Diversity in food culture and consumption patterns. Survey results from seven European countries

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Preface

This report has been written on the basis of a survey conducted in 2019 in seven European countries: Germany, Italy, Norway, Poland, the UK, France and Spain. The survey was originally carried out as part of the Horizon 2020 project Organic-PLUS (grant agreement No [774340]) and contained a range of topics covering eating patterns, perceptions of food quality, organic food and food practices as well as attitudes towards phasing out certain types of inputs presently used within organic agriculture. The present report is a deliverable within the FOOdIVERSE project where we have made new analysis and focused on data not previously published within the Organic-PLUS project (see Vittersø et al., 2019 for more information about the background and results from the survey).

FOOdIVERSE aims to produce knowledge on how diversity in diets, novel food supply chains and food governance contributes to more organic and sustainable food systems. The project is a cooperation between five European research institutions and coordinated by professor Stefan Wahlen at the Justus-Liebig University Giessen (Germany). The other cooperating institutions are the University of Trento (Italy), The Jagiellonian University in Krakow (Poland), Coventry University (UK) and Oslo Metropolitan University (Norway). The project is co-financed by the NCBR, BMEL, MIPAAF, RCN and DEFRA within the framework of ERA-NET SUSFOOD and ERA-NET CORE Organic Cofund Joint Call program.

This report presents the first empirical results from WP2 “Diversity in food cultures” and will be complemented by focus group case studies in all participating countries. The report is written by Gunnar Vittersø at SIFO/OsloMet together with colleagues Hanne Torjusen and Sabina Kuraj. We thank all partners in the FOOdIVERSE project for their comments and inputs to our initial interpretations of the results. We also thank XX at SIFO/OsloMet for final review and quality check of the report. Finally, ….

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Summary

In this report we have mapped food consumption in Europe with a view to organic, sustainable and local food, based on a survey with more than 15 000 respondents from Germany, Italy, Norway, Polen, the UK, France and Spain. The aim was to have a closer look on the state of dietary diversity as well as consumers perceptions and practices in relation to sustainability of food. What characterizes eating patterns and food consumption and to what extent does food practices vary between groups of consumers and between different countries in Europe?

Globally eating habits are increasingly adhering to a "westernized" type of diet associated with decreasing agricultural diversity and based on few varieties and high intake of animal products (meat, dairy, eggs) and processed food. This development is problematic in light of negative health outcomes as well as sustainability challenges related to climate and bio-diversity. However, social and cultural movements are emerging that may counteract these trends.

The report is structured around three concepts often used within food security research: *utilization,* more specifically frequencies of eating specific food items, *access*, with a view to factors guiding food choices and sustainability practices and *availability* of food.

Food utilization

We found that women eat less meat and more vegetables and fruits than men. The same goes for older age groups compared to younger. They also more frequent have fish than younger age groups. The Mediterranean countries, such as Italy and Spain, seem to have a more varied diet with higher frequencies of vegetables, fruit and fish and relatively lower frequencies of meat, compared to the countries in northern Europe. This may indicate a stronger bio-cultural diversity in the south of Europe, however that may also be connected to variations in natural diversity and access to food.

Access to food

Respondents in countries like Italy, Spain and France to a great extent emphasized qualities such as seasonality and origin of food products. They also valued specific varieties of apples higher than in the other countries and to a greater extent reported buying local and seasonal food. Consumption of local and organic food is often associated with high socio-economic status. We found that this to some extent is true for organic food, but it varies between countries and the income divide is most prominent in the UK and Germany.

Less than one percent of the respondents said they do not eat any food of animal origin, and less than three percent did not have meat or fish other than dairy products and egg. Contrasted to the increasing public attention to veganism and vegetarianism these figures are low. It was some national differences with the highest scores in Germany and the UK on vegetarianism and veganism.

Food availability

Polish and Italian respondents used local markets and direct purchases from the producer more than in the other European countries. It was small gender differences regarding supply channel, while it was significant age-differences in food purchases related to specific sales channels both for ordinary and organic food. For instance, older age groups more frequent answered "not relevant" to some of the supply channels (e.g. online purchase of food), which may indicate that some types of supply channels are less available for elder people.

A deeper understanding of the factors that influences sustainable food practices as well as how and why these practices vary on national and regional scales, needs further analyses supplemented with qualitative methods that will be conducted at later stages within the FOOdIVERSE project.

1. Introduction

The FOOdIVERSE project aims to produce knowledge on how diversity in diets, novel food supply chains and food governance contributes to more organic and sustainable, local food systems. Diversification of diets and food cultures have been seen as measures to counteract negative environmental and health trends in the current food system. A special focus has been attributed to the linkages between healthy and sustainable food and improvements in health outcomes, biodiversity and climate mitigation (IPCC, 2019; EAT-Lancet Commision, 2019) which underscore the importance of understanding the development of sustainable diets within socio-economic and environmental contexts (IPES-food, 2015).

As a contribution to existing research on the relations between food consumption and development of more organic and sustainable local food systems, we will in this report present results from more than 15 000 respondents collected in seven European countries. The survey was conducted as part of the Horizon 2020 project Organic-PLUS and contained a range of topics covering eating patterns, perceptions of food quality and organic food, food practices and attitudes towards phasing out certain types of inputs presently used within organic agriculture (Vittersø et al., 2019). The analyses in this report will consist of descriptive statistics to compare differences across countries regarding several of the topics listed above, and their associations with socio-economic characteristics such as gender, age, education, income and place of residence.

1.2 Diversity in food consumption

Globally, it has been an increasing trend towards a standardized diet (single model), also denounce as a "westernization" of diets, associated with decreasing agricultural diversity based on few varieties and high intake of animal products (meat, dairy, eggs) and processed food (Lachat et al., 2018). While it is widely acknowledged that there is a strong connection between biological diversity and sustainable agricultural practices (agrobiodiversity), less emphasis has been on how food consumption and diversified diets are linked to biocultural- as well as agricultural and natural biodiversity.

Comparative studies have found important differences in food consumption and food cultures across European countries. While the food sector in the north often is characterized by a greater sense of trust and consensus among actors, the southern European countries have lower level of trust and food quality has been a major concern. These differences are among others formed by local geographical, cultural, economic and political conditions (Holm & Gronow, 2019; Amilien, 2011; Halkier et al. 2007; Kjærnes et al. 2007; Kjærnes, 2006; Barjolle and Sylvander 2000).

In addition, scholars have for a long period reported about other trends that move in counter to the westernization of diets that are also shaping food consumption in Europe (Holloway et al. 2007). These countercultural trends have different origins and motivations. Some are connected to the reinvention of local and regional cuisine (Mediterranean Diet, New Nordic diet). Others are linked to new food movements and alternative food networks emphasizing food sovereignty and sustainability in the food system (Grasseni, 2014, Holm & Gronow 2019). These counter movements have in common that they whish to motivate people to seek out new diets and ways of provisioning that take social, cultural, environmental and health issues into consideration. However, some are also questioning these alternative initiatives and their importance, especial concerning social sustainability in the sense that they may uphold social differentiation in food consumption rather than support equity and fair distribution of resources.

Based on the survey data, we will in this report, give a first mapping of food consumption patterns across seven European countries. The survey contains questions about eating and purchasing habits,

food practices and considerations about food. The analysis will put special weight on organic and sustainability of food practices.

We have divided the results in three sections inspired by the food systems model by Ingram (2011) commonly used within food security studies. The model is focusing on three categories of outcomes: food utilization (including nutritional and social value), access to food (including preferences and affordability of food) and availability (including production, distribution and exchange). Thus, chapter 3 will focus on *use* (*food utilization)*, more specifically questions about frequencies of eating specific food items. In chapter 4 we look closer at *access to food*, with a view to factors guiding food choices and sustainability practices. These results will give an impression of how strong some of the countercultural practices (eat organic, local, seasonal, grow own, less meat and food waste) among European citizens are. Chapter 5 will cover *food availability* by mapping the self-reported share of food, including organic food, people get from different provisioning channels. For all three components (utilization, access, availability) we will look at how results are distributed across European countries as well as sociodemographic and socioeconomic variables.

This report functions as an initial mapping of the survey results and it leads to other research questions, such as for instance if there are any connections between dietary diversity and sustainable food practices and to what extent they reflect differences in food cultures? These questions will be addressed in more depth in further research and papers from the project.

2. Data material

The survey was originally developed for the Horizon 2020 project Organic-PLUS[1] and we refer to the project report Vittersø et al. (2029) for a detailed description of the questionnaire and sampling method. Here we will provide a brief overview of the questionnaire, the data material and the characteristics of the respondents.

2.1 Questionnaire

The questionnaire was originally developed to gather data on European citizens views on phasing out contentious inputs in organic agriculture in addition to getting background information on attitudes, preferences and use of organic food. Besides several questions on contentious inputs, the questionnaire contained questions about frequencies of eating a number of different food products, preferences for meat and different quality aspects when buying food. Different types of sustainable food practices were mapped such as: buying local, seasonal and organic food, avoiding food packaging and food transported by plane, reducing meat consumption and food waste. The respondents were also asked about their channels for food purchases, both organic and "ordinary" food, and other food related practices and experiences such as growing own food, harvesting from nature and composting. The survey also contained questions about trust in food system actors, use of food labels and other information channels, as well as attitudes towards organic agriculture and organic food. Results from the questions about preferences and use of organic food, trust in food system actors together with the several questions on contentious inputs in organic agriculture are presented in Vittersø et al. (2019). Several of the other questions that to a little extent were analysed in the Organic-PLUS report will be presented here. The survey was conducted in June 2019 in seven European countries: France, Germany, Italy, Norway, Poland, Spain and the UK. In this report we will compare results between all seven countries, but with a special view to the five FOOdIVERSE countries: Germany, Italy, Norway, Poland and the UK.

[1] Grant agreement No [774340].

2.2 Distribution of the respondents in the data material

A total of 15762 respondents completed the online survey and a sample of between 2072 respondents (lowest) in Norway and 2312 (highest) in Germany was recruited.). The sample has been weighted by gender and age to a achieve representativeness on a national level (Vittersø et al. 2019). It is a rather common bias of online surveys that people with high education and income are overrepresented. In Germany more than 50 % has vocational education because many technical educations are considered vocational, while in other European countries these educations would be associated with a university or college degree. This probably explains the large group of vocational educated individuals in the German sample. In Poland and Norway there is an oversampling from individuals with long university or college degrees. In Germany, Italy and UK the respondents were to a larger extent recruited from a small city or town than in the other countries. In Spain and Poland a relatively large share were recruited form a big city (see appendix).

3. Food utilization

3.1 What types of food are eaten?

The respondents were asked to think about their eating habits last month and mark how often they eat each of the food types that were listed. The survey covered most of the common food items such as meat (also specified on chicken) fish, dairy products (not specified on cheese), potatoes, fruit vegetable (also specified on apples), and wine (not analysed here). Some of the more common foods such as cereals and bread where not included in the survey.

3.1.1 Meat

Figure 2 shows that 45 percent of all respondents in the seven countries had meat 4 times a week or more often. Meat was here defined as any kind and form of meat (including chicken, including steaks, burgers, meaty stews and soups, cold cuts, etc.). More than half of the respondents in Norway (58 percent), UK (53 percent) and Poland (53 percent) had meat 4 times a week or more often which also goes for half of the French respondents (50 percent). To have meat 2-3 times a week was most frequent in Italy (49 percent) and Spain (44 percent). About one in three (36 percent) had meat 2-3 times a week, while one in five (20 percent) ate meat once a week or more seldom. About three percent said they never have meat, and this figure was highest for the UK (6.4 percent) followed by Germany (4.5 percent). In Spain only 1.2 percent of the respondent stated that they never eat meat.

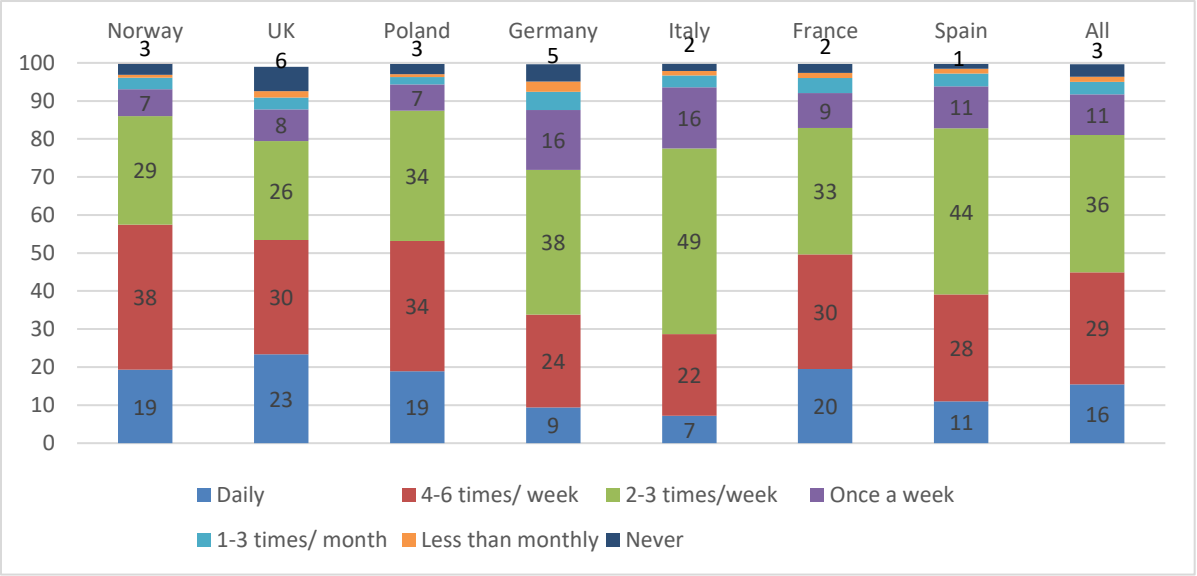

Figure 1 Frequencies of eating meat. Country. Percent.Gender

Figure 3 shows that women have meat less frequently than men. Less than 40 percent of the women state that they eat meat four times a week or more often. For men this figure is 46 percent. In all, 37 percent of both women and men state that they have meat 2-3 times a week. 4.7 percent of the women state that they never eat meat while only 1.6 percent of the men do the same.

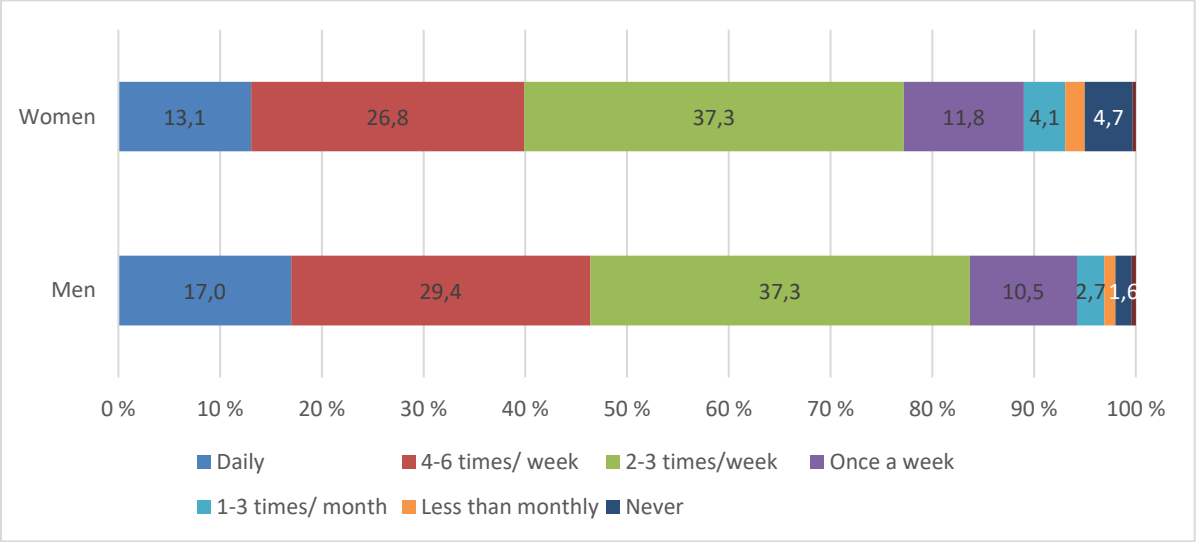

Figure 2 Frequencies of eating meat. Gender. All countries.

Age

Younger have meat both more frequent (every day) and they are also those who more often say that they seldom or never eat meat. Majority of the older (45+) have meat 2-3 times a week or less often. Nearly five percent of those under 30 years state that they never eat meat, while only 1,8 percent aged 60+ do the same.

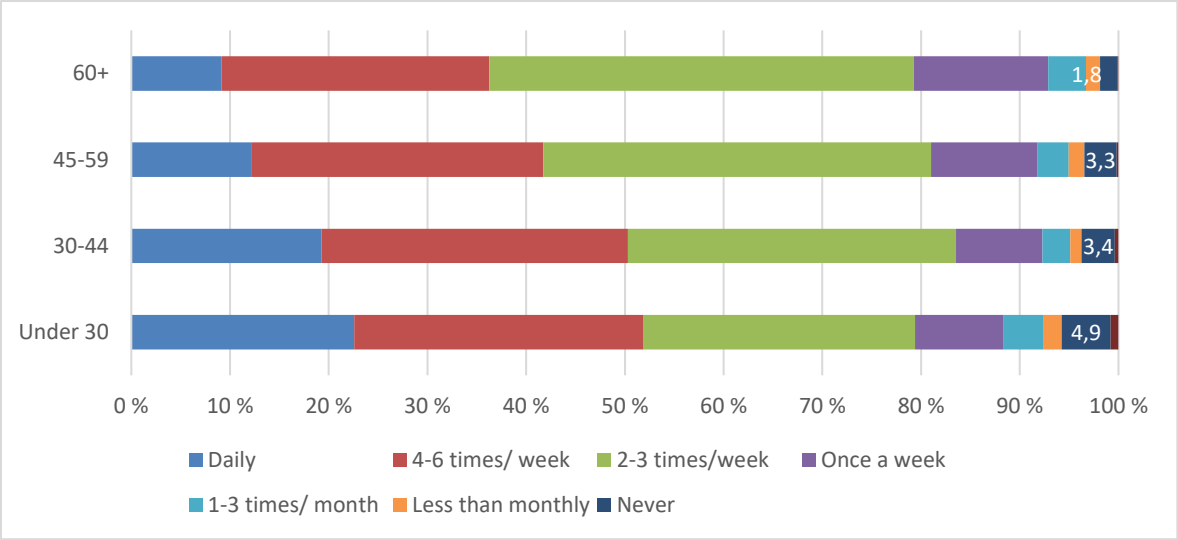

Figure 3 Frequencies of eating meat. Age. Percent.

