation to food with focus on the development of new foods and ways of producing them. Using sophisticated equipment, Future Consumer Lab (FCL) investigates the determinants of consumer transition towards greener food choices, sensory preferences, and evaluates the effectiveness of behavioural interventions supporting this transition.

Ghent University

Ghent University is a top-100 university, founded in 1817, and one of the major universities in Belgium, with more than 47,000 students and 15,000 employees. The 11 faculties offer more than 200 courses and conduct in-depth research within a wide range of scientific domains. The Department of Agricultural Economics studies social and socio-economic aspects related to food, agriculture and the sustainable use of natural resources. The research conducted by the division of Agri-food Marketing and Chain Management typically consist of multi-disciplinary collaborations, by which we aim to valorize innovations/technologies and provide socio-economic evidence to the quadruple helix (chain actors from farm to fork; policy makers; researchers; and the community).

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