Vegetarisk Forening

DEMAND FOR ORGANIC PLANT-BASED FOODS AMONG FLEXITARIAN, VEGETARIAN AND VEGAN CONSUMERS IN PORTUGAL

INSPIRATIONAL PAPER

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The Vegetarian Society of Denmark, 2022

Demand for organic plant-based foods among flexitarian, vegetarian and vegan consumers in Portugal

Contents

Introduction

The purpose of this inspirational paper is to present the preferences of Portuguese flexitarian, vegetarian and vegan consumers in organic and organic plant-based foods (in the following, the term ‘the green consumer segments’ is used when these three consumer groups are mentioned collectively).

The inspirational paper will be used as a basis for a dialogue with buyers in Portugal and to equip Danish organic plant-based producers for exports to the Portuguese market. The inspirational paper thus has a dual purpose and also aims to contribute to increasing the level of knowledge about the green consumer segments in Portugal in general.

The inspirational paper is based on 494 responses among the green consumer segments, distributed on 33% respondents who eat vegan, 30% respondents who eat vegetarian and 37% respondents who eat flexitarian[1]. The gender distribution for the green consumer segments is 84% women, 15% men and 1% binary, while the age distribution is 46% for 13-34-year-olds and 35-55-year-olds and 8% for respondents aged over 55.

Results and conclusions

The green consumer segments in Portugal have a high organics share. If we look at the green consumer segments with an organic share of at least 20%, this constitutes 77%. Approx. 1/3 of the green consumer segments state that they have an organic share of between 60-100%, while just under 25% has an organics share of between 40-59% and just under 20% have an organics share of between 20-39%.

For the highest organics share of 80-100%, the share is 7-11% among the green consumer segments.

For the second highest share of 60-79%, persons who eat flexitarian have the highest share of organics purchases of 25% among the green consumer segments. The largest organics share across the green consumer segments is in the range of 40-59% with 25-29%.

The fact that the figure is high in Portugal shows that organics plays an important role when the green consumer segments make their food purchases. It is thus a point that organics should preferably be available in all food categories, also to get more consumers to raise their organics percentage.
Overall, 37% and 32% of the green consumer segments are willing to pay up to 10% or 11-20% extra for organics, respectively, while only 10% are not willing to pay more for

[1] The flexitarian consumer segment consists of persons who have stated that they eat vegetarian supplemented with fish as well as persons who eat meat and/or fish up to 2-3 days a week.

organics. Among the green consumer segments, about 87% are thus willing to pay more for organics, which indicates that the green consumer segments want organics.

Among respondents who eat flexitarian, 40% and 33% are willing to pay up to 10% and 11-20% extra for organics, respectively, while the figure for persons who eat vegetarian is 35% and 29%, respectively, and the figure for people who eat vegan is 35% and 34%, respectively.

The green consumer segments state strong support across the various statements (86-99%), except for ‘securing clean groundwater’, and the statements can therefore also be regarded as being usable in connection with the promotion of organic (plant-based) products.

The greatest support among persons who eat flexitarian is for the statements ‘Animal welfare’ (98%), ‘Food safety’ (97%) and then ‘Looking after nature and the environment’ (95%).

The greatest support among persons who eat vegetarian is for the statements ‘Animal welfare’ (99%) and ‘Looking after nature and the environment’ (99%) and ‘Food safety’ (96%).

The greatest support among persons who eat vegan is for the statements ‘Animal welfare’ (99%), ‘Looking after nature and the environment’ (98%) and ‘Food safety’ (95%).

Based on the green consumer segments’ attitude to the listed reasons for buying organic products, it becomes clear that the reasons ‘Organic production protects nature, the environment and groundwater’ rank highest (60-69%) together with ‘You avoid pesticides when buying organic foods’ (62-65%). Most of the green consumer segments thus state two ‘classic’ reasons for organics as the reasons why they buy organic products, and they may therefore be relevant to highlight vis-à-vis the green consumer segments when organic foods are to be sold to them.

For respondents who eat flexitarian, the highest number state ‘climate/environment/sustainability’ (63%), ‘health’ (61%) and then ‘animal ethics’ (56%). For persons who eat vegetarian, the reasons are distributed on ‘animal ethics’ (90%), followed by ‘climate/environment/sustainability’ (77%) and ‘health’ (63%). For persons who eat vegan, most respondents have chosen ‘animal ethics’ (96%), followed by ‘climate/environment/sustainability’ (75%) and ‘health’ (64%). Persons who eat vegetarian and vegan, respectively, thus have a nearly identical distribution in this survey.
74-85% of the green consumer segments think that a national and European labelling scheme is ‘very important’ or ‘important’. The figure for a vegan labelling scheme is 97% (‘Very important’ or ‘Important’) among respondents who eat vegan, while the figure is 66% for respondents who eat flexitarian. The figure for a vegetarian labelling scheme is

89% ('Very important' or 'Important') among respondents who eat vegetarian, while the figure is 72% for respondents who eat flexitarian ('Very important' or 'Important'). Export companies will presumably be able to create added value with both veg labelling and organic labelling and it means that they meet the needs of all customers in the green consumer segments.

Across the green consumer segments, there is least satisfaction with the range in 'organic plant-based breads and cakes' (30-36%), 'organic processed products as alternatives to meat' (29-42%) as well as 'organic plant-based toppings' (19-28%) and 'organic plant-based ready meals' (13-22%). Increasing the degree of satisfaction in these product categories could thus be relevant to look into for Danish export companies.