Education

Those with primary school to a greater extent (21 percent) than the average (16 percent) stated that they used meat daily. In general, it was small differences regarding education on the frequencies of having meat.

Table 1 Frequencies of eating meat. Education. Percent.

	Primary school	Secondary school	Vocational college	University degree (Bachelor)	University degree (Master or higher)	All
Daily	20,6	14,4	14,4	15,8	17,5	15,5
4-6 times/ week	25,6	29,6	27,5	30,3	31,1	29,3
2-3 times/week	34,4	37,8	37,9	34,8	33,7	36,2
Once a week	11,5	10,2	12,3	10,6	9,4	10,7
1-3 times/ month	3,9	3,5	3,3	3,3	3,1	3,3
Less than monthly	0,6	1,2	1,3	1,7	1,4	1,4
Never	2,5	3,0	2,7	3,3	3,6	3,2
Don't know	0,8	0,4	0,6	0,2	0,1	0,4
	100,0	100,0	100,0	100,0	100,0	100,0

3.1.2 Chicken

When looking at chicken as a specific meat item we see a different picture from meat in general. In Spain more than 60 percent said that they have chicken 2-3 times a week or more often. Also in the UK (59 percent) and Poland (56 percent) more than half of the respondents report this frequency. Norway (32 percent) and Germany (35 percent) are in the lower end. Four percent of all respondents state that they never have chicken, most in UK (7 percent) and Germany (6 percent).

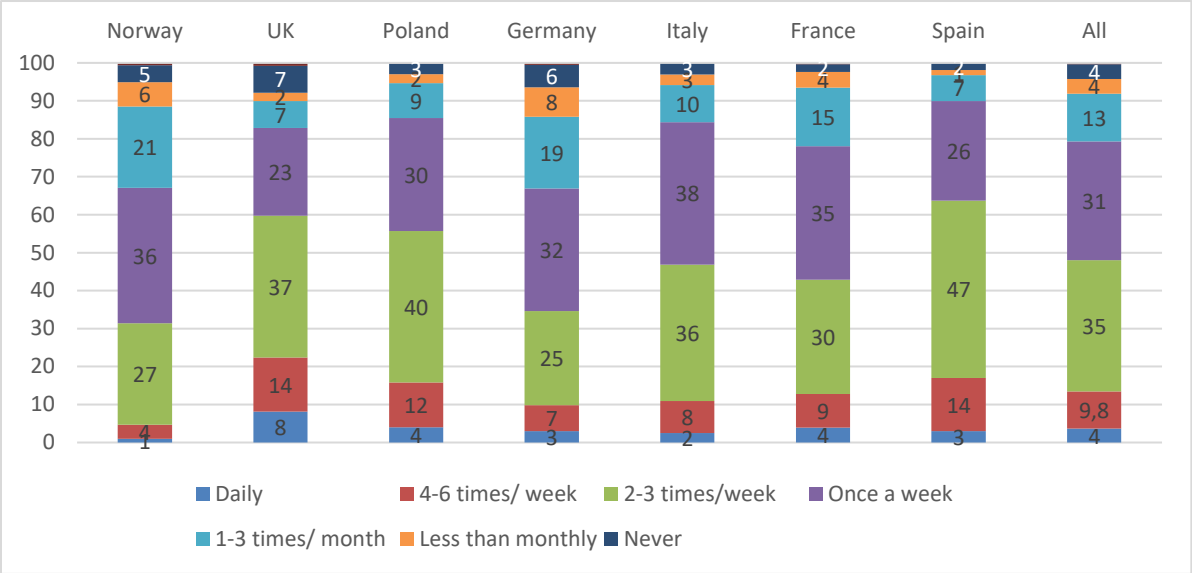

Figure 4 Frequencies of eating chicken. Country. Percent.

Gender

There are only minor gender differences regarding frequencies of eating chicken which also divert from the general pattern for meat.

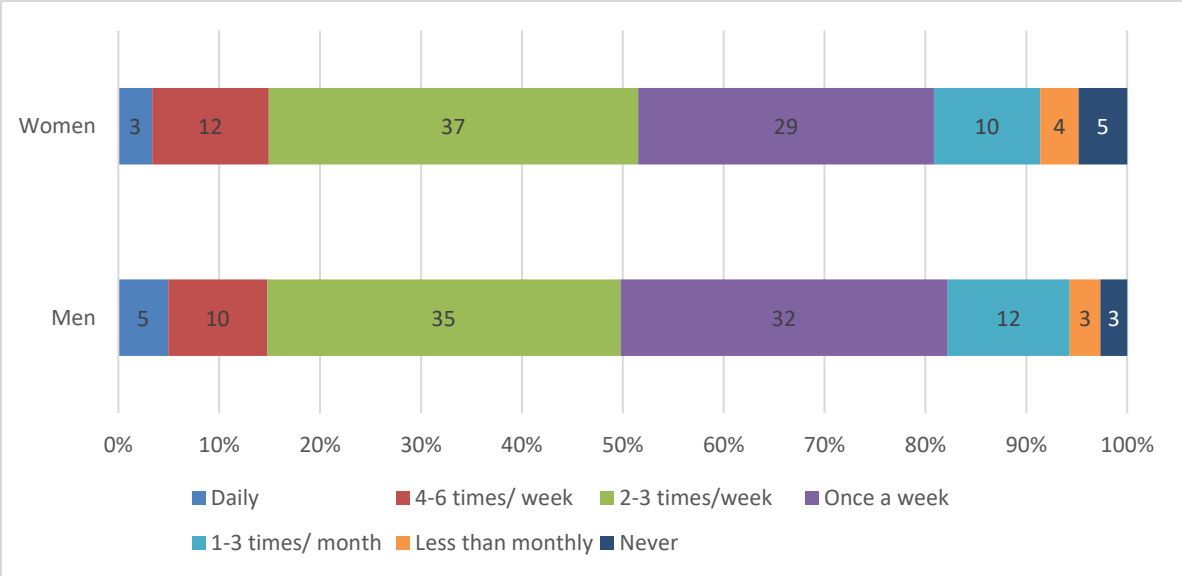

Figure 5 Frequencies of eating chicken. Gender. Percent.

Age

Contrary to gender there are great age differences regarding frequencies of eating chicken between age groups. In the two youngest groups more than half of the respondents stated that they ate chicken twice a week or more often while only one in three of the 60+ reported the same. However, more respondents in the youngest group stated to never eat chicken (6 percent) compared to the oldest group (3 percent).

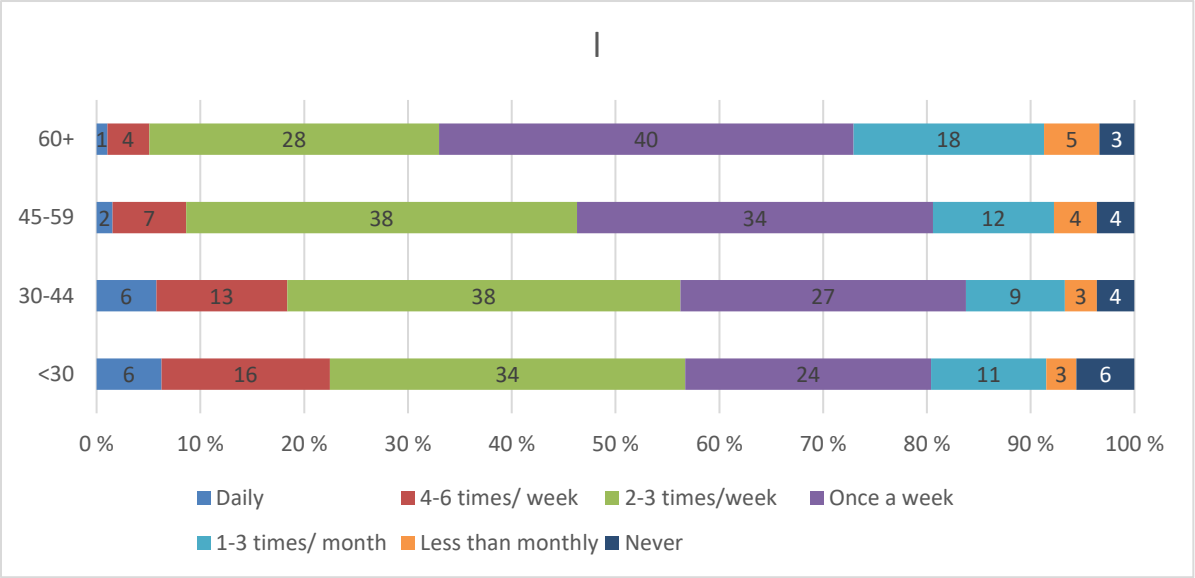

Figure 6 Frequencies of eating chicken. Age. All countries.

3.1.3 Fish[2]

On average 40 percent of the respondents reported that they had been eating fish and seafood 2-3 times a week or more often, however, it was significant differences between the countries. More than half of the Norwegians (56 percent) and Spanish (51 percent) respondents ate fish twice a week or more often, compared to only 20 percent of the Germans. Here 47 percent reported to eat fish and seafood 1-3 times a month or more seldom, and as much as 10 percent stated that they never had fish or seafood. This is in contrast to the Norwegians where just under 3 percent answered to never eat fish or seafood.

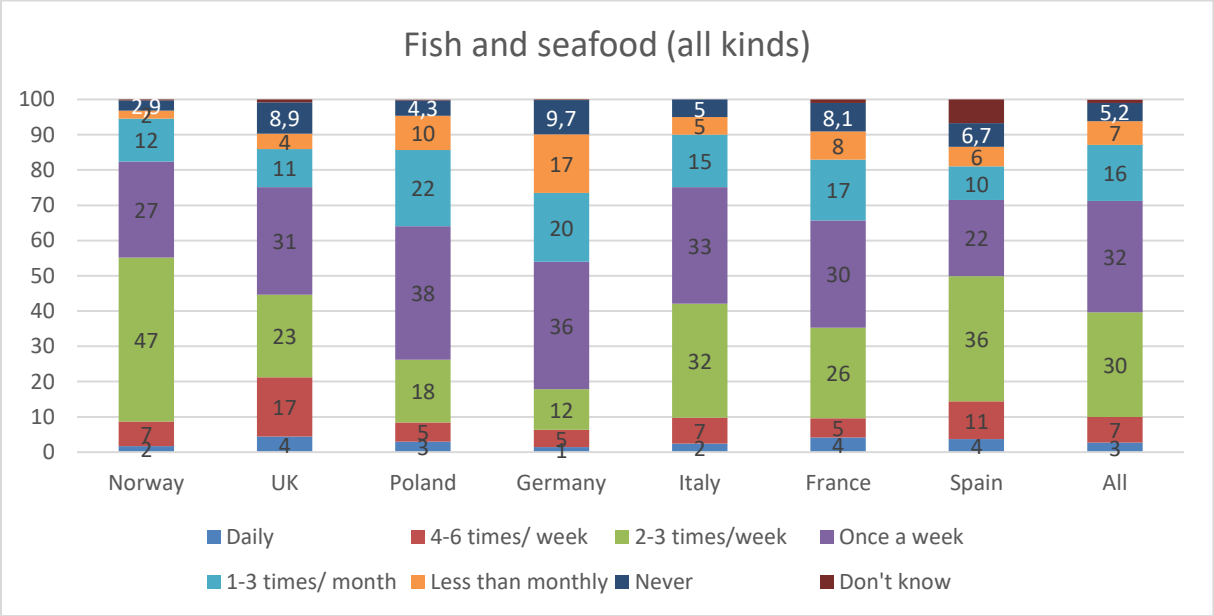

Figure 7 Frequencies of eating fish and seafood. Country. Percent

[2] It was only in Norway and Poland that the whole sample was asked about fish consumption. In the rest of the countries the sample varies between 493-881 respondents.

Gender

Among the most frequent fish and seafood eaters (four times a week or more often) there is little difference between men and women. Slightly more men report eating fish and seafood once a week and 2-3 times a week (61 percent) than women (53 percent). As much as 17 percent of women compared to 11 percent of men stated that they eat fish and seafood less than monthly or never.

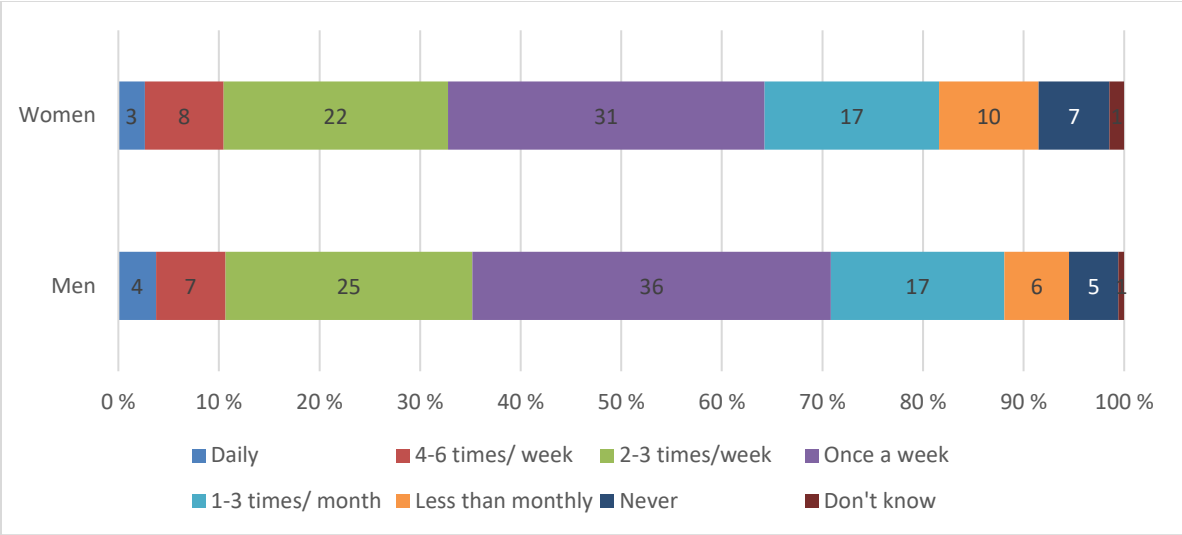

Figure 8 Frequencies of eating fish. Gender. Percent

Age

Slightly less respondents in the two oldest age categories (9 and 7 percent) said to have fish and seafood more often than four times a week, compared to those under 30 (12 percent). However, this changes for the frequencies once- twice and three times a week, where the age groups for 60+ and 45-59 have the highest scores with 68 and 66 percent respectively, compared to only 52 percent among those under 30. As much as nine percent of the youngest stated that they never eat fish and seafood.

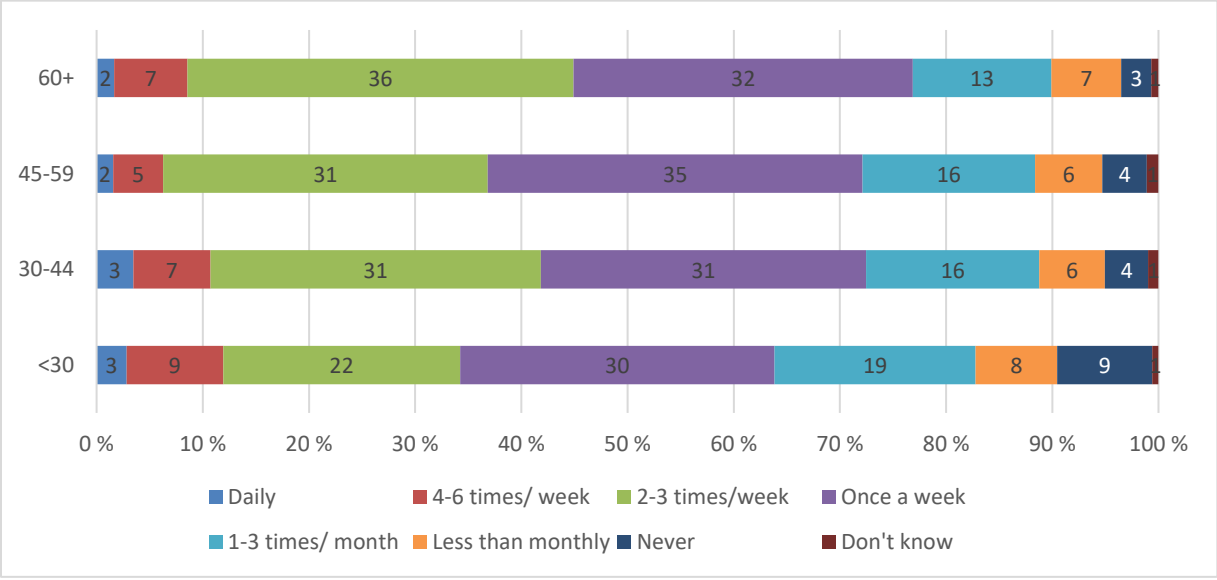

Figure 9 Frequencies of eating fish. Age. Percent

3.1.4 Fresh milk, yoghurt etc.[3]

More than 70 percent in Spain and the UK state that they have some kinds of dairy products (cheese not included) 4-6 days a week or more frequent and as much as half of the respondents in these countries consumed this on a daily basis. In Germany, at the other end of the scale, only one in three have these dairy products on the table daily and just over half of the respondent stated that they use these foods more often than four days a week.