As an overall group, 95% in the green consumer segment find it 'Very important' or 'Important' that plant-based foods are as natural and as little processed as possible. In the green consumer segment, between 96 and 99% find it 'Very important' or 'Important' that plant-based foods are as natural and as little processed as possible. This is thus something that the green consumer segments in Portugal find very important when buying plant-based products. It may be useful information for food producers in relation to communication about plant-based products that this is also an important parameter for the green consumer segments when they buy foods.

Across the green consumer segments, over 70% state that they 'Almost never' or 'Never' shop in discount supermarkets and the same applies to online supermarkets. Across the green consumer segments, more than 70% respond that they shop in supermarkets weekly, while, across green consumer segments, around 60% shop in specialty stores 'weekly' or 'monthly'. In the present survey, no significant differences in shopping locations and frequencies are seen across the green consumer segments. Based on the shopping places of the green consumer segments, it would be advantageous to start with supermarkets and specialty stores in relation to the export part.

Recommendations

Based on this consumer survey among the flexitarian, vegetarian and vegan consumer segments in Portugal, where there is a high organics share of 77% for more than 20% organics and a willingness to pay up to 20% more for organics, Portugal could be an interesting market for export of organic plant-based foods.

However, it has not been possible to capture dissatisfaction with the range of organic plant-based products among the green consumer segments, and a mapping of this area will therefore be relevant. However, a high share (43-51%) of the green consumer segments state that they do not buy ready meals, which could be relevant to explore further. The green consumer segments also want their plant-based foods to be as little processed as possible. This is positive, as organic plant-based foods can be less processed, so that the degree of processing can itself also be seen as a competitive parameter for companies offering organic plant-based foods.

Communicative means

As the green consumer segments express strong support across the various statements that embrace organics (86-99%), the statements will presumably be usable in connection with the promotion of organic (plant-based) products.

In addition, the green consumer segments have different motives for eating the way they do, for example climate/environment/sustainability, animal ethics and health. Knowledge about the motives of the green consumer segments can thus contribute to sharpening organic plant-based companies' marketing to these groups.

Most of the green consumer segments state the reasons 'Organic production protects nature, the environment and groundwater' (60-69%) and 'You avoid pesticides when buying organic foods' (62-65%). Most of the green consumer segments thus state two 'classic' reasons for organics as the reasons why they buy organic products, and they may therefore be relevant to highlight vis-à-vis the green consumer segments when organic foods are to be sold to them.

Strengthening and increasing Danish organic plant-based exports also require that food producers have knowledge of the different countries' rules for these foods, including the requirements from the retail chains that the producers want to access. This can be a big task, and different stakeholders, including the Danish Ministry of Foreign Affairs and Organic Denmark, are therefore trying to help producers with this knowledge and support companies' access to different export markets.

The marketing of organics is something that must be continuously explored and strengthened, as the benefits of organics are not necessarily known to all consumer segments or consumers need to be reminded of what organics entails. How and in what way the producers can best market their products and messages on, for example, the packaging are thus elements that it will be advantageous to develop – including whether some information can advantageously be provided via a QR code and not necessarily on the packaging.
In addition, many consumers will probably continue to associate organics with a high price, and pricing is therefore also a central factor and that organic plant-based foods can compete on price. The location of organic plant-based products in supermarkets and online is also a key element, as many consumers make their purchase decisions while they are shopping.

A highlighting of organics, such as organic plant-based products, as a premium product that offers consumers a lot on the sustainability barometer and that can therefore also warrant a (slightly) higher price is thus a communicative tool that producers and export delegations should keep in mind.

Organic purchases among green consumer segments

Figure 1 – Organic share of food purchases among green consumer segments

How large a share of your purchases are organic? (certified organic)	Number	Percentage distribution
Approx. 80-100%	46	9
Approx. 60-79%	115	24
Approx. 40-59%	131	27
Approx. 20-39%	81	17
Less than 20%	69	14
Do not buy organic products	7	1
Don't know	36	7
Total	**485**	**100**

Approximately 1/3 of the green consumer segments state that they have an organic share of between 60-100%, while just over 25% have an organics share of between 40-59%% and just under 20% have an organics share of between 20-39%.

The green consumer segments in Portugal have a high organics share. If we look at the green consumer segments with an organic share of more than 20%, this constitutes 77%, while the figure is 94% in Denmark.[2] The fact that the figure is high in Portugal shows that organics plays an important role when the green consumer segments make their food purchases. It is thus a point that organics should preferably be available in all food categories, also to get more consumers to raise their organics percentage.

If we look at the green consumer segments divided into whether they eat flexitarian, vegetarian or vegan, they are distributed as follows in the figure below.

Figure 2 – Organic food purchases among green consumer segments, broken down by dietary preferences

Dietary preferences and organics purchases	Approx. 80-100%	Approx. 60-79%	Approx. 40-59%	Approx. 20-39%	Less than 20%	Do not buy organic products	Don't know	Total
Vegan	11% (N=18)	22% (N=36)	27% (N=43)	16% (N=26)	14% (N=23)	2% (N=3)	8% (N=13)	100% (N=162)
Vegetarian	11% (N=16)	23% (N=34)	29% (N=43)	17% (N=25)	11% (N=16)	1% (N=2)	7% (N=10)	100% (N=146)

[2] Dansk Vegetarisk Forening 2021: Den plantebaserede forbrugeranalyse (The Vegetarian Society of Denmark 2021: Plant-based Consumer Analysis)

Flexitarian	7% (N=12)	25% (N=45)	25% (N=45)	17% (N=30)	17% (N=30)	1% (N=2)	7% (N=13)	100% (N=177)

For the highest organics share of 80-100%, the share is 7-11% among the green consumer segments.