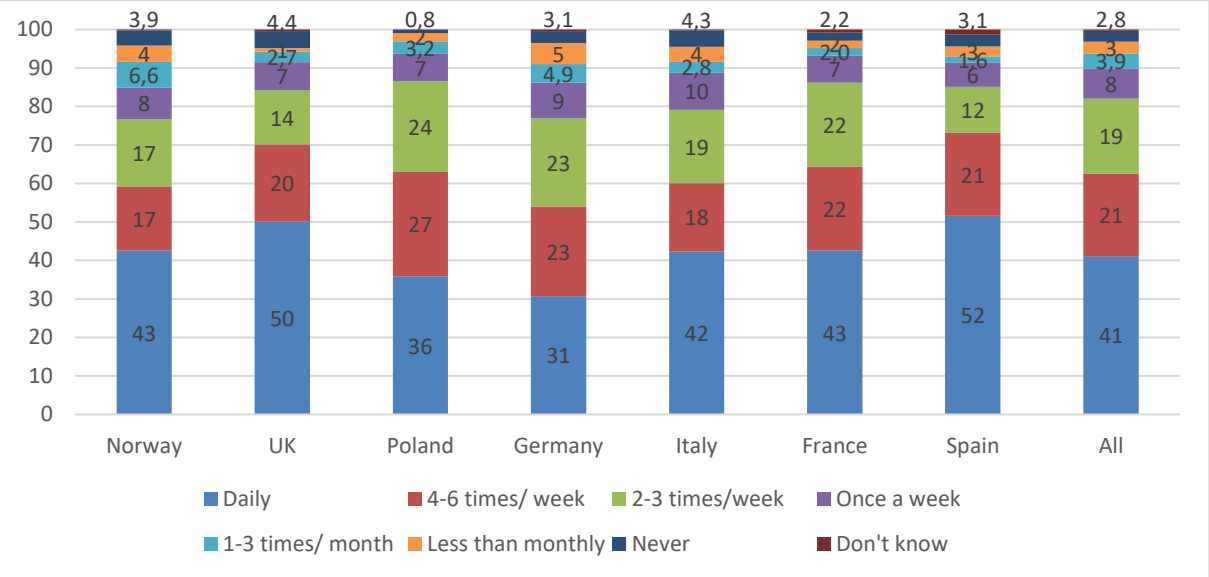

Figure 10 Frequencies of fresh milk, yoghurt etc. Country. Percent

Gender

It was slightly more women (66 percent) than men (60 percent) that used these dairy products as frequent as 4 times a week or more.

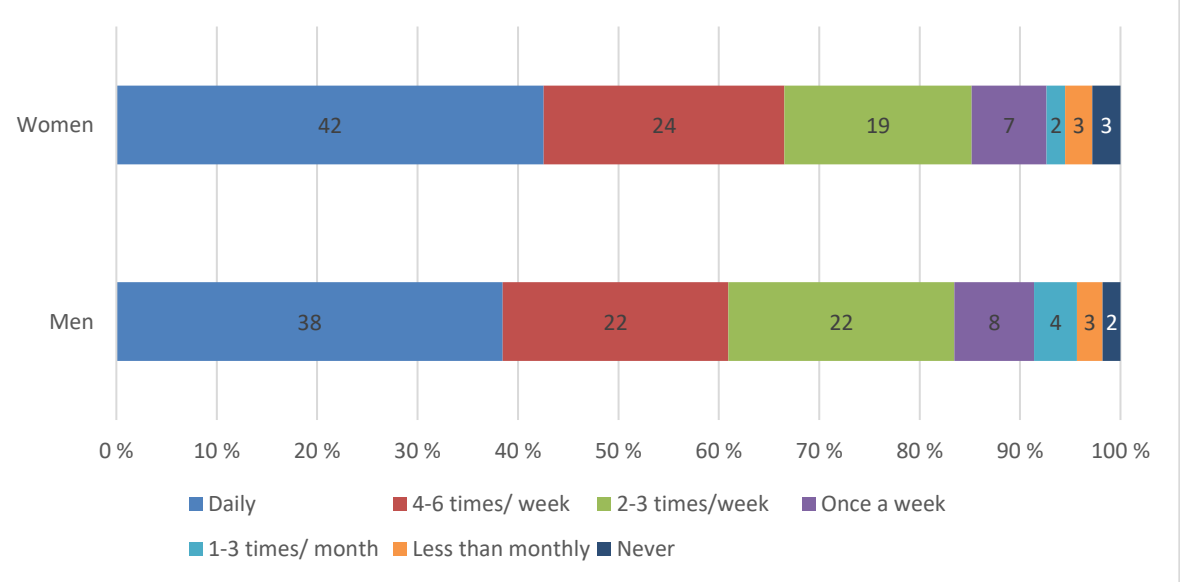

Figure 11 Frequencies of fresh milk, yoghurt etc. Country. Percent

[3] Only Norway and Poland that all respondents were asked this. Number of respondents in different countries: Norway: N=2073; UK: N=519; Poland: N=2257; Germany: N=491; Italy: N=882; France: N=688; Spain: N=684.

Age

The eldest age group, 60+, reported the highest frequency with two in three having dairy products as much as 4 times a week or more often, and more than half on a daily basis. This is in contrast to the youngest age group, under 30, where only one in three reported to use these products on a daily basis.

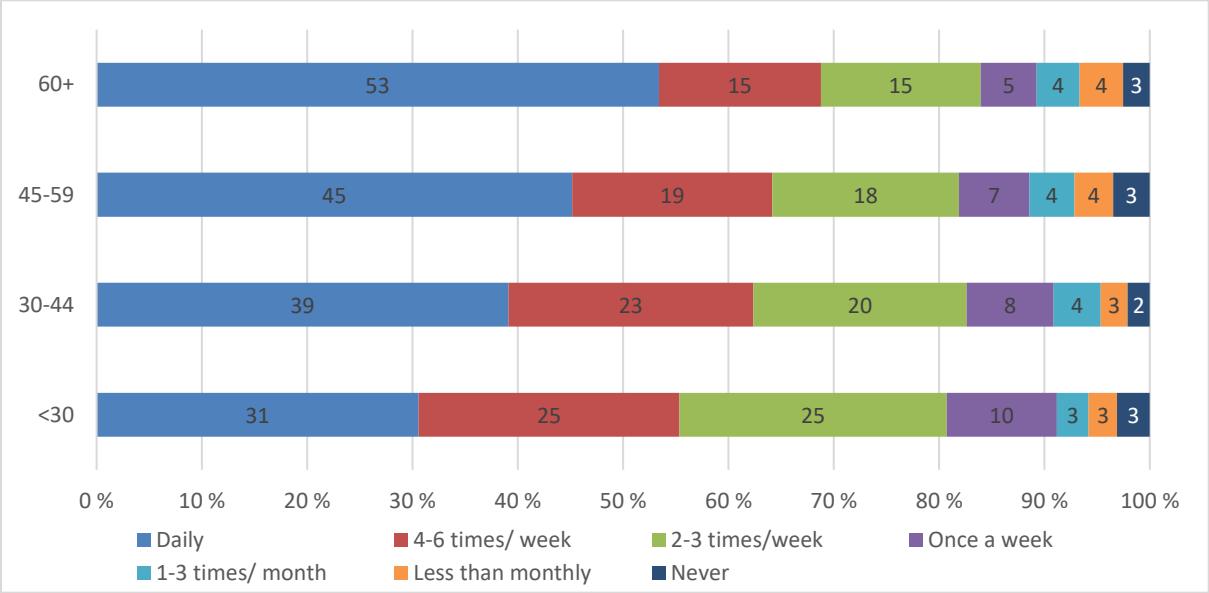

Figure 12 Frequencies of fresh milk, yoghurt etc. Country. Percent

3.1.5 Vegetables[4]

In all, one out of three respondents reported to eat vegetables on a daily basis. Above 40 percent in Poland, Norway and Italy state a daily intake of vegetables, while only 22 percent of the German respondents did the same . Less than one percent stated that they never eat vegetables.

[4] Vegetables: means any kind of vegetables (excluding potatoes) - raw cooked, as ingredient

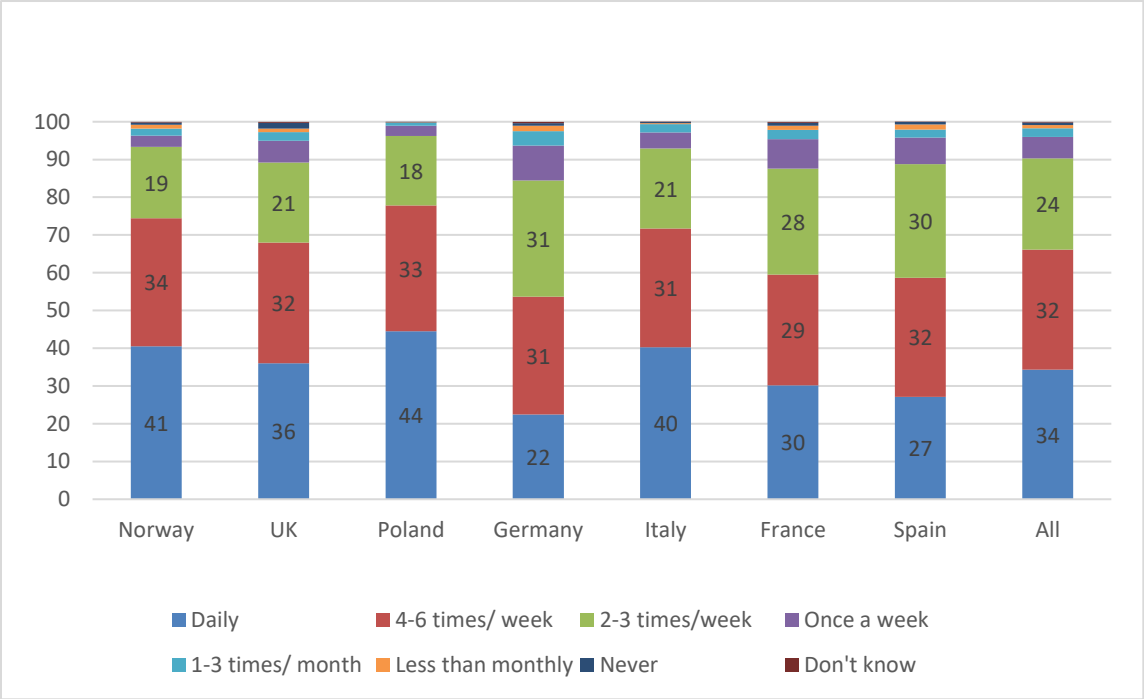

Figure 13 Frequencies of eating vegetables. Country. Percent

Gender

It is a tendency towards a more frequent intake of vegetables among women (38 percent on a daily basis) compared to men (29 percent).

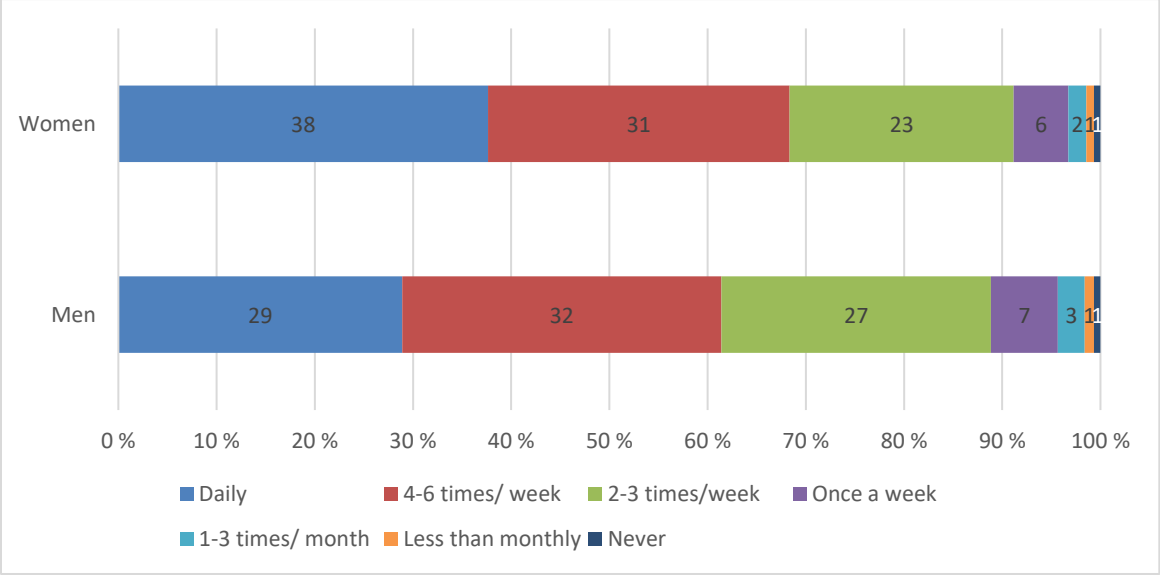

Figure 14 Frequencies of eating vegetables. Gender. Percent

Age

Vegetable intake falls with the age groups from 42 percent daily in the top category to only 28 percent in the group under 30 years. As much as 15 percent in this group eat vegetables once a week or more seldom and two percent reported to never eat vegetables.

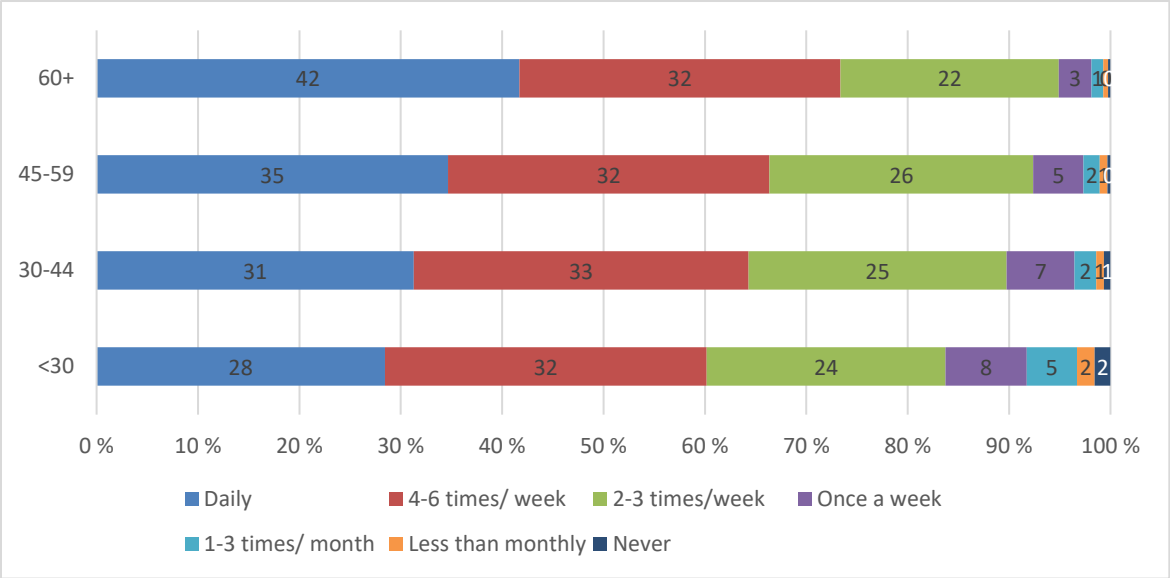

Figure 15 Frequencies of eating vegetables. Age. Percent

Education

Daily intake of vegetables increased with the level of education, and especially the highest university degree. In this category as much as 43 percent of the respondents reported a daily intake of vegetables. Other European studies find that intake of vegetables and fruits are higher among women than men and increases with education level (Roos et al., 2001; Stea et al., 2020).

Table 2. Frequencies of eating vegetables. Education. Percent.

	Primary school	Secondary school	Vocational college	University degree (Bachelor)	University degree (Master or higher)	All
Daily	31,3	32,2	30,8	34,3	43,4	34,3
4-6 times/ week	32,7	31,6	29,9	33,4	32,6	31,8
2-3 times/week	23,7	26,1	27,1	23,2	19,4	24,2
Once a week	8,2	5,2	7,6	6,1	2,8	5,7
1-3 times/ month	2,3	3,0	2,7	1,5	1,0	2,2
Less than monthly	0,6	1,1	0,9	0,7	0,6	0,9
Never	1,1	0,5	0,8	0,7	0,2	0,7
Don't know	0,3	0,3	0,2	0,1	0,1	0,2
Total	100,0	100,0	100,0	100,0	100,0	100,0

3.1.6 Potatoes

As one of the most important staple foods, especially historically across the European countries, we have chosen to investigate potatoes in more depth. More than 60 percent reported to eat potatoes 2-3 times a week or more frequent. In Poland this figure was as high as 82 percent and more than 40 percent of the polish respondents stated to have potatoes more often than 4 times a week. The UK follow closes to Poland (74 percent 2-3 times a week or more often) and then Spain (68 percent). Just

above half of the French respondents reported to use potatoes twice a week or more often, while the Italians ranks lowest with 45 percent. Very few said they never eat potatoes (1 percent).