For the second highest share of 60-79%, persons who eat flexitarian have the highest share of organics purchases of 25% among the green consumer segments. The largest organics share across the green consumer segments is in the range of 40-59% with 25-29%. In the range of 20-39%, the level among the green consumer segments is 16-17%. Only 1-2% of the green consumer segments state that they do not buy organic products at all.

Overall, the figure shows that the green consumer segments, across dietary preferences, have a relatively uniform organics share, although the group of flexitarians is slightly higher in relation to an organics share of 60-79%. The flexitarians' high share of organic food purchases is important information, as these constitute a larger group of consumers than persons who eat vegetarian and vegan.

Willingness to pay for organics

One thing is how large an organics share the green consumer segments state that they buy, another is how much they are willing to pay for organics. This is important information when introducing organic products in the market.

Overall, 37% and 32% of the green consumer segments are willing to pay up to 10% or 11-20% extra for organics, respectively, while only 10% are not willing to pay more for organics. Among the green consumer segments, about 87% are thus willing to pay more for organics, which indicates that the green consumer segments want organics. Below, the willingness to pay is presented for each of the three consumer segments.

Figure 3 – Willingness to pay for organics among green consumer segments

Dietary preferences	No	10% extra	11-20% extra	21-30% extra	31-40% extra	41-50% extra	+ 50% extra	Don't know	Total
Vegan	10% (N=15)	35% (N=50)	34% (N=49)	10% (N=14)	4% (N=6)	4% (N=6)	1% (N=1)	2% (N=3)	100% (N=144)
Vegetarian	11% (N=14)	35% (N=46)	29% (N=38)	13% (N=17)	2% (N=3)	3% (N=4)	2% (N=3)	6% (N=8)	100% (N=133)
Flexitarian	6% (N=10)	40% (N=64)	33% (N=53)	8% (N=12)	4% (N=7)	3% (N=5)	1% (N=2)	4% (N=7)	100% (N=160)

Only very few respondents in the green consumer segments state that they *do not* want to pay more for organics (6-11%), although there are also only few respondents who want to pay more than 21-30% extra for organics (from 8-13%).

Among respondents who eat flexitarian, 40% and 33% are willing to pay up to 10% and 11-20% extra for organics, respectively, while the figure for persons who eat vegetarian is 35% and 29%, respectively, and the figure for people who eat vegan is 35% and 34%, respectively.

Among the green consumer segments, there is thus a willingness to pay for organic food products, although the maximum level is 20% more than for conventional products. This knowledge can be used as an overall guideline for pricing of organic foods, if they are particularly aimed at the green consumer segment.

Attitude to organics among green consumer segments

The four organic principles that form the basis of Organic Denmark's work are: The Health principle, the Ecology principle, the Fairness principle and the Care principle[3]. In this survey, we have tried to approach the green consumer segments' attitudes to a number of statements that organics embraces. We have also asked about a number of other statements that may be of importance when the green consumer segments make their food purchases, for example local products.
The purpose of this question has been to establish the green consumer segments' attitude to a number of statements which embrace organics without mentioning organics explicitly. Also with a view to such statements being used by producers to market their organic products, and the same applies to retail chains.
The statements included in the survey are the following:

Figure 4 – Statements

Securing clean groundwater
Avoiding pesticides
Looking after nature and the environment.
Safeguarding biodiversity
Food safety
Animal welfare
Fewer additives
Local products

For each statement, the green consumer segments could mark on a scale from 1 to 5 how important/not important this statement is to them.

[3] https://okologi.dk/vi-arbejder-for/vaerdigrundlag/

The percentage distribution for each statement among the green consumer segments that have responded 'Very important' or 'Important' is shown in Figure 5 below.

Figure 5 – Distribution on statements among green consumer segments

Statements	Green consumer segments	
Securing clean groundwater	Vegan (N=106)	66%
	Vegetarian (N=100)	61%
	Flexitarian (N=116)	63%
Avoiding pesticides	Vegan (N=136)	84%
	Vegetarian (N=132)	90%
	Flexitarian (N=154)	86%
Looking after nature and the environment	Vegan (N=159)	98%
	Vegetarian (N=146)	99%
	Flexitarian (N=171)	95%
Safeguarding biodiversity	Vegan (N=149)	93%
	Vegetarian (N=139)	95%
	Flexitarian (N=164)	90%
Food safety	Vegan (N=153)	95%
	Vegetarian (N=140)	96%
	Flexitarian (N=173)	97%

Animal welfare	Vegan (N=160)	99%
	Vegetarian (N=146)	99%
	Flexitarian (N=174)	98%
Fewer additives	Vegan (N=146)	90%
	Vegetarian (N=134)	91%
	Flexitarian (N=168)	93%
Local products	Vegan (N=140)	86%
	Vegetarian (N=131)	89%
	Flexitarian (N=166)	92%

The green consumer segments state strong support across the various statements (86-99%), except for 'securing clean groundwater', and the statements can therefore also be regarded as being usable in connection with the promotion of organic (plant-based) products.