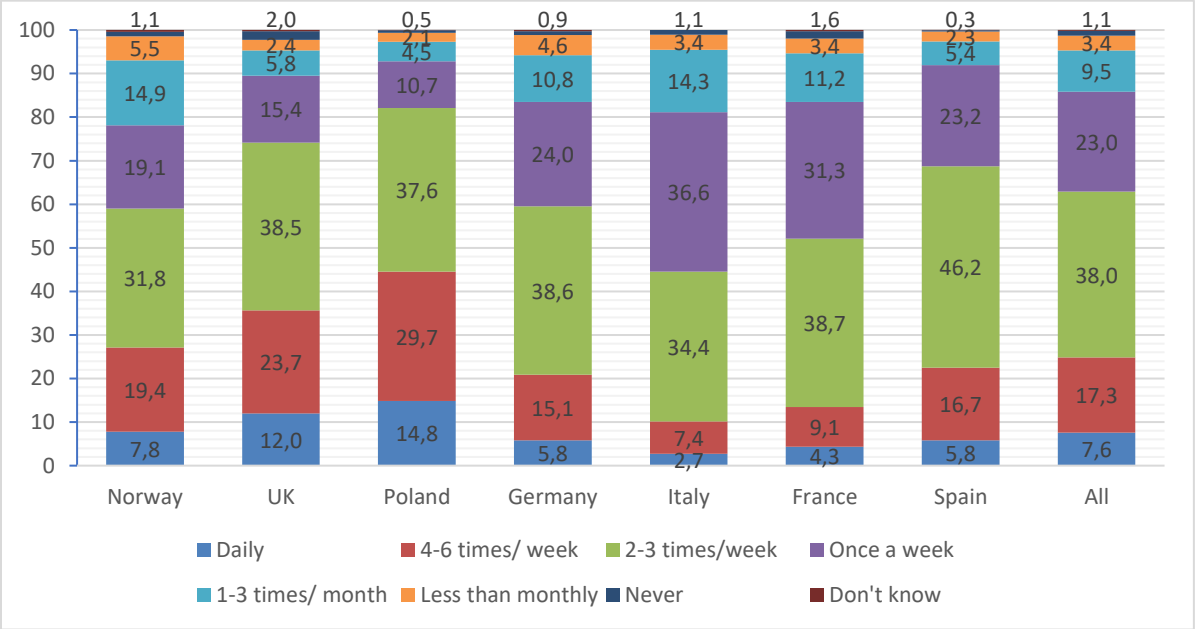

Figure 16 Frequencies of eating potatoes. Country. Percent

Gender

Men report a more frequent intake of potatoes than women. In all 68 percent of the male respondents stated to have potatoes 2-3 times a week or more, compared to women with a total of 60 percent.

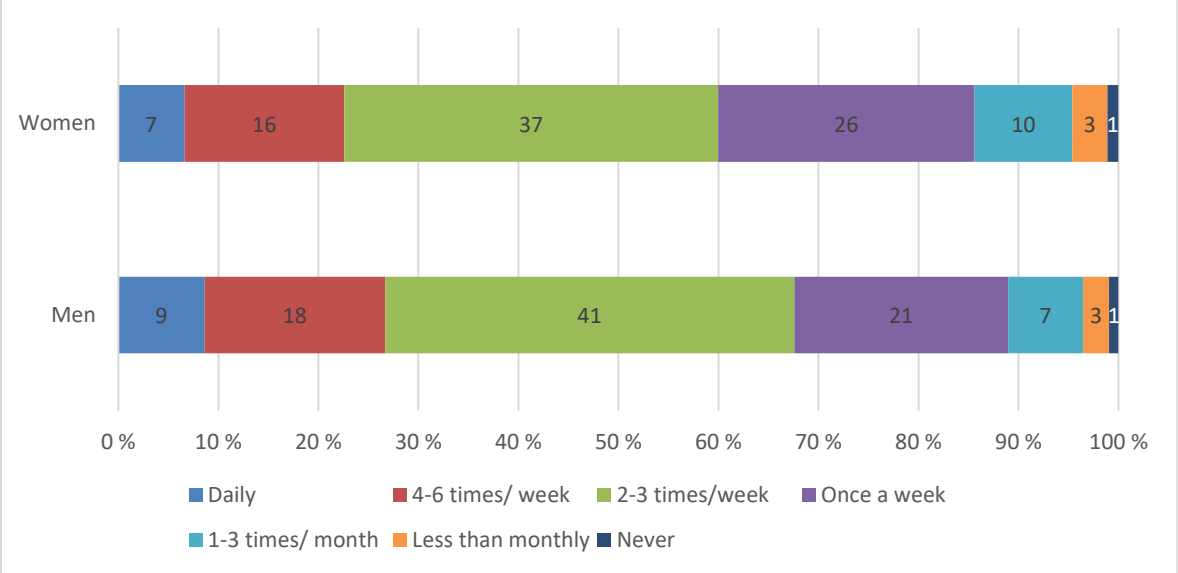

Figure 17 Frequencies of eating potatoes. Gender. Percent

Age

The age group 60+ reported a slightly more frequent intake than the other groups with 29 percent stating that they have potatoes as frequent as 4 times a week or more often.

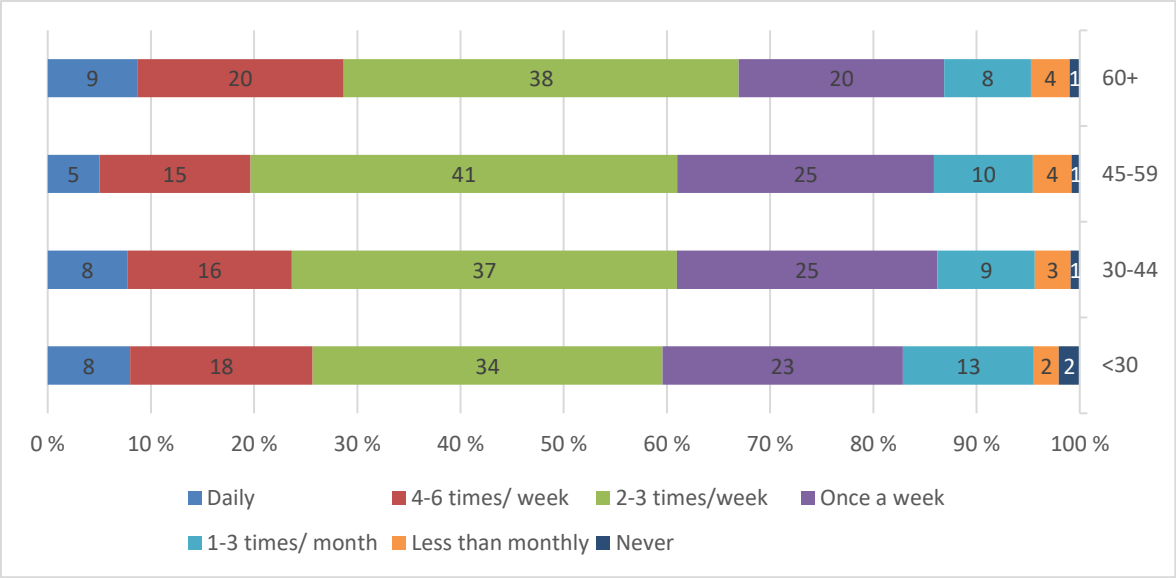

Figure 18 Frequencies of eating potatoes. Age. Percent

Education

It is more common among those with lower level of education (secondary and primary school) to have potatoes on a nearly daily basis. As much as one in three of those with only primary school stated that they eat potatoes 4 times a week or more often.

Table 3 Frequencies of eating potatoes. Education. Percent

	Primary school	Secondary school	Vocational college	University degree (Bachelor)	University degree (Master or higher)	All
Daily	11,5	7,9	7,1	6,2	8,9	7,6
4-6 times/ week	21,1	20,0	14,0	16,3	18,3	17,3
2-3 times/week	33,2	36,4	40,0	40,2	36,8	38,1
Once a week	21,1	21,8	25,0	23,9	21,6	23,0
1-3 times/ month	5,4	9,7	9,3	8,9	9,6	9,4
Less than monthly	5,6	3,2	3,2	3,2	3,9	3,4
Never	1,7	0,8	1,3	1,1	0,8	1,1
Don't know	0,3	0,1	0,2	0,2	0,1	0,2
Total	100,0	100,0	100,0	100,0	100,0	100,0

3.1.7 Fruits

The Italians (57 percent) followed by the Spanish (53 percent) respondents to the greatest extent report to eat fruit on a daily basis. The Polish respondents also had high frequencies, and three out of four stated that they eat fruit 4 times a week or more often. A little more than one out of three in Germany (34 percent), France (38 percent) and the UK (39 percent) have fruit on a daily basis, while a little less Norwegians (30 percent) reported the same.

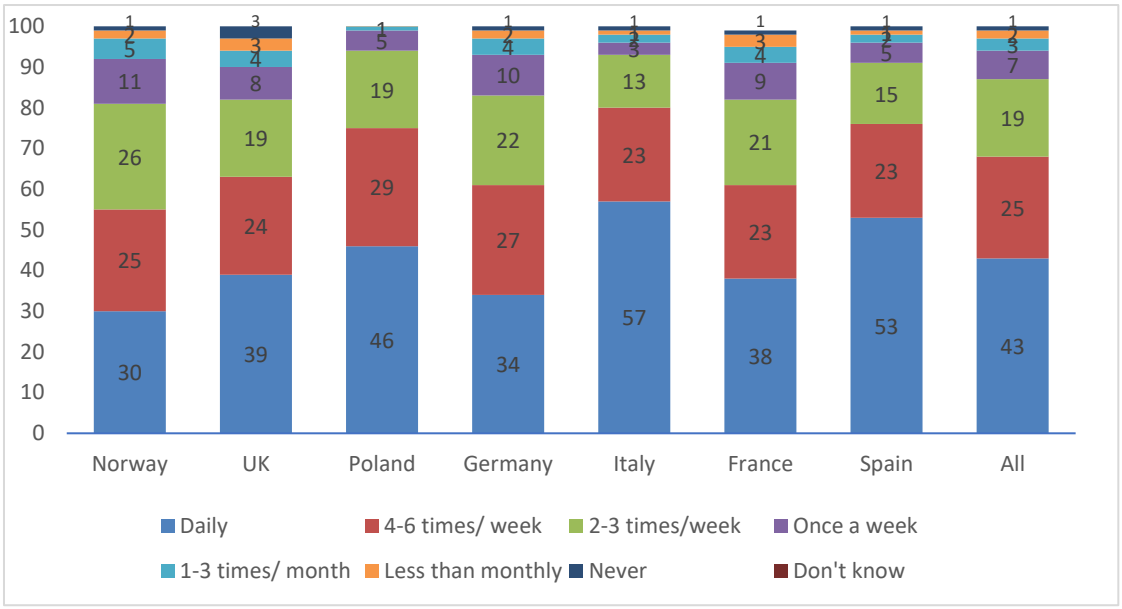

Figure 2 Frequencies of eating fruits. Country. Percent

Gender

More women (47 percent) than men (41 percent) stated to eat fruit on a daily basis. That is in line with findings in previous European studies (Stea et al., 2020).

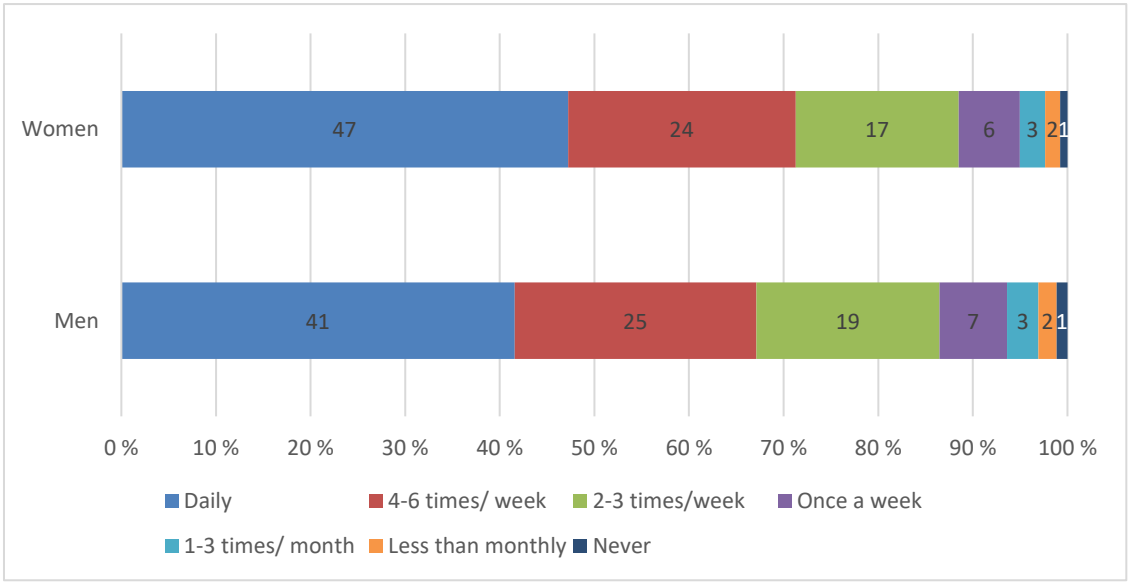

Figure 20 Frequencies of eating fuits. Gender. Percent

Age

As much as 93 percent of those aged 60+ have fruits twice a week or more of the compared to 80 percent in the lowest age group- Almost twice as many of the respondents aged 60+ (57 percent) compared to respondents under the age of 30 stated to eat fruit on a daily basis (30 percent).

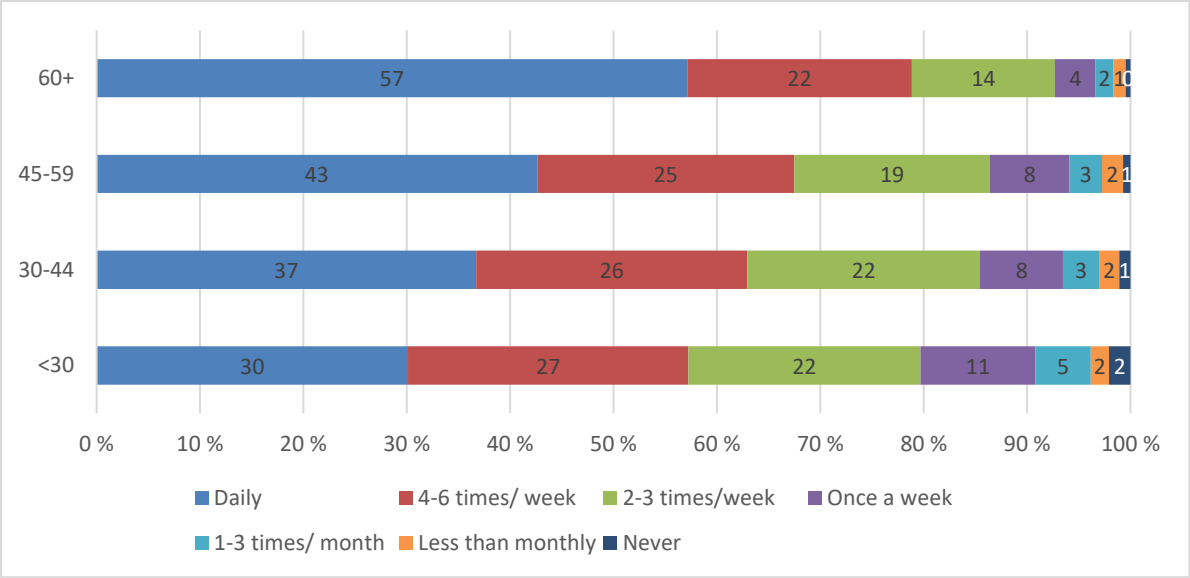

Figure 21 Frequencies of eating fruits. Age. Percent

Education

Those with highest level of educational attendance have the most frequent intake of fruits. More than 73 percent of respondents with a master's degree or higher stated that they had fruit 4 times a week or more often, while the same figure for those with primary school was 65 percent. Those with the lowest level of education to a greater extent reported to have fruit 1-3 times a month or more seldom than any of the other categories.

Table 4. Frequencies of eating fruit. Education. Percent.

	Primary school	Secondary school	Vocational college	University degree (Bachelor)	University degree (Master or higher)	All
Daily	43,9	41,5	41,6	42,8	46,5	42,6
4-6 times/ week	21,1	24,0	22,5	26,2	27,1	24,7
2-3 times/week	16,3	19,3	20,5	19,4	17,0	19,1
Once a week	7,6	8,1	8,4	6,4	5,5	7,3
1-3 times/ month	5,6	3,7	3,6	2,8	2,4	3,2
Less than monthly	3,1	2,1	1,7	1,5	1,0	1,8
Never	1,7	1,1	1,1	0,8	0,4	1,0
Don't know	0,6	0,2	0,5	0,2	0,1	0,3
Total	100,0	100,0	100,0	100,0	100,0	100,0

3.1.8 Apples

Among fruits we have chosen to focus on apples that is a crop that is grown and in common use in all European countries, in spite of varying climate conditions. The results show that the intake of apples differs from the general intake of fruits across the European countries. Apples was eaten by 20 percent of all the respondents on a daily basis and one in three stated to have apples more than 4 times a week. The Polish respondents have the most frequent intake of apples with 30 percent on a

daily basis and 50 percent 4 times a week or more often. Next follow the Italians (40 percent), but also German and the UK respondents scores relatively high (both 34 percent). In the lower end is the French (26 percent 4 times or more) and Norwegians (23 percent 4 times or more). Regarding gender, age and education there were less differences for apples compared with fruits in general (see Figures 23-25).

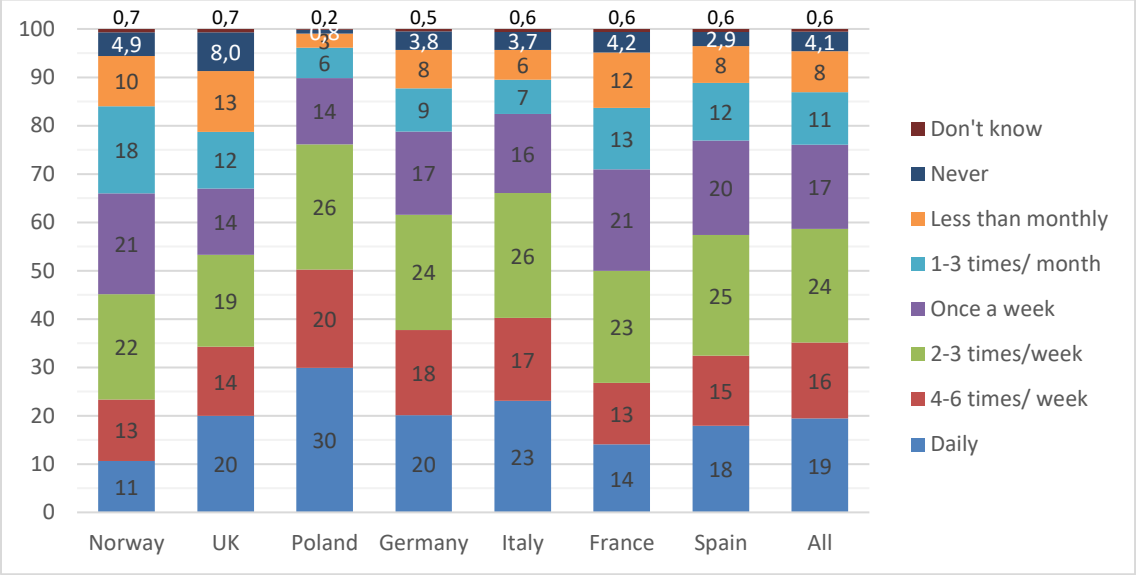

Figure 22 Frequencies of eating apples. Country. Percent

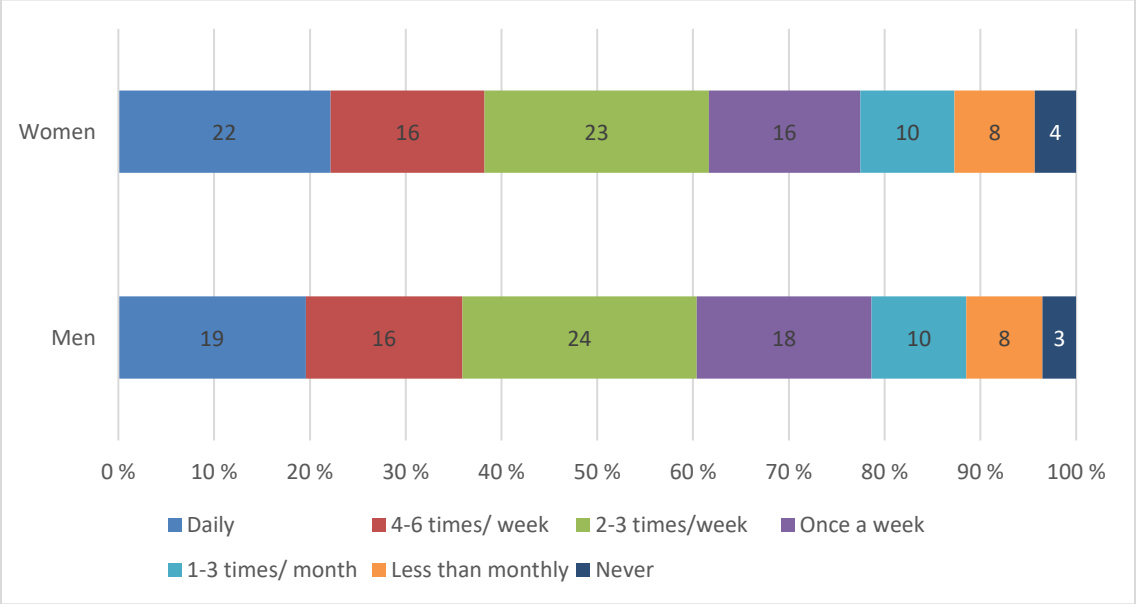

Figure 23 Frequencies of eating apples. Gender. Percent

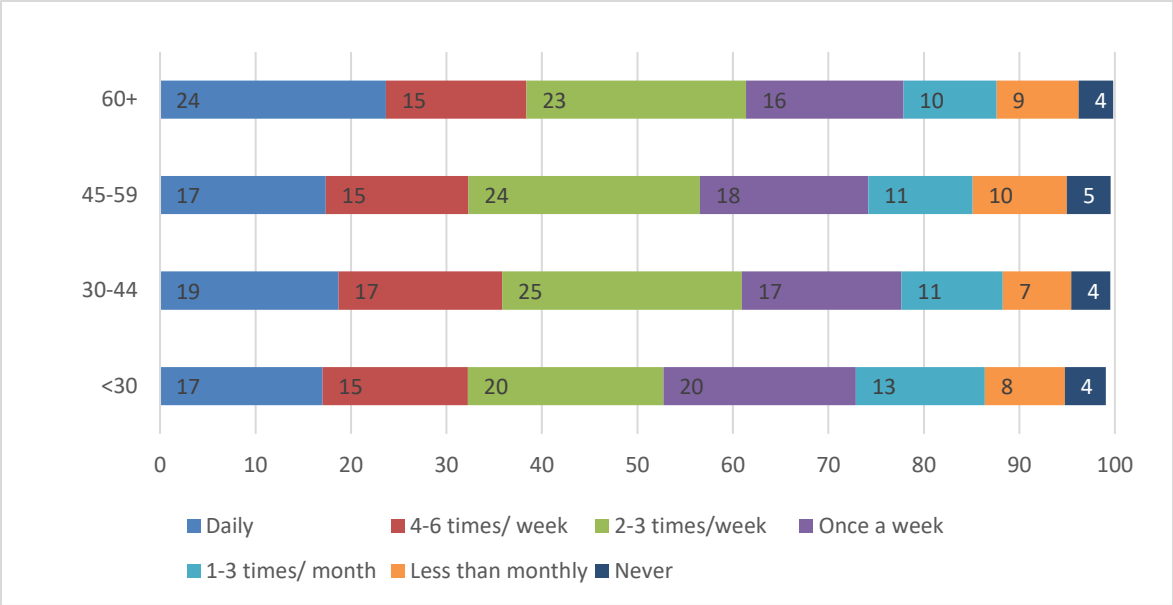

Figure 24 Frequencies of eating apples. Age. Percent

4. Access to food

4.1 Preferences for food of animal origin

As shown in figures 2-4 above, meat consumption differed across countries, gender as well as age groups. Meat has become a contested issue in areas such as food safety (food born decisis), animal welfare and climate. High intake of red and processed meat is especially subjected to health concerns from the authorities. It has also been an increasing public interest, especially in the media, about vegetarianism and veganism. Thus, we anticipate that there are great differences between people in their preferences for meat and other food of animal origin. We therefore asked the respondents to consider different statements about meat eating habits and single out the statement that fitted best to their own preferences. [5]

The main preference of the respondents was that they eat meat on a regular basis. As much as 60 percent stated this, while 18 percent reported that it depends on how the meat is produced. About 16 percent may be categorized as "flexitarians" reporting that they do not eat meat regularly but can eat fish or meat very occasionally. Just under three percent (2,6) may be categorized as vegetarians, meaning that they eat dairy products and eggs, but no fish or meat at all, and just under one percent (0,9) indicated that they not at all eat eggs or dairy products or any foods of animal origin – which is the statement closest to what we may term as veganism.

Again, there are significant differences between countries. Italians are those that to the greatest extent have a "conditional" relation to meat, meaning that more than 40 percent answered that they choose meat with a view to how it is produced. This is far above the rest of the countries. In France, the next country on the list, only 18 percent had this as their main preference.

[5] I eat meat on a regular basis
I eat meat depending on how it is produced (i.e. meat from animals that graze (grass fed), game, organic, free-range, animal-welfare friendly)
I do not eat meat regularly but can eat fish or meat very occasionally
I eat dairy products and eggs, but no fish or meat at all
I do not eat eggs or dairy products or any foods of animal origin

As much as three out of four Norwegian respondents (75 percent) stated to eat meat on a regular basis followed by Spain (70 percent), and UK (67 percent). Among the occasional meat eaters (flexitarians), the Germans scored highest (28 percent) followed by Polish (21 percent) and French respondents (18 percent). The Germans together with the UK respondents scored above average on vegetarianism (4 percent) and veganism (1,2 percent). As much as five percent of the Norwegian respondents refrained from making a preference for any of the suggested statements.

Table 5 Preferences concerning meat and other food of animal origin. Country. Percent.

	Norway	UK	Poland	Germany	Italy	France	Spain	All
Regularly	74,8	67,0	58,1	48,6	42,0	60,0	69,4	59,8
Dependent on production	9,5	13,4	14,2	16,1	43,2	17,6	12,9	18,2
Occasionally	8,4	10,4	21,3	28,0	9,9	17,9	13,0	15,7
Dairy and eggs	1,1	4,2	2,9	4,0	2,1	1,7	2,0	2,6
No food of animal origin	0,8	1,3	0,9	1,3	0,4	1,0	0,3	0,9
None of the above	5,0	2,1	2,3	1,2	1,9	1,1	2,0	2,2
Don't know	0,5	1,6	0,4	0,8	0,4	0,7	0,4	0,7
Total	100	100	100	100	100	100	100	100

Gender

There were only small differences regarding gender. Slightly more men had meat on a regular basis, while women scored slightly higher on “flexitarianism” and vegetarianism compared with men.

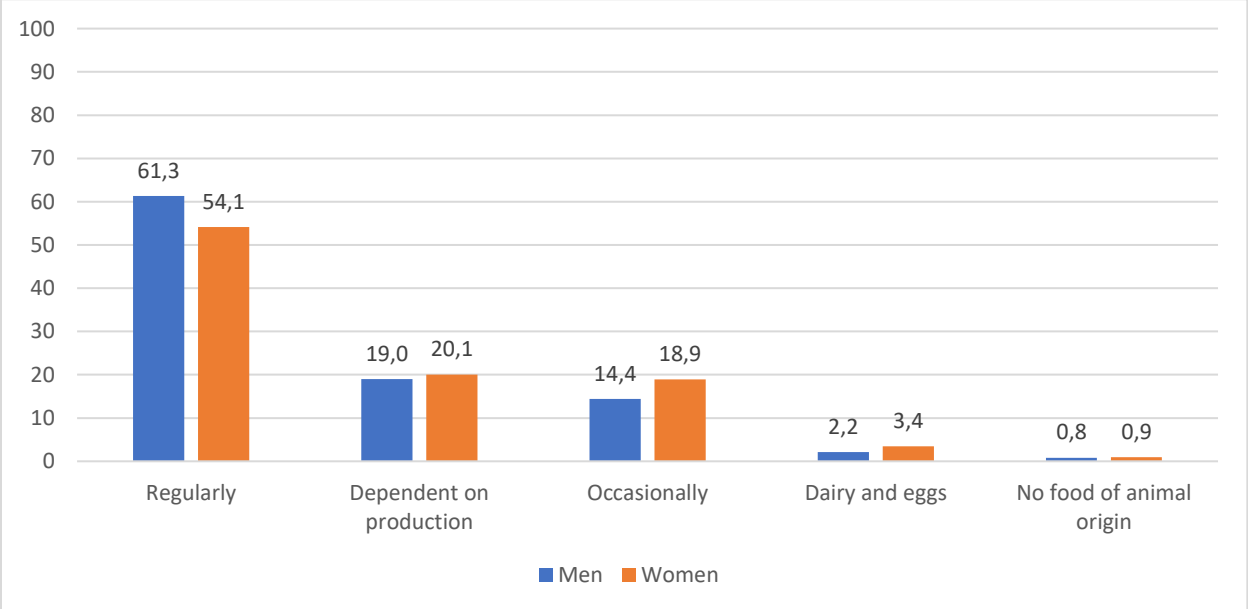

Figure 25 Preferences concerning meat and food of animal origin. Gender. Percent.

Age

There were not any major differences between age groups, except for a tendency that the youngest group under 30 contained relatively more vegetarians (4 percent) and vegans (2.3 percent) than the average. There were also slightly more “flexitarians” in the 60+ group (22 perent) than in the other age categories.

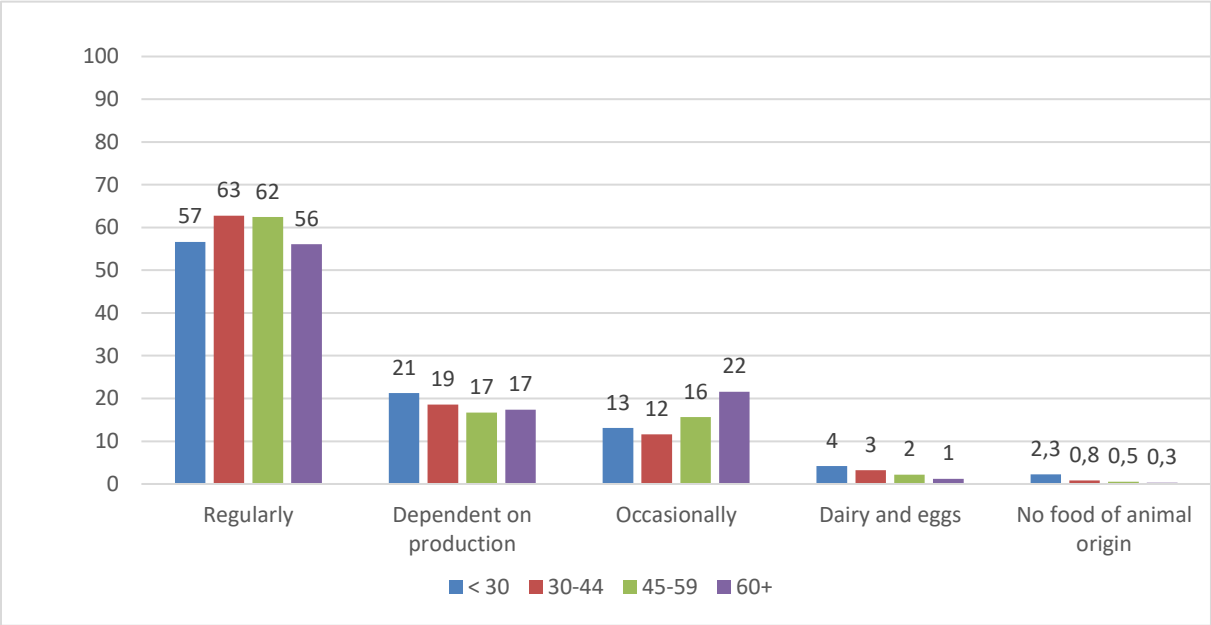

Figure 26 Preferences concerning meat and food of animal origin. Age. Percent.

4.2 Factors guiding food choice

In the Organic-PLUS survey respondents were asked to rank the importance of a number of factors related to food quality for chicken and apples. These products were chosen for the study because they are common in use, they represent one animal and one plant based food product and are connected to different issues concerning quality such as food safety, animal welfare, origin and trust. These are so called credence qualities and related to transparency in the food system.

Initially, we briefly discussed differences in governance and food culture across different European countries and between north/south and east/west in Europe. Based on the scientific literature, we anticipated that European consumers will differ regarding what types of quality aspects they consider. For example, that a credence quality such as food safety will be important in countries with low levels of trust or with experiences of major food scandals, and that origin and production methods will vary with differences in national food cultures.

The respondents were asked to rank different food quality aspects on a scale from 1 to 5 where 1 meant *not at all important* and 5 was *very important*. Table 6 and 7 show significant differences between the countries. However, the greatest differences were not as much in the order of the factors, rather in how respondents in the different countries used the scale. For chicken, Italian respondents gave an average score of 4,07 to all factors compared to only 3.24 among Norwegian respondents in the lower end. The same pattern was followed for apples. It was agreement in all countries, except Poland that taste is the most important factor regarding chicken. The polish consumers were most concerned about the best before date followed by the Italians. These countries also scored highest on other credence qualities such as organic production and local /

origin of products (produced in my local area/ knowledge of the producer). This may be related to a specific concern about food safety (best before date and organic production), and distrust in the national food system among consumers in these countries (Kjærnes, 2006). However, the table also shows a greater emphasis on broader quality concerns related to diversity. Especially among Spanish, French and Italian respondents, and to some extent also the Polish respondents, specific breeds, brands as well as animal welfare/free range production were emphasized.

Table 6 When buying chicken which of the following factors are important? Average score.

	Norway	UK	Poland	Germany	Italy	France	Spain	All
Taste	4,34	4,49	4,55	4,52	4,61	4,57	4,55	4,52
Best before date	3,98	4,10	4,67	4,10	4,29	4,06	4,13	4,20
Price	3,82	4,28	4,24	3,99	4,10	4,19	4,28	4,13
Produced in (my country)	3,84	3,87	4,08	4,01	4,43	4,04	4,07	4,05
Animal welfare / free range	3,49	3,83	3,95	4,00	4,24	4,10	3,96	3,95
Produced in my local area	2,90	3,28	3,79	3,81	4,16	3,78	3,73	3,65
Organic production	2,64	3,12	3,83	3,52	3,87	3,62	3,66	3,48
My knowledge of the producer	2,48	3,16	3,76	3,51	3,81	3,51	3,85	3,46
Specific brand	2,81	3,02	3,47	2,95	3,60	3,58	3,23	3,25
Specific breeds of chicken	2,10	2,75	3,34	3,09	3,55	3,57	3,60	3,17
All factors	3,24	3,59	3,97	3,75	4,07	3,90	3,91	3,79

For apples, the Italian respondents to the greatest extent put weight on the credence qualities such as seasonality, origin (both national and local) and also specific varieties of apples. Variety was in general higher valued for apples than for chicken. Polish respondents scored highest on the visual and tangible quality aspects such as taste, freshness and appearance, while price was more important in the UK than in the other countries. Specific brands or knowledge of the producer was the two aspects that were least emphasized.

Table 7 When buying apples, which of the following factors are important? Average score.

	Norway	UK	Poland	Germany	Italy	France	Spain	All
Taste	4,56	4,54	4,58	4,56	4,56	4,47	4,58	4,55
Freshness	4,43	4,51	4,57	4,49	4,56	4,37	4,54	4,50
Visual appearance	3,89	4,09	4,18	3,96	3,98	3,81	4,16	4,01
Price	3,44	4,21	4,08	3,96	3,94	4,06	4,16	3,99
In season	3,19	3,75	3,94	3,82	4,33	3,90	4,20	3,89
Produced in (my country)	3,28	3,61	4,04	3,92	4,27	4,10	3,92	3,89
Country of origin	3,07	3,49	3,97	3,81	4,22	4,04	3,82	3,79
Specific variety	3,11	3,75	3,87	3,70	4,01	3,95	3,96	3,78
Produced in my local area	2,76	3,19	3,77	3,80	3,96	3,71	3,67	3,57
Organic production	2,49	3,03	3,71	3,46	3,68	3,41	3,60	3,36
Specific brand	2,65	3,17	3,51	3,04	3,43	3,18	3,15	3,17
My knowledge of the producer	2,09	2,94	3,46	3,23	3,49	3,24	3,58	3,17

All factors	3,25	3,69	3,97	3,81	4,04	3,85	3,94	3,81

4.3 Food practices and sustainability

In the previous section we found that visual quality aspects in general were prioritized over credence quality aspects such as origin and organic production. In this section we will investigate to what extent people say that they act or have intention to act sustainable on a range of food related practices. The selected practices were: buy regional (local) food, buy seasonal fruits and vegetables, buy organic food, frequency of eating meat, avoid food with excessive packaging, avoid food products imported by airplane and use left-overs for later meals.