The greatest support among persons who eat flexitarian is for the statements 'Animal welfare' (98%), 'Food safety' (97%) and then 'Looking after nature and the environment' (95%).

The greatest support among persons who eat vegetarian is for the statements 'Animal welfare' (99%) and 'Looking after nature and the environment' (99%) and 'Food safety' (96%).

The greatest support among persons who eat vegan is for the statements 'Animal welfare' (99%), 'Looking after nature and the environment' (98%) and 'Food safety' (95%).

The value that have the least overall support is 'Securing clean groundwater' (61-63%). A probable reason for the low support for the statement 'Securing clean groundwater' is that the question does not make sense in a Portuguese context or that the green consumer segments are not aware of this connection.

Reasons for buying organic products among green consumer segments

We have also listed a number of reasons for buying organic products and asked the green consumer segments to indicate which of these reasons they think are relevant to them. The green consumer segments have thus been free to choose how many reasons they found relevant to them. The figure below shows the breakdown on the various reasons. The extent of support for the various reasons can serve as a benchmark for producers in relation to their communication to the green consumer segments.

Figure 6 – Green consumer segments' reasons for buying organic products

Reasons	Dietary preferences
Organic production protects nature, the environment and groundwater	Vegan (N=106) 65%
	Vegetarian (N=101) 69%
	Flexitarian (N=111) 60%
Organic foods are produced with more care	Vegan (N=32) 20%
	Vegetarian (N=38) 26%
	Flexitarian (N=42) 23%
You avoid pesticides when buying organic foods	Vegan (N=105) 65%
	Vegetarian (N=93) 63%
	Flexitarian (N=115) 62%
Organic foods are more climate friendly	Vegan (N=43) 27%
	Vegetarian (N=55) 37%
	Flexitarian (N=55) 30%
Organic foods are healthier	Vegan (N=75) 46%
	Vegetarian (N=72) 49%
	Flexitarian (N=95) 51%
You contribute to better animal welfare when buying organic foods	Vegan (N=47) 29%
	Vegetarian (N=60) 41%
	Flexitarian (N=64) 35%
Organic products taste better	Vegan (N=66) 41%
	Vegetarian (N=54) 37%
	Flexitarian (N=70) 38%

Based on the green consumer segments' attitude to the listed reasons for buying organic products, it becomes clear that the reasons 'Organic production protects nature, the environment and groundwater' rank highest (60-69%) together with 'You avoid pesticides when buying organic foods' (62-65%). However, it may be surprising that the percentage is not higher for the various statements, although this may be due to these statements do not connect with the green consumer segment groups' reasons for buying organic products. Most of the green consumer segments thus state two 'classic' reasons for organics as the reasons why they buy organic products, and they may therefore be relevant to highlight vis-à-vis the green consumer segments when organic foods are to be sold to them.

As only a very small minority of the respondents in the green consumer segments do *not* buy organic products (9 persons), we have chosen not to look further at the reasons for this, as the analysis will be based on too small a database.

Why do the green consumer segments eat the way they do?

To obtain a signpost for why the green consumer segments eat the way they do, we have given them an option to state up to three reasons for this. The purpose of this signpost is that it may be important when new products are to be developed and/or introduced in a new market that you as a producer have knowledge of the consumers' reasons for eating the way they to be able to target the communication or support communication handled by retailers, wholesalers, etc.

The figure below shows the green consumer segments' reasons for eating the way they do.

Figure 7 – Green consumer segments' reasons for eating the way they do.

Reasons	Dietary preferences
Health	Vegan (N=103) 64%
	Vegetarian (N=92) 63%
	Flexitarian (N=112) 61%
Prevention and cure of illness	Vegan (N=25) 15%
	Vegetarian (N=29) 20%
	Flexitarian (N=55) 30%
Animal ethics	Vegan (N=156) 96%
	Vegetarian (N=132) 90%
	Flexitarian (N=103) 56%

Climate/environment/sustainability	Vegan (N=137) 85%
	Vegetarian (N=113) 77%
	Flexitarian (N=117) 63%
Organic foods are healthier	Vegan (N=75) 46%
	Vegetarian (N=72) 49%
	Flexitarian (N=95) 51%
You contribute to better animal welfare when buying organic foods	Vegan (N=47) 29%
	Vegetarian (N=60) 41%
	Flexitarian (N=64) 35%
Organic products taste better	Vegan (N=66) 41%
	Vegetarian (N=54) 37%
	Flexitarian (N=70) 38%

As the figure shows, 'climate/environment/sustainability' (63%) is the most reason that large number of persons who eat flexitarian state, followed by 'health' (61%) and 'animal ethics' (56%). For persons who eat vegetarian, the reasons are distributed on 'animal ethics' (90%), followed by 'climate/environment/sustainability' (77%) and 'health' (63%). For persons who eat vegan, most respondents have chosen 'animal ethics' (96%), followed by 'climate/environment/sustainability' (75%) and 'health' (64%). Persons who eat vegetarian and vegan, respectively, thus have a nearly identical distribution in this survey.

In the questionnaire, we have also listed the reasons 'religion', 'my family's eating habits' and 'I have always eaten like this'. However, these are not included in the figure, as the number of respondents within the green consumer segments who have chosen these is too low to provide a basis for analyses (1-18%).

Based on our knowledge of the green consumer segments' reasons for eating the way they do, there may be different parameters that producers need to take into account and communicate about, including how their product relates to these reasons.

Labelling schemes

In the survey, we have also asked about the green consumer segments' attitudes towards different types of labelling schemes for vegetarian, vegan and organic foods.
The green consumer segments' attitudes, broken down by dietary preferences, are distributed as follows.

Figure 8 – Official vegetarian labelling scheme

Official vegetarian labelling	Very important	Important	Neither nor	Less important	Not important	Don't know	Total
Vegan	23% (N=23)	42% (N=67)	16% (N=26)	4% (N=6)	13% (N=30)	1% (N=2)	100% (N=158)
Vegetarian	52% (N=76)	37% (N=55)	7% (N=11)	1% (N=1)	2% (N=3)	1% (N=1)	100% (N=147)
Flexitarian	30% (N=53)	42% (N=74)	19% (N=33)	3% (N=6)	6% (N=10)	0% (N=0)	100% (N=176)

For persons who eat vegetarian, 89% believe that a vegetarian labelling scheme is 'Very important' or 'Important'. For participants who eat flexitarian, 72% state that a vegetarian labelling scheme is 'Very important' or 'Important', while this applies to 65% of the respondents who eat vegan. Only between 1-13% of the green consumer segments state that a vegetarian labelling scheme is 'Less important' or ''Not important'.

Regarding an official vegan labelling scheme, the green consumer segments' views are shown in the figure below.

Figure 9 – Official vegan labelling scheme

Official vegan labelling	Very important	Important	Neither nor	Less important	Not important	Don't know	Total
Vegan	66% (N=101)	31% (N=48)	6% (N=9)	1% (N=1)	2% (N=3)	0% (N=0)	100% (N=153)
Vegetarian	48% (N=70)	37% (N=54)	12% (N=18)	1% (N=1)	1% (N=2)	1% (N=2)	100% (N=147)
Flexitarian	25% (N=44)	41% (N=72)	24% (N=42)	5% (N=8)	6% (N=10)	0% (N=6)	100% (N=176)

97% of the vegan respondents state that an official vegan label is 'Very important' or 'Important' to them. For flexitarians and vegetarians, this figure is 66% and 85%, respectively. Across the green consumer segments, the figure for the respondents who think it is 'Less important' or 'Not important' is between 7-14%.

For a national organic labelling scheme, the green consumer segments' views are shown in the figure below.

Figure 10 – National organic labelling scheme

National organic labelling scheme	Very important	Important	Neither nor	Less important	Not important	Don't know	Total
Vegan	30% (N=48)	51% (N=82)	12% (N=19)	5% (N=8)	2% (N=4)	0% (N=0)	100% (N=162)
Vegetarian	40% (N=59)	45% (N=65)	10% (N=15)	3% (N=5)	1% (N=1)	1% (N=1)	100% (N=146)

Flexitarian	36% (N=64)	45% (N=79)	13% (N=23)	3% (N=6)	3% (N=5)	0% (N=0)	100% (N=177)

Regarding a national organic labelling scheme, 81% of the respondents who eat flexitarian think that this is 'Very important' or 'Important', while the figure for respondents who eat vegetarian or vegan is 85% and 81%, respectively. Across the green consumer segments, however, only 1-5% find it 'Less important' or 'Not important'.

If we look at a European organic labelling scheme, the green consumer segments' views are shown in the figure below.

Figure 11 – European organic labelling scheme

European organic labelling scheme	Very important	Important	Neither nor	Less important	Not important	Don't know	Total
Vegan	24% (N=38)	50% (N=81)	16% (N=26)	6% (N=10)	4% (N=6)	0% (N=0)	100% (N=161)
Vegetarian	31% (N=45)	48% (N=70)	14% (N=21)	3% (N=5)	1% (N=2)	1% (N=2)	100% (N=145)
Flexitarian	25% (N=44)	51% (N=89)	17% (N=30)	3% (N=6)	3% (N=6)	0% (N=0)	100% (N=175)

76% of respondents who eat flexitarian think that a European organic labelling scheme is 'Very important' or 'Important', while the figure for respondents who eat vegetarian or vegan is 79% and 74%, respectively.

74-85% of the green consumer segments think that a national and European labelling scheme is 'very important' or 'important'. The figure for a vegan labelling scheme is 97% ('Very important' or 'Important') among respondents who eat vegan, while the figure is 66% for respondents who eat flexitarian. The figure for a vegetarian labelling scheme is 89% ('Very important' or 'Important') among respondents who eat vegetarian, while the figure is 72% for respondents who eat flexitarian ('Very important' or 'Important').

Especially for respondents who eat vegetarian and vegan, there is a strong wish for veg labelling (vegetarian or vegan), and they also want an organic labelling scheme. For respondents who eat flexitarian, most want organic labelling, although more than 65% of this group also want veg labelling. Export companies will presumably be able to create added value with both veg labelling and organic labelling and it means that they meet the needs of all customers in the green consumer segments.

Satisfaction with the range of organic and organic plant-based products

To obtain an insight into the green consumer segments' satisfaction or lack thereof with the range of organic foods and organic plant-based foods, we have asked the respondents about a wide range of product categories.