The respondents were asked to state whether they are doing or have plans of doing these practices with a specific view to decrease the environmental impact.[6] This question was originally used in a comparative study about meal patterns in the Nordic countries (Niva et al., 2019). The questions are related to the question of access to food in the sense that it has to do with both preferences and knowledge on how to perform the practice.

4.3.1 Buy regional (local) food

Buying regional (local) food follow the same geographical pattern as we found in the previous section about quality aspects. In Italy, France and Germany more than 50 percent of the respondents stated that they did this already. More than 40 percent of the respondents in Spain and Poland stated the same, while the figures for UK and Norway were about 30 percent. Norwegians to a much greater extent than respondents in the other countries said that they are not doing this (about 30 percent). Overall, it seems that this is an activity that most people already do or would like to do. Following Nvia et al. (2019) average for the Nordic countries was about 40 percent that do it already while just under 20 percent not doing this.

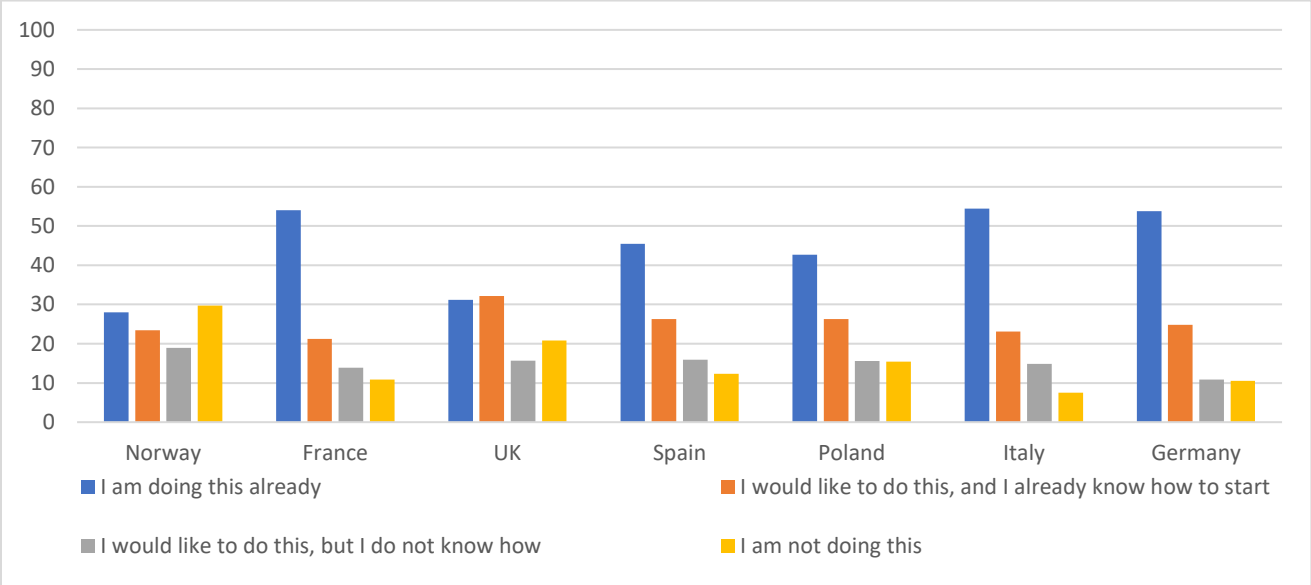

Figure 3 Buy regional (local) food. Country. Percent.

Gender and age

[6] Are you doing or do you have plans of doing any of the following things with a specific view to decrease the environmental impact?

The older age groups (45+) to a greater extent said they engaged in this activity than the younger, while the gender differences were small.

Table 8 Buy regional (local) food. Gender. All countries. Percent.

	Men	Women
I am doing this already	46,2	47,7
I would like to do this, and I already know how to start	25,8	25,5
I would like to do this, but I do not know how	14,4	14,5
I am not doing this	13,6	12,3
Total	100,0	100,0

Table 9 Buy regional (local) food. Age. All countries. Percent

	Under 30	30-44	45-59	60+	All
I am doing this already	28,6	40,0	49,8	55,3	45,5
I would like to do this, and I already know how to start	33,6	27,7	22,7	19,3	24,7
I would like to do this, but I do not know how	21,0	16,7	12,6	10,9	14,5
I am not doing this	16,8	15,6	15,0	14,5	15,3
Total	100,0	100,0	100,0	100,0	100,0

4.3.2 Seasonal fruits and vegetables

Again, Italy and France scored highest for this activity followed by Spain, Poland and Gemany. In UK less than 30 percent stated that they do this, while only about 15 percent of the Norwegian respondents reported to eat only seasonal fruits and vegetables (Figure 29). More than half of the Norwegians stated that they were not doing this. Niva and colleagues (2019) found that above 20 percent in the Nordic countries eat only seasonal and 40 percent are not doing this. One explanation for the low scores may be that the growing season in the Nordic countries is short and that in greater periods of the year, especially winter and spring, local fruits and vegetables are little available. This might contribute to explain why a fair share in the UK (27 percent) and Poland 23 percent) also stated to not eating only seasonal fruits and vegetables.

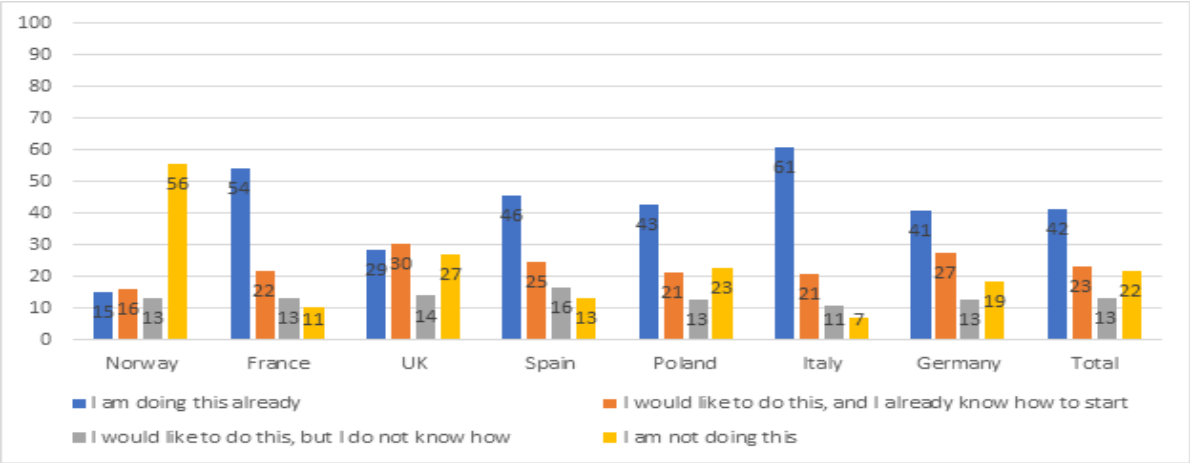

Figure 28 Eat only seasonal fruits and vegetables. Country. Percent.

Gender and Age

Women to some extent more than men - and elderly people to a greater extent than the younger - state that they eat seasonal food. Interestingly, this age difference does not show when it comes to not doing this. Here all age categories score from 21, 5 percent (30-44) to 23,6 percent (45-59). Rather, the younger age groups state that they would like to do this, but to a greater extent say they do not how.

Table 10 Eat only seasonal fruits and vegetables. Gender. All countries. Percent

	Men	Women
I am doing this already	43,2	47,7
I would like to do this, and I already know how to start	24,5	24,5
I would like to do this, but I do not know how	14,3	12,5
I am not doing this	18,1	15,3
Total	100,0	100,0

Table11 Eat only seasonal fruits and vegetables. Age. All countries. Percent

	Under 30	30-44	45-59	60+	All
I am doing this already	26,2	36,0	46,2	52,2	42,2
I would like to do this, and I already know how to start	29,1	26,5	20,9	17,8	22,7
I would like to do this, but I do not know how	21,7	15,9	9,3	7,9	12,6
I am not doing this	23,0	21,5	23,6	22,0	22,5
Total	100,0	100,0	100,0	100,0	100,0

4.3.3 Organic food

Less respondents stated to buy organic food compared to the two previous activities. However, 40 percent of the French respondents and more than 30 percent in Germany and Italy did this already. Respondents in Norway and the UK were least engaged in buying organic food, with a percentage about 20. A significant share in Italy, Spain and Poland also stated that they would like to this, while respondents in the UK (more than 40 percent) and especially Norway (over 50 percent), said that they did not do this. The figures for Norway is in line with the study of Niva et al. (2019), with 42 percent as an average for all Nordic countries stating not doing this. It is also in line with a later survey question about organic food (se below) where Italian and French respondents report the highest frequencies in the use of organic food (Vittersø et al., 2019).

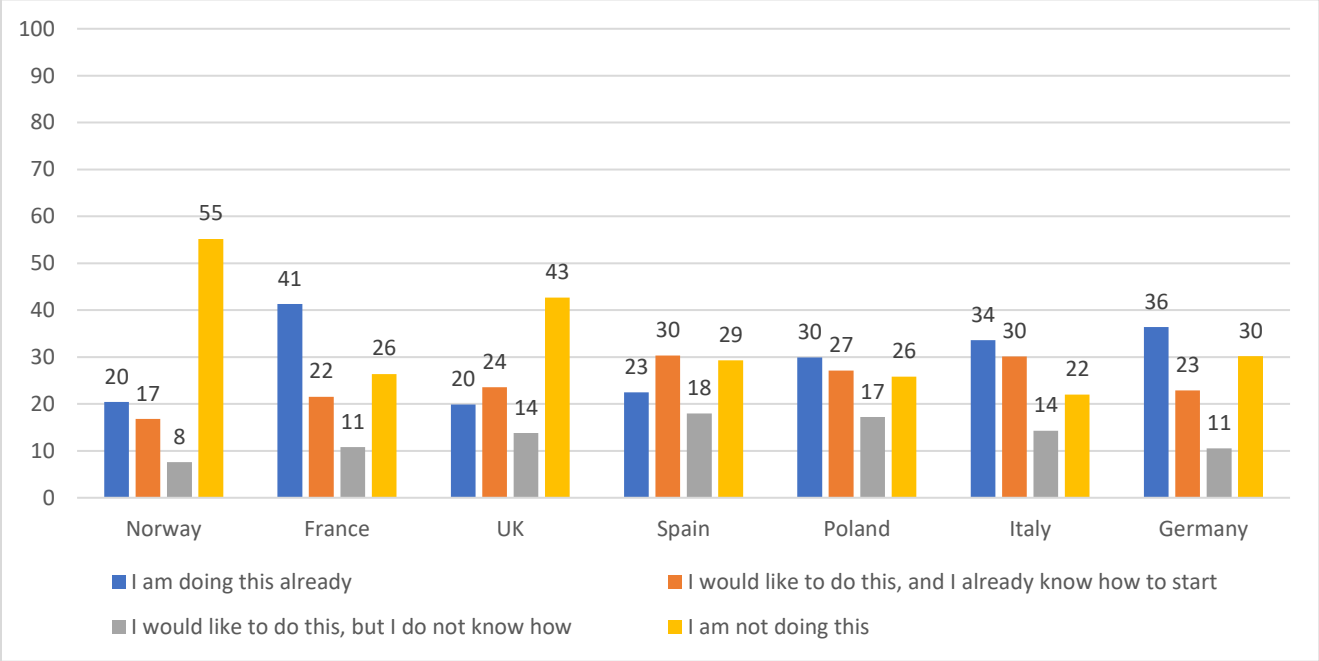

Figure 29 Buy organic food. Country. Percent.

Gender and age

Again, women to a slightly higher extent than men buy organic food already, while the younger age groups seem more engaged with organic than the age group 60+. In this group more than 40 percent stated that they are not doing this compared to 34 percent overall.

Table 11 Buy organic food. Gender. All countries. Percent

	Men	Women
I am doing this already	28,1	33,0
I would like to do this, and I already know how to start	27,2	24,6
I would like to do this, but I do not know how	14,2	13,8
I am not doing this	30,4	28,6
Total	100,0	100,0

Table 12 Buy organic food. Age. All countries. Percent

	Under 30	30-44	45-59	60+	All
I am doing this already	25,4	30,0	31,3	29,8	29,5
I would like to do this, and I already know how to start	27,7	26,7	22,0	21,2	23,9
I would like to do this, but I do not know how	20,5	14,9	9,8	8,4	12,4
I am not doing this	26,4	28,3	36,9	40,5	34,1
Total	100,0	100,0	100,0	100,0	100,0

4.3.4 Meat

The question on meat reduction was framed as a statement about frequency (eat at most twice a week) and portion (a little at a time). In general, it was a little more reluctancy towards reducing meat consumption compared to the other sustainability practices. However, more than 50 percent of the Italians responded positively to this. About 40 percent of the German and Spanish respondents also stated that they did this already, followed by the French, UK and Polish respondents. In the opposite end, half of the Norwegians said they were *not doing* this. This correspond to the previous Nordic survey where 23 percent were doing this already and 58 percent answered not doing this (Niva et al. 2019). The Nordic survey were conducted as early as 2012 and the figures may have changed since then. However, the figures for Norway is surprisingly identical for 2012 and 2019.

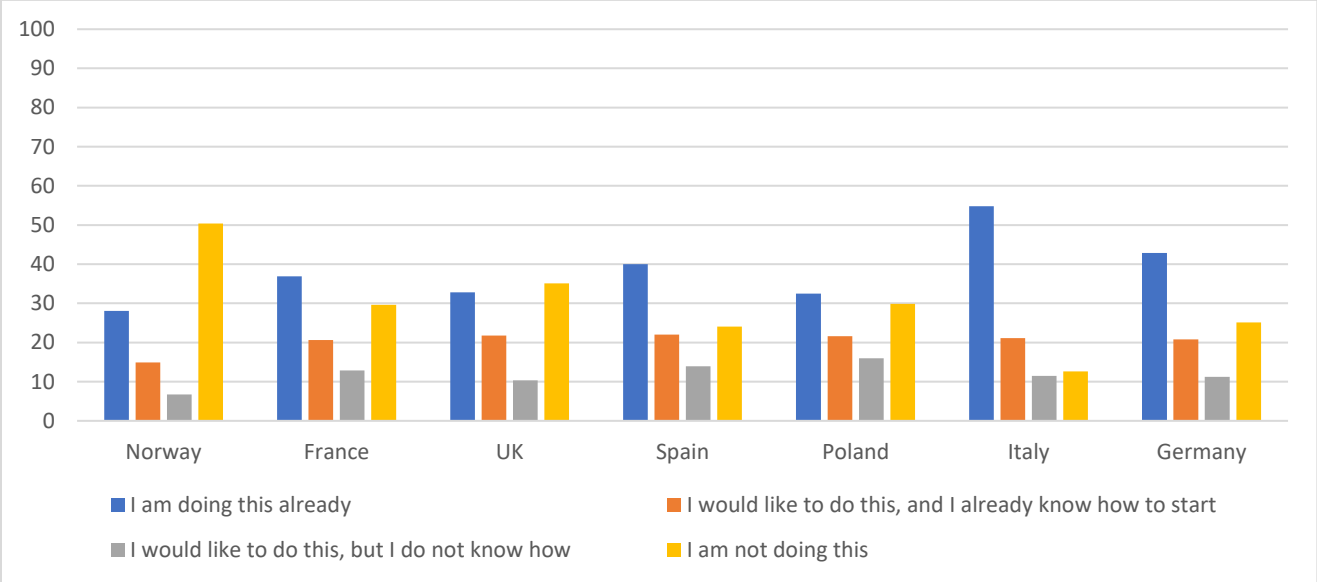

Figure 30 Eat meat at most twice a week or little at a time. Country. Percent.

Gender and age

We found clear gender differences with as much as 44 percent of the women doing this already compared to 35 percent among men. Also, in the older age groups there were more people following this than among the younger. However, when it comes to not doing this, there was smaller differences, only with those between 45-59 slightly more negative to reduce meat consumption (33 percent compared to 30 percent overall). Although the youngest scored low on less frequent meat consumption they were positive to try it out.

Table 13 Eat meat at most twice a week or little at a time: Gender. All countries. Percent,

	Men	Women
I am doing this already	35,4	44,2
I would like to do this, and I already know how to start	21,9	20,8
I would like to do this, but I do not know how	13,1	12,1
I am not doing this	29,6	22,9
Total	100,0	100,0

Table 14 Eat meat at most twice a week or little at a time: Age. All countries. Percent

	Under 30	30-44	45-59	60+	All
I am doing this already	27,3	33,7	41,1	48,8	39,4
I would like to do this, and I already know how to start	25,0	23,8	17,9	14,9	19,6
I would like to do this, but I do not know how	19,9	14,3	8,3	6,4	11,2
I am not doing this	27,8	28,2	32,6	29,9	29,8
Total	100,0	100,0	100,0	100,0	100,0

4.3.5 Avoid products with excessive packaging

More than half of the German respondents stated to avoid products with excessive packaging followed by Poland, Spain and France (all above 40 percent). Respondents in most countries want to do this (43 percent) while little more than 20 percent of the Norwegian respondents stated that they are not doing this (22 percent).

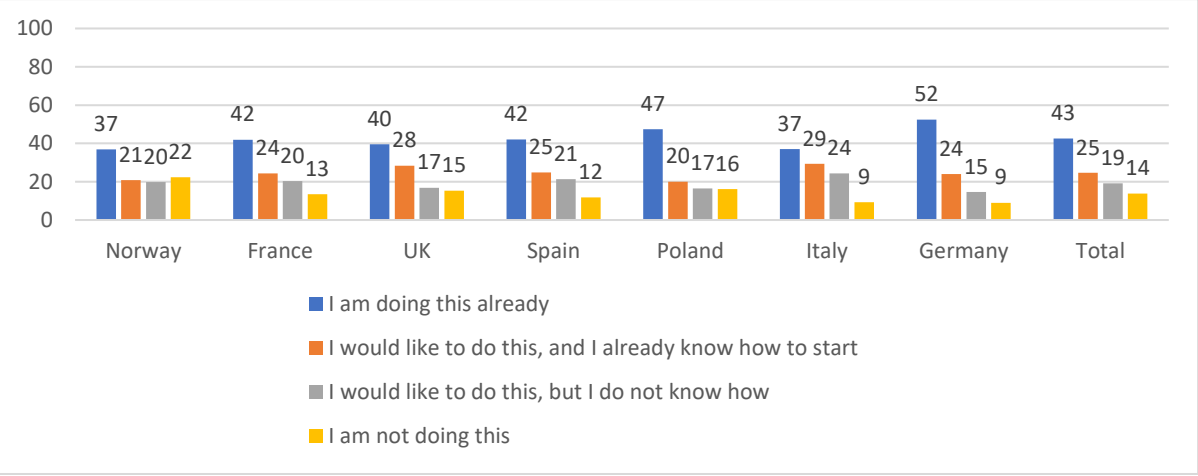

Figure 31 Avoid products with excessive packaging. Country. Percent

Gender and age

More women than men stated to do this already, while slightly more men than women responded that they are not doing this.

Table 15 Avoid products with excessive packaging: Gender. All countries. Percent.

	Men	Women
I am doing this already	40,3	46,3
I would like to do this, and I already know how to start	25,6	24,6
I would like to do this, but I do not know how	19,7	18,2
I am not doing this	14,3	10,8
Total	100,0	100,0

It was a significant age difference for this activity. The older age groups are more inclined to avoiding packaging than the younger, although a significant share of the young state that they would like to do this and already know how (28 percent) or do not know how (25 percent).

Table 16 Avoid products with excessive packaging. Age. All countries. Percent.

	Under 30	30-44	45-59	60+	All
I am doing this already	31,9	38,1	46,9	51,1	43,4
I would like to do this, and I already know how to start	27,7	28,1	23,0	19,8	24,1
I would like to do this, but I do not know how	25,2	21,0	16,6	15,1	18,7
I am not doing this	15,2	12,8	13,5	14,1	13,8
Total	100,0	100,0	100,0	100,0	100,0

4.3.6 Avoid food products imported by airplane

It was significant differences between the countries regarding avoiding food products imported by airplane. More than one in three in both France and Italy stated to do so already compared to only 6 and 15 percent respectively in Norway and UK. As much as 57 percent in Norway reported to not doing this, again followed by the British (40 percent) and Spanish (36 percent) respondents.

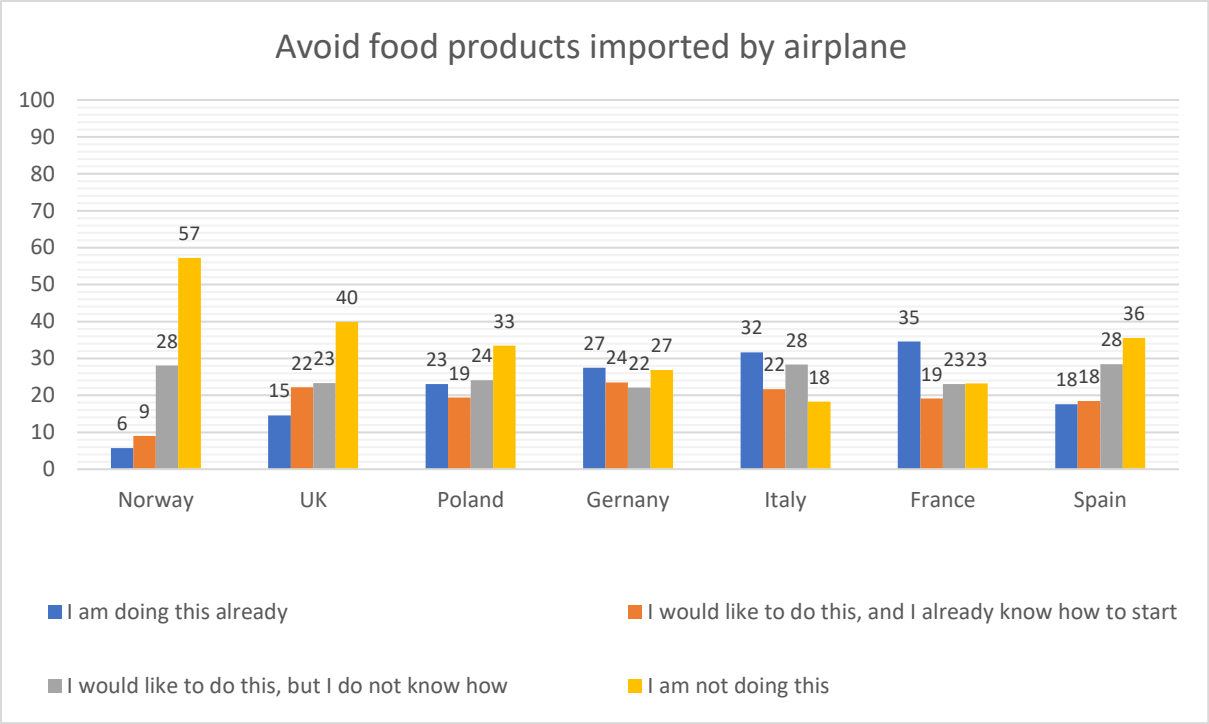

Figure 324 Avoid food products imported by airplane. Country. Percent.

4.3.7 Use left-overs for later meals

Over all 70 percent of the respondents stated to use left overs for later meals. This was markedly most widespread in Norway with more than 80 percent reporting to this already. Also more than 70 percent of the Spanish, German and Italian respondent this were doing this. In Poland only a little more than half of the respondents reported to use left-overs compared to about 60 percent in Spain and UK.

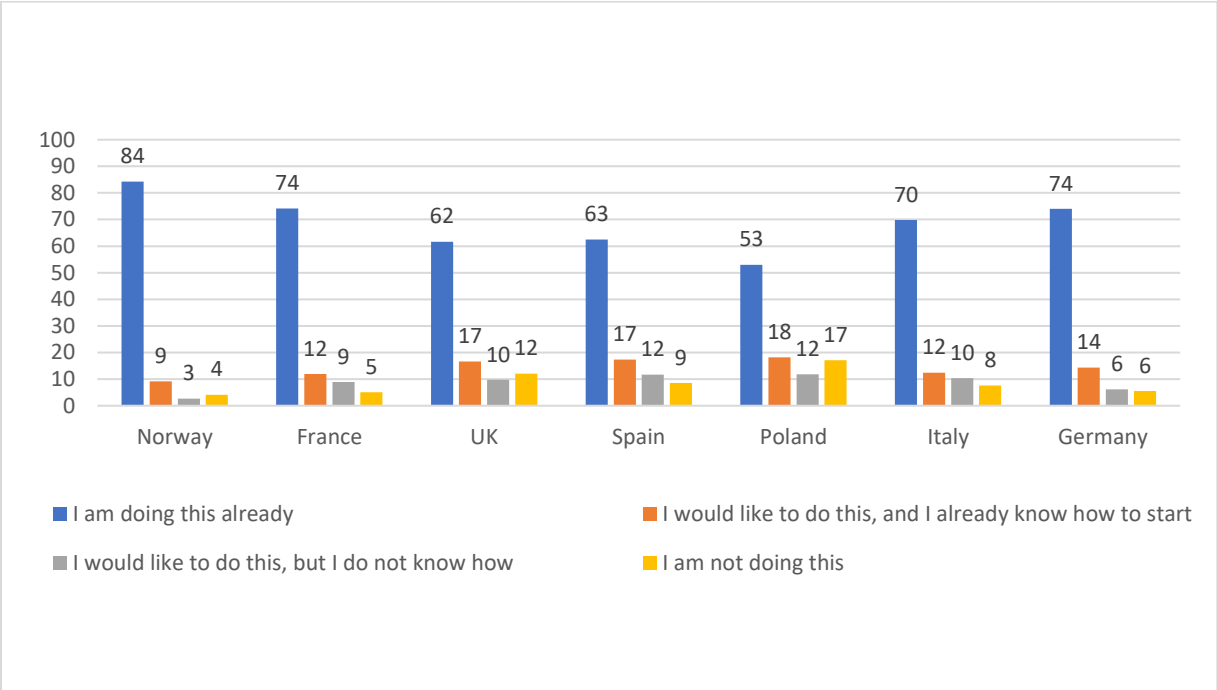

Figure 5 Use left-overs for later meals. Country. Percent.

Gender and age

Women to a greater extent than men used the left overs and this is also more common in the older age groups than among the younger generation (80 percent in 60+ compared to 53 percent among those under 30).

Table 17 Use left-overs for later meals. Gender. All countries. Percent.

	Men	Women
I am doing this already	60,8	70,7
I would like to do this, and I already know how to start	16,8	13,5
I would like to do this, but I do not know how	11,0	8,5
I am not doing this	11,5	7,3
Total	100,0	100,0

Table 18 Use left-overs for later meals. Age. All countries. Percent.

	Under 30	30-44	45-59	60+	All
I am doing this already	52,7	62,1	76,2	80,6	70,1
I would like to do this, and I already know how to start	20,3	18,2	11,5	7,6	13,4
I would like to do this, but I do not know how	14,6	11,6	5,4	4,2	8,1
I am not doing this	12,4	8,1	6,9	7,7	8,4
Total	100,0	100,0	100,0	100,0	100,0

4.4. Experiences with growing food and own provisioning of food

Access to food is affected by where people live, as well as their background and knowledge of food production. Therefore, we included 6 questions in the survey where the respondents were asked about their connection with farm life/farming and to the extent they grow, rear or harvest own food.

In the overall sample 12 percent lived or have lived on a farm and as much as one in three have visited a farm. Composting is an activity that almost one in four practices while a little less have experiences with growing own food (15 percent) or harvest from nature (17 percent). Participating in some form of community food initiative (CSA or similar) was only stated by four percent of the respondents.

The Norwegian respondents did have the closest background with farms whereof 24 percent stated that they either live or have lived on a farm. As much has 41 percent of the Norwegians had visited a farm. In Poland as much as 19 percent stated to live/have lived on a farm. In addition, 37 percent had visited a farm which equal the number in UK where also 10 percent of the respondents lived/or have lived on a farm. Perhaps a little surprisingly, the figures for the four other countries were somewhat lower, with Spain at the lowest end with only six percent reported to live/have lived on a farm and 20

percent to have been visiting one. The differences may reflect that the survey contained a relatively larger share of urban dwellers in Spain compared to the other countries.

The Polish (23 percent) and French (21 percent) respondents reported most frequent to grow/rear for own consumption, while almost one in three of the Norwegians stated to harvest from nature. This is in line with other recent studies (Vittersø and Torjusen 2021) and one explanation for this relatively high figure is that harvesting from nature such as berry picking, hunting and fishing is part of the Norwegian tradition with outdoor activities. More than one in five of the Polish respondents claim to harvest from nature followed by Italian, French and German respondents. The French respondents were most active in composting (31 percent) followed by Polish, German and UK respondents.

When it comes to participation in community food initiatives the French respondents were most active with 10 percent followed by six percent in Italy and four percent in Spain. For the other countries participation in such types of alternative food networks seem only marginal.

Spain scores in the lower end for all activities except participation in community food initiatives, which might be explained by the bias in the sample regarding the urbanity/rurality dimension.

Table 19 Experiences with growing/provisioning food. Country. Percent.

	Norway	UK	Poland	Germany	Italy	France	Spain	Total
I live / have lived on a farm	24	10	19	8	9	9	6	12
I have visited a farm	41	37	37	25	28	30	20	31
Grow/rear for own consumption*	11	13	23	12	13	21	12	15
I harvest from nature (pick, fish, hunt)	31	11	21	16	18	17	9	17
I compost food- and/or garden waste	18	25	28	27	17	31	7	22
Community food initiative(s)**	1	2	2	2	6	10	4	4

*I grow food/holding animals for own consumption

**I get food through participation / membership in community food initiative(s) such as CSA/AMAP/GAS /producer-consumer cooperatives or similar

Place of residence

Not surprisingly, those living in the countryside more frequent stated to live/have lived on a farm. Rural residents also to a greater extent grow own, harvest from nature and make compost. The community food initiatives on the other hand, were more used by the urban respondents, indicating different ways of food provisioning between the urban and rural population. This will be further investigated in later chapters. The figure also shows that the urban residents have the least access to, or make less use of, these activities. Around 40 percent in cities state that they do not use any of the options.

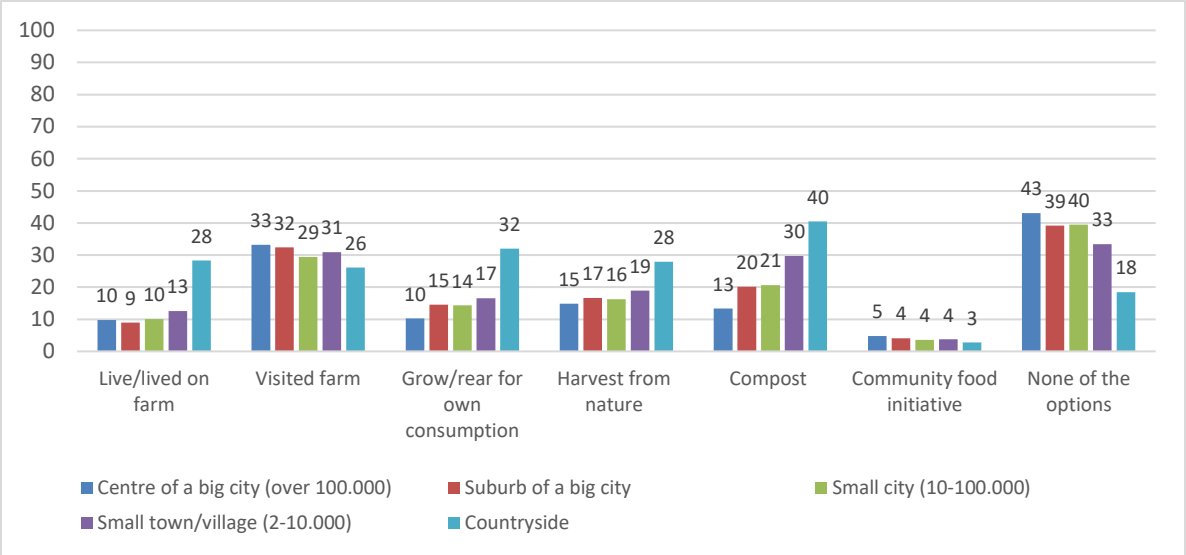

Figure 34 Experiences with growing/provisioning food. Place of residence. All respondents. Percent.

4.5 Organic food

The Organic-PLUS report divided organic food consumption in three categories: frequent, moderate and low/no organic consumers, and it showed a large variety for all three categories across European countries. Italy and France reported the highest numbers of frequent organic consumers.[7] Here more than 20 percent reported to eat organic 4 times or more/week, while only 8 percent in Norway did the same. Italy together with Poland were in the highest rank of the moderate consumers (43 percent 1-3 times a week). Again, Norway together with UK scored lowest and these countries were also those who had the highest share of respondents reporting seldom or never to eat organic food (51 percent 1-3 times a month / more seldom or never). The report also showed that women tended to use organic food more frequent than men in Poland, Italy and Germany, while in the UK men to a greater extent than women reported frequent organic food consumption. In Norway, there were no gender differences regarding frequent organic consumption, but a larger share of Norwegian women than men was classified as moderate organic consumers. In general, organic consumption decreased with age and increased with level of education. It was a less distinct pattern regarding place of residence (Vittersø et al., 2019).

4.5.1 Affordability

Affordability is a vital aspect when it comes to access to food. The figures below show the relation between net household income and organic food consumption in each country (Figures 36 – 40).[8]

Especially in the UK and Germany higher income groups tended to use organic food more frequent than other groups. The tendencies are not as clear in Italy, Poland and Norway. In all countries the lowest income groups to the greatest extent stated to never use organic food.

[7] Thinking about eating habits in your household over the last month, how often did you eat organic food?
[8] See appendix for categorisation of net household income in each country.

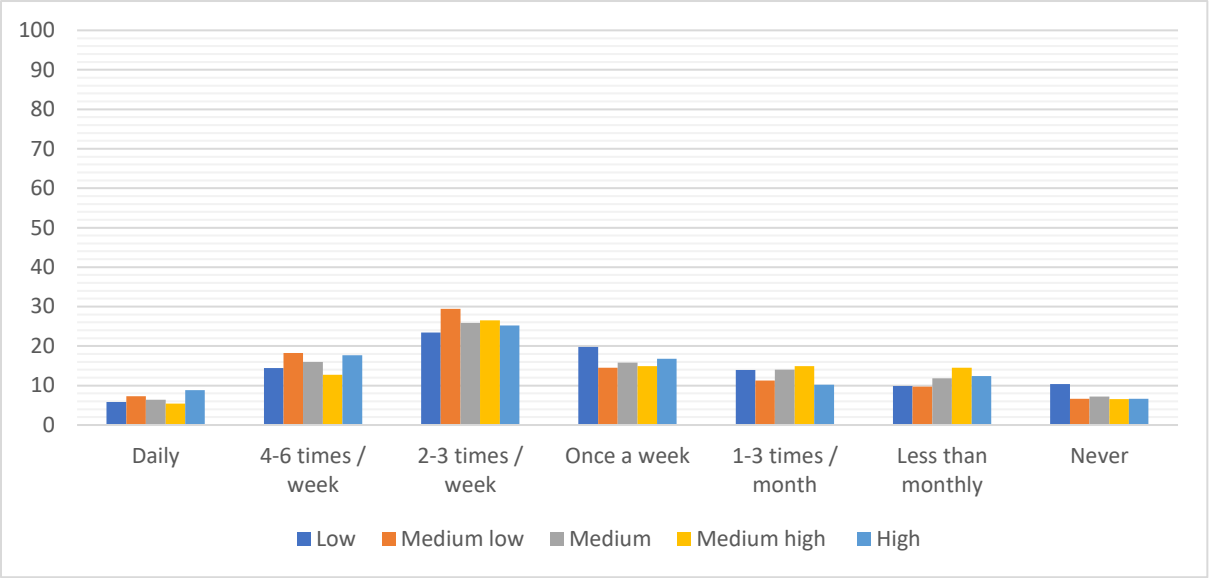

Figure 35 Frequencies of eating organic food. Net monthly income. Italy. Percent.