Below, we have included the product categories where the green consumer segments' level of dissatisfaction is overall 25% or more for the categories 'Dissatisfied' or 'Very dissatisfied' (together or separately), and we have also included the category 'Neutral' if it is of 25% or more.

The neutral answer category has been included in the analysis, as we think that it says something about the improvement potential in the product category in question.

The level of dissatisfaction ('Very dissatisfied'/'Dissatisifed') or neutrality of 25% or more has been fixed based on a consideration that this represents a significant improvement potential and thus an export opportunity.

This applies to the following product categories.

Figure 12 – Organic and plant-based grain, flour and breakfast cereals

Grain, flour and breakfast cereals	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	25% (N=35)	41% (N=58)	18% (N=25)	6% (N=9)	4% (N=5)	3% (N=4)	3% (N=4)	100% (N=140)
Vegetarian	21% (N=28)	48% (N=64)	17% (N=23)	9% (N=12)	2% (N=2)	0% (N=0)	3% (N=4)	100% (N=133)
Flexitarian	21% (N=33)	40% (N=63)	25% (N=40)	7% (N=11)	1% (N=1)	3% (N=4)	4% (N=6)	100% (N=158)

Figure 13 – Organic fruit

Fruit	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	23% (N=32)	40% (N=56)	13% (N=18)	17% (N=24)	5% (N=7)	1% (N=2)	1% (N=2)	100% (N=140)
Vegetarian	28% (N=37)	39% (N=51)	13% (N=17)	16% (N=21)	3% (N=4)	0% (N=0)	2% (N=2)	100% (N=132)
Flexitarian	27% (N=42)	41% (N=64)	15% (N=24)	15% (N=23)	1% (N=1)	1% (N=2)	1% (N=1)	100% (N=157)

Figure 14 – Organic vegetables

Vegetables	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	26% (N=37)	39% (N=54)	11% (N=15)	19% (N=26)	5% (N=7)	0% (N=0)	1% (N=1)	100% (N=140)
Vegetarian	33% (N=43)	39% (N=51)	12% (N=16)	14% (N=19)	2% (N=2)	0% (N=0)	1% (N=1)	100% (N=132)
Flexitarian	32% (N=50)	42% (N=65)	12% (N=19)	12% (N=19)	0% (N=0)	1% (N=2)	1% (N=1)	100% (N=156)

Figure 15 – Organic plant-based breads and cakes

Plant-based breads and cakes	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	10% (N=14)	22% (N=30)	20% (N=27)	18% (N=25)	6% (N=8)	4% (N=5)	21% (N=29)	100% (N=138)
Vegetarian	13% (N=17)	23% (N=31)	28% (N=37)	20% (N=27)	4% (N=5)	1% (N=1)	11% (N=14)	100% (N=132)
Flexitarian	6% (N=9)	24% (N=38)	28% (N=44)	16% (N=25)	4% (N=6)	4% (N=7)	17% (N=27)	100% (N=156)

Figure 16 – Organic plant-based beverages and alternatives to dairy products

Plant-based beverages and alternatives to dairy products	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	29% (N=40)	36% (N=50)	16% (N=23)	9% (N=12)	4% (N=5)	3% (N=4)	4% (N=6)	100% (N=140)
Vegetarian	22% (N=29)	47% (N=62)	21% (N=27)	4% (N=5)	0% (N=0)	0% (N=0)	6% (N=8)	100% (N=131)
Flexitarian	20% (N=32)	36% (N=56)	23% (N=36)	6% (N=10)	1% (N=2)	3% (N=4)	11% (N=17)	100% (N=157)

Figure 17 – Organic beans and lentils

Beans and lentils	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	27% (N=40)	32% (N=46)	16% (N=23)	10% (N=15)	5% (N=8)	4% (N=6)	1% (N=1)	100% (N=146)
Vegetarian	23% (N=31)	48% (N=63)	17% (N=23)	9% (N=12)	1% (N=1)	0% (N=0)	2% (N=2)	100% (N=132)
Flexitarian	20% (N=31)	39% (N=62)	20% (N=31)	11% (N=18)	2% (N=3)	3% (N=5)	5% (N=8)	100% (N=158)

Figure 18 – Organically processed products as alternatives to meat

Plant-based alternatives to meat	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total

Vegan	7% (N=11)	22% (N=35)	17% (N=27)	15% (N=25)	6% (N=9)	2% (N=3)	19% (N=30)	100% (N=162)
Vegetarian	5% (N=8)	37% (N=55)	21% (N=31)	11% (N=16)	3% (N=4)	1% (N=1)	12% (N=17)	100% (N=147)
Flexitarian	6% (N=11)	32% (N=59)	22% (N=41)	9% (N=17)	2% (N=3)	2% (N=4)	21% (N=39)	100% (N=185)

Figure 19 – Organic plant-based toppings

Plant-based toppings	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	6% (N=8)	13% (N=18)	17% (N=23)	14% (N=20)	7% (N=10)	4% (N=5)	40% (N=55)	100% (N=139)
Vegetarian	5% (N=6)	23% (N=31)	23% (N=31)	16% (N=21)	2% (N=3)	2% (N=3)	28% (N=37)	100% (N=132)
Flexitarian	4% (N=6)	22% (N=34)	20% (N=31)	12% (N=19)	3% (N=4)	3% (N=5)	37% (N=58)	100% (N=157)

Figure 20 – Organic tofu, seitan and tempe

Tofu, seitan, tempeh	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	32% (N=52)	33% (N=53)	9% (N=14)	6% (N=9)	2% (N=3)	1% (N=1)	4% (N=7)	100% (N=162)
Vegetarian	31% (N=46)	40% (N=59)	12% (N=18)	4% (N=6)	0% (N=0)	0% (N=0)	2% (N=3)	100% (N=147)
Flexitarian	16% (N=29)	35% (N=64)	15% (N=28)	4% (N=7)	1% (N=2)	2% (N=3)	13% (N=24)	100% (N=185)

Figure 21 – Organic plant-based ready meals

Plant-based ready meals	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	Don't know	I do not buy these products	Total
Vegan	4% (N=5)	9% (N=13)	16% (N=23)	11% (N=16)	6% (N=9)	1% (N=2)	51% (N=72)	100% (N=140)
Vegetarian	3% (N=4)	19% (N=25)	19% (N=25)	11% (N=14)	1% (N=1)	4% (N=5)	44% (N=58)	100% (N=132)
Flexitarian	3% (N=4)	19% (N=24)	23% (N=29)	6% (N=7)	4% (N=5)	2% (N=3)	43% (N=55)	100% (N=127)

Across the green consumer segments, there is least satisfaction with the range in 'organic plant-based breads and cakes' (30-36%), 'organic processed products as alternatives to meat' (29-42%) as well as 'organic plant-based toppings' (19-28%) and 'organic plant-based ready meals' (13-22%). Increasing the degree of satisfaction in these product categories could thus be relevant to look into for Danish export companies.

In addition, 28-40% of the green consumer segments state that they never buy 'organic plant-based toppings', whereas this figure is as high as 43-51% for 'organic plant-based ready meals'. One possible explanation for why the green consumer segments state that they do not buy these foods may be 1) that there is currently no sufficient availability (including of a sufficient quality), 2) that the formulation in our questionnaire does not adequately capture these product categories and/or 3) that the food culture in Portugal is different, where you go out and eat or buy take-away to a greater extent instead of preparing ready meals.

A mapping based on visits to Portuguese supermarkets will probably be able to establish some export opportunities within those product categories with the lowest level of satisfaction. Likewise, we as consumers may also find it difficult to demand products that we do not know exist and that can meet an unmapped need or that are better connected with our attitudes to food.

Quality of processed plant-based foods

Our hypothesis is that the more widespread plant-based products become, the more consumers will demand a higher quality, which may concern, among other aspects, the degree of processing of the products. We therefore asked the green consumer segments about the following:

'How important is it for you that processed plant-based foods are as natural and as little processed as possible?'

Figure 22 – Attitudes to degree of processing of plant-based foods

How important is it that plant-based foods are as natural and gently processed as possible?	Very important	Important	Neither nor	Less important	Not important	Total
Vegan	65% (N=95)	30% (N=44)	3% (N=5)	1% (N=2)	0% (N=0)	100% (N=146)
Vegetarian	65% (N=87)	26% (N=35)	8% (N=10)	1% (N=1)	0% (N=)	100% (N=133)
Flexitarian	74% (N=113)	22% (N=34)	3% (N=4)	1% (N=1)	0% (N=0)	100% (N=152)

As an overall group, 95% in the green consumer segment find it 'Very important' or 'Important' that plant-based foods are as natural and as little processed as possible. In the green consumer segment, between 96 and 99% find it 'Very important' or 'Important' that plant-based foods are as natural and as little processed as possible. This is thus something that the green consumer segments in Portugal find very important when buying plant-based products. It may be useful information for food producers in relation to communication about plant-based products that this is also an important parameter for the green consumer segments when they buy foods.

Green consumer segments' shopping places

When we want to export more organic plant-based products to the green consumer segments in Portugal, it is relevant to look at where these consumer segments make their purchases and at what frequency. This is shown in the figure below.

Figure 23 – Green consumer segments' shopping places

Discount supermarkets	**Daily**	**Weekly**	**Monthly**	**Almost never**	**Never**	**Total**
Vegan	1% (N=1)	12% (N=19)	9% (N=14)	27% (N=44)	46% (N=74)	100% (N=162)
Vegetarian	1% (N=1)	10% (N=15)	6% (N=9)	31% (N=46)	46% (N=67)	100% (N=147)
Flexitarian	0% (N=0)	9% (N=17)	9% (N=16)	28% (N=52)	45% (N=84)	100% (N=185)
Supermarkets	**Daily**	**Weekly**	**Monthly**	**Almost never**	**Never**	**Total**
Vegan	11% (N=17)	73% (N=114)	13% (N=21)	2% (N=3)	1% (N=1)	100% (N=156)
Vegetarian	10% (N=15)	74% (N=106)	14% (N=20)	1% (N=2)	0% (N=0)	100% (N=143)
Flexitarian	8% (N=13)	78% (N=135)	13% (N=23)	1% (N=2)	0% (N=0)	100% (N=173)
Specialty stores	**Daily**	**Weekly**	**Monthly**	**Almost never**	**Never**	**Total**
Vegan	2% (N=3)	24% (N=38)	43% (N=67)	26% (N=41)	4% (N=7)	100% (N=156)
Vegetarian	1% (N=2)	27% (N=39)	34% (N=48)	33% (N=47)	5% (N=7)	100% (N=143)
Flexitarian	1% (N=1)	28% (N=48)	33% (N=56)	29% (N=50)	9% (N=16)	100% (N=171)
Online	**Daily**	**Weekly**	**Monthly**	**Almost never**	**Never**	**Total**
Vegan	0% (N=0)	2% (N=3)	23% (N=35)	45% (N=69)	30% (N=45)	100% (N=152)
Vegetarian	0% (N=0)	3% (N=4)	19% (N=27)	50% (N=70)	28% (N=40)	100% (N=141)
Flexitarian	0% (N=0)	4% (N=6)	12% (N=20)	49% (N=83)	36% (N=62)	100% (N=171)

Across the green consumer segments, over 70% state that they 'Almost never' or 'Never' shop in discount supermarkets and the same applies to online supermarkets. Across the green consumer segments, more than 70% respond that they shop in supermarkets weekly, while, across green consumer segments, around 60% shop in specialty stores 'weekly' or 'monthly'. In the present survey, no significant differences in shopping locations and frequencies are seen across the green consumer segments.

As we have not given examples of discount supermarkets and supermarkets in the survey, it may be that a discount supermarket is regarded as a supermarket by some respondents in the green consumer segments, while this is not the case for others. However, the figure shows that the green consumers segments shop primarily in supermarkets and specialty stores, and it would therefore make sense initially to concentrate export initiatives on supermarkets and specialty stores, respectively.

Methodology and reflections

The data collection was done in collaboration with **Associação Vegetariana Portuguesa** in Portugal in the period from 25 July to 22 August 2022. The questionnaire was translated into Portuguese. A total of 539 responses were collected. As the questionnaire survey was conducted among consumers with a relation to Associação Vegetariana Portuguesa, these respondents will probably be consumers with high commitment, which may constitute a bias in the survey.
Below, it is shown how the demographic factors are distributed on dietary preferences as well as dietary preferences crossed with gender and age.

Figure 24 – Dietary preferences

Dietary preferences	Number	Percentage distribution
I eat vegan[4]	162	30%
I eat vegetarian[5]	147	27%
I eat vegetarian supplemented with fish[6]	88	16%
I eat meat and/or fish up to 2-3 days a week[7]	97	18%
I eat meat and/or fish 4-5 days a week[8]	41	8%
I eat meat and/or fish 6-7 days a week[9]	4	1%
Total	**539**	**100%**

In the analysis, we have divided the respondents into the following groups:

Persons who eat vegan
Persons who eat vegetarian
Persons who eat flexitarian (this category includes the persons who have responded that they eat vegetarian supplemented with fish as well as persons who eat meat and/or fish up to 2-3 days a week.)

[4] Wording in the questionnaire: Sou estritamente vegetariano (vegan) - não como nenhum tipo de produto de origem animal
[5] Wording in the questionnaire: Sou ovolactovegetariano - consumo ovos e laticínios mas não como carne (nem peixe)
[6] Wording in the questionnaire: Sou piscitariano - consumo ovos, laticínios e peixe, mas não como qualquer outro tipo de carne
[7] Wording in the questionnaire: Eu como carne e/ou peixe até 2-3 dias por semana
[8] Wording in the questionnaire: Eu como carne e/ou peixe 4-5 dias por semana
[9] Wording in the questionnaire: Eu como carne e/ou peixe 6-7 dias por semana.

Persons who eat meat (the respondents who have stated that they eat meat and/or fish up to 4-5 days or 6-7 days a week), a total of 45 persons, have been excluded from the analysis, as we wish to focus on persons who eat vegan, vegetarian and flexitarian, respectively.

In the analysis, the collective term 'green consumer segments' is used to refer to the respondents who eat flexitarian, vegetarian or vegan, respectively. In total, the green consumer segments consist of 494 persons.

As the green consumer segments have not answered all the questions in the survey (we have chosen to make some of the questions optional), the total number of respondents who have answered each question will vary. However, the number will be shown in each figure.

Only the green consumer segments will be included in Figures 17 and 18 – see below.

Figure 25 – Dietary preferences and gender

Dietary preferences	**Woman**	**Man**	**Non-binary**	**Total**
Vegan	78% (N=127)	21% (N=34)	1% (N=1)	100% (N=162)
Vegetarian	84% (N=123)	15% (N=22)	1% (N=2)	100% (N=147)
Flexitarian	90% (N=166)	10% (N=18)	1% (N=1)	100% (N=185)
Total	**84% (N=416)**	**15% (N=74)**	**4 (N=1)**	**100% (N=494)**

Figure 26 – Dietary preferences and age[10]

Dietary preferences	**13-34 years**	**35-55 years**	**Over 55 years**	**Total**
Vegan	48% (N=78)	46% (N=74)	6% (N=10)	100% (N=162)
Vegetarian	47% (N=69)	45% (N=66)	8% (N=12)	100% (N=147)
Flexitarian	43% (N=80)	48% (N=88)	9% (N=17)	100% (N=185)
Grand total	**46% (N=227)**	**46% (N=228)**	**8% (N=39)**	**100% (N=494)**

Portugal does not form part of the EU project Smart Protein, from which we have been able to access representative data on flexitarians as well as vegetarians and vegans for Netherlands, Germany and France, respectively. Unfortunately, this is not the case here.

[10] The youngest respondent in the green consumer segment is 17 years old.

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