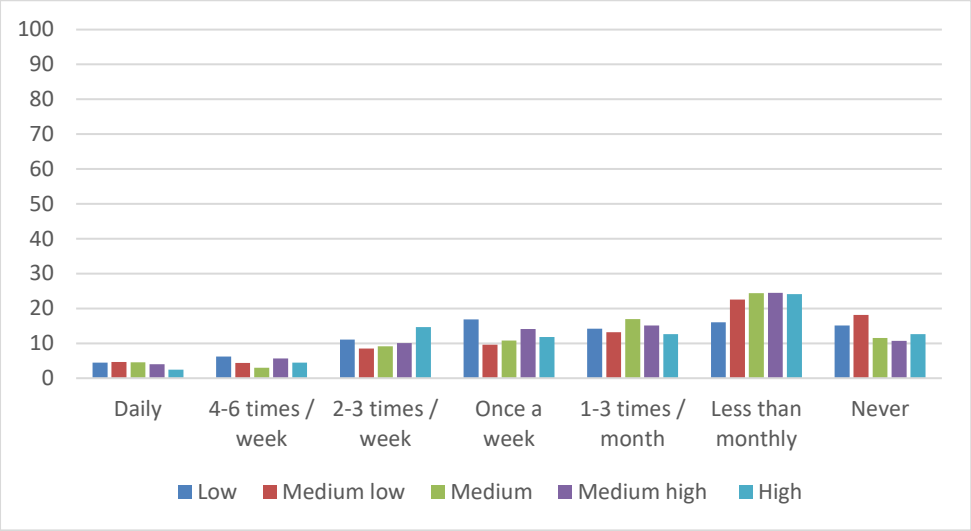

Figure 36 Frequencies of eating organic food. Net monthly income. Norway. Percent.

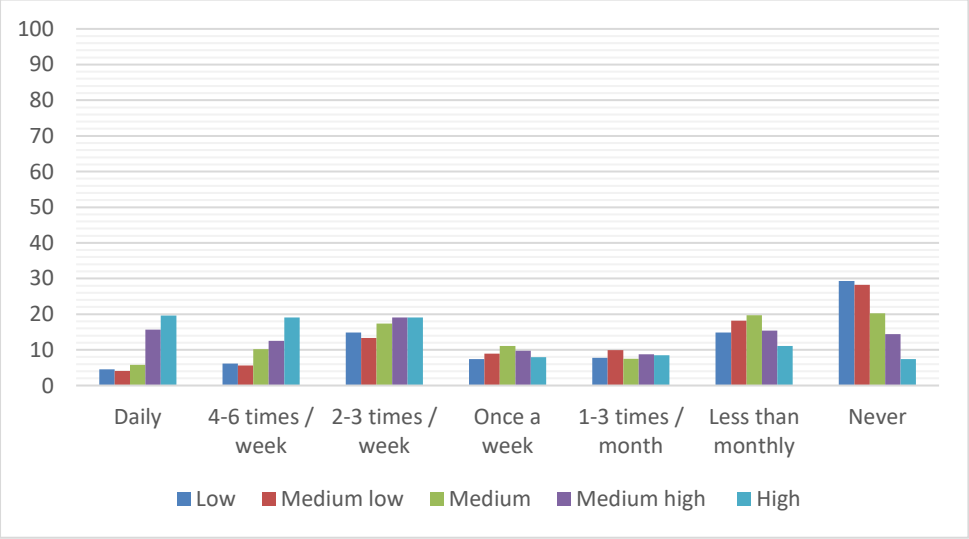

Figure 37 Frequencies of eating organic food. Net monthly income. UK. Percent.

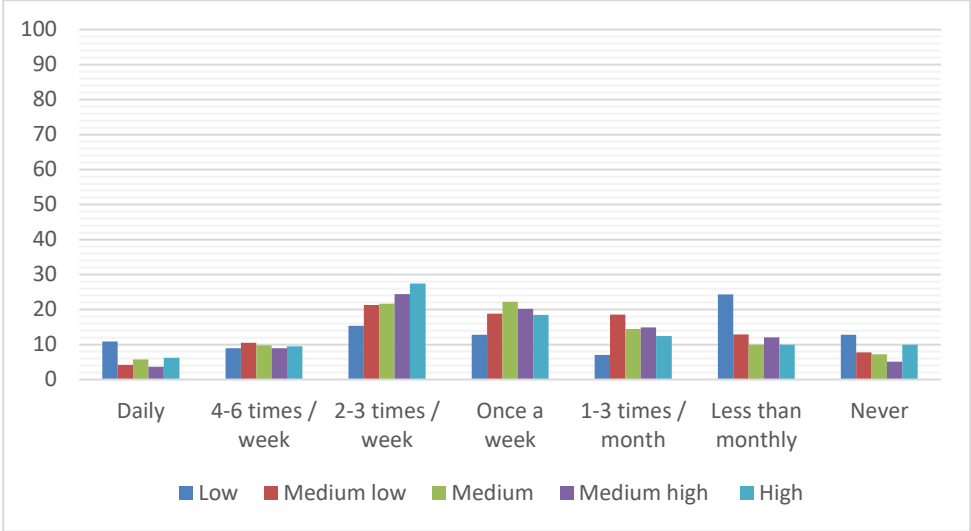

Figure 38 Frequencies of eating organic food. Net monthly income. Poland. Percent.

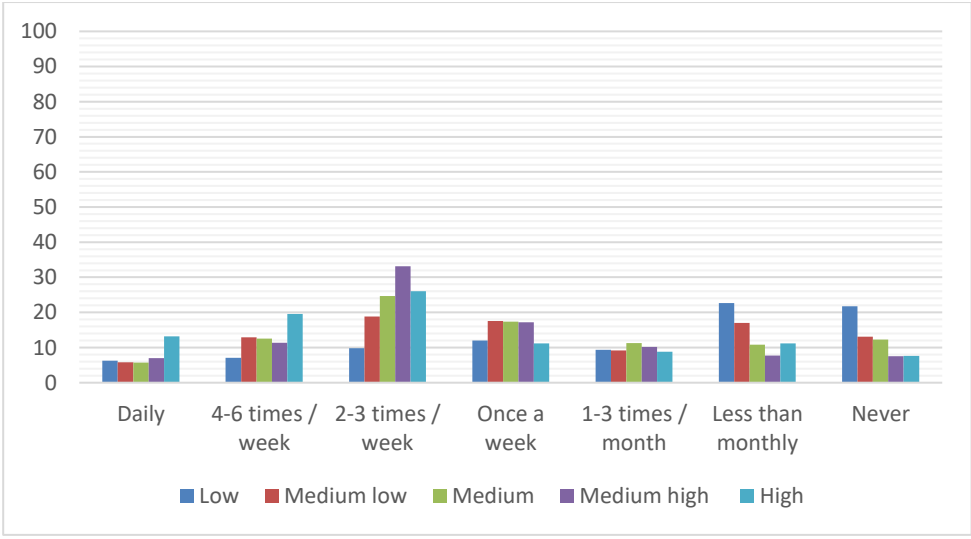

Figure 39 Frequencies of eating organic food. Net monthly income. Germany. Percent.

5. Food availability

In this section we will look into how consumers in the different countries acquire food in general and organic food in special through different modes of provisioning. The respondents were asked to suggest how much of the households' total food consumption that was sourced from different supply channels.[9] They were given a scale indicating the amount: nothing, a small part, some, a major part and all.

It was small gender differences regarding supply channel, while it was significant age-differences in food purchases related to specific sales channels both for ordinary and organic food. We are cautious to interpret these results, because it may be difficult for respondents to make these kinds of estimates and that the question may have been interpreted differently by different type of respondents. The results may indicate that the oldest age groups have been more moderate in their answers, for instance that they to a lesser extent claim to buy organic food from specific supply channels. However, a relative large share of elder respondents answered "not relevant" to some of the supply channels, which may indicate that some types of supply channels are less available for elder people.

The Organic-PLUS report (Vittersø et al., 2019) showed that purchases of organic food to some extent follows the general pattern of food purchases, however with some important exceptions. Below we will have a closer look at these differences for each of the supply channels.

5.1 Large superstore/hypermarket

Figure 41 shows that hypermarkets / larger supermarkets make up the largest part of food purchases (57 percent bought "a major part" or "all" food) all countries seen together. Purchase of organic food followed the same trend, however, on a lower level (36 percent). France, followed by Italy and the UK were the countries with highest share stating to buy most or all food (including organic) in hypermarkets/larger supermarkets (Vittersø et al., 2019).

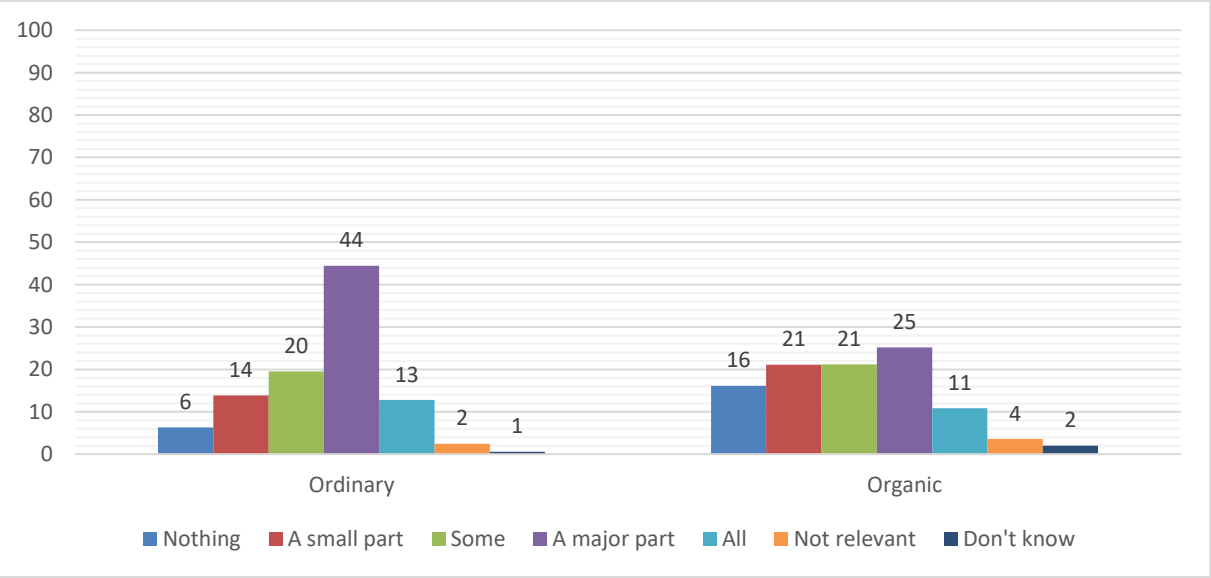

Figure 40 Large superstore / hypermarket. All countries. Percent. N=15304 (Ordinary); N=12369 (Organic).

[9] How much of your household's total food consumption did you buy / source from the following shops / markets last month?

5.2 Small supermarket / convenience /discount store

Smaller supermarkets/discount stores were also important, but to a lesser extent than hypermarkets / larger supermarkets used for buying food taken all countries together (Figure 42). Norway was the country with the highest share of respondents shopping both ordinary and organic food from smaller supermarkets/discount stores. This is mainly due to the relatively high market share of smaller supermarkets compared to hypermarkets in Norway. German respondents also reported to buy most of their food (including organic) from smaller supermarkets/discount stores, while in Poland supermarkets and hypermarkets accounted for about the same share in each of these categories (Vittersø et al., 2019).

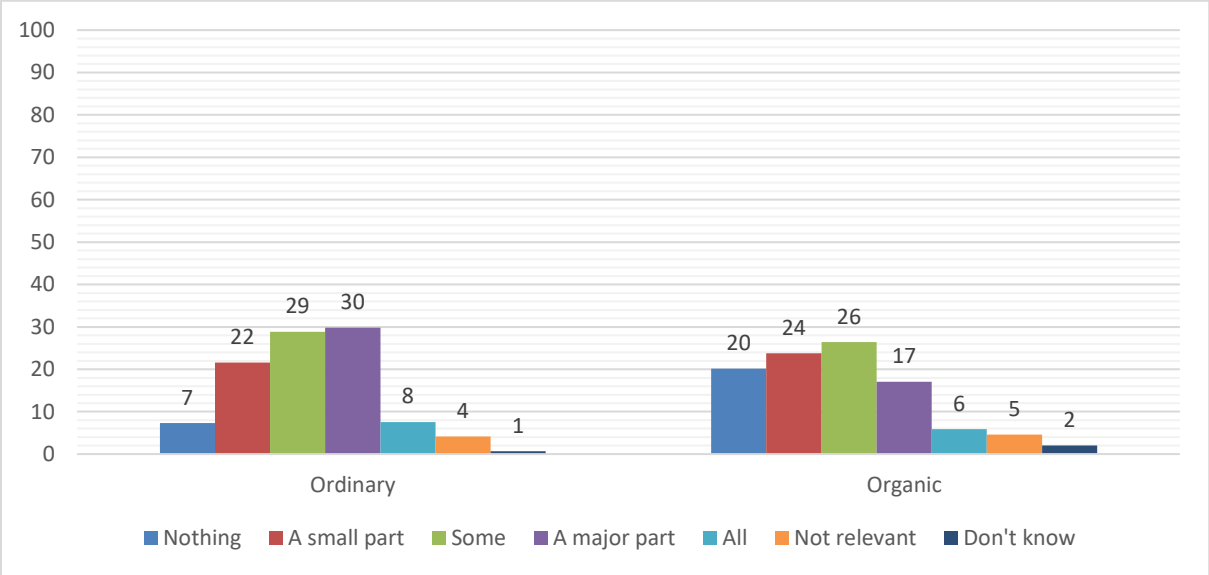

Figure 41 Small supermarket/convenience /discount store. All countries. Percent. N=15305 (Ordinary); N=12369 (Organic).

5.3 Specialty shop (butcher, greengrocer, etc.)

In general, specialty shops provided a major part or all food for 14 percent of the respondents, however, for organic food this amounted for 19 percent (Figure 43). Specialty shops were most important in Spain and Italy followed by Poland with as much as about 20 percent stated that they buy a significant or all food in these types of stores. Then followed Germany (13 percent), the UK and France[10] (11 percent). In Norway only 3.5 percent said that they buy a major part/all food from specialty stores. Organic food is to a greater extent bought from this market channel in all the countries. In Poland, Italy and Spain nearly one out of four respondent who eat organic food stated to buy a major part/all organic food from specialty stores. In Germany and UK 18 percent used specialty stores for providing most of/or all organic food compared to 15 percent in France and 6 percent in Norway (Vittersø et al., 2019).

[10] A high percentage (17 percent) in France stated that this was not relevant to them.

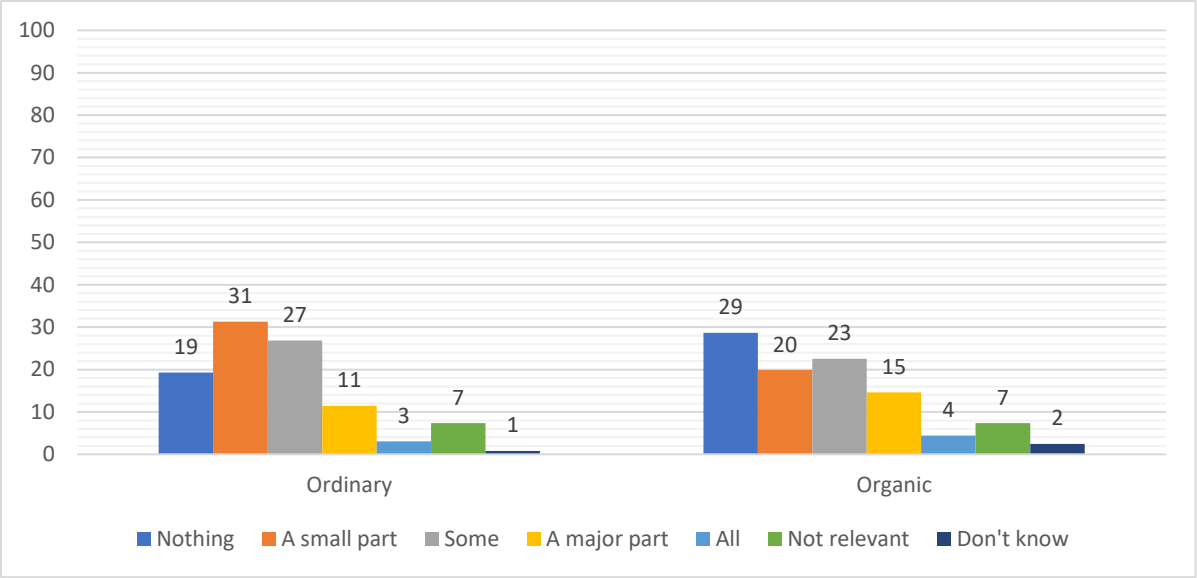

Figure 42 Specialty shop (butcher, greengrocer, etc.). All countries. Percent. N=15304 (Ordinary); N=12368 (Organic)

5.4 Online shopping (from a supermarket)

More than half of the respondents reported to not buying food online (Figure 44). UK was the country with the highest share of respondents stating to buy a major part or all food online (21 percent) followed by France and Spain (10 percent) (Vittersø et al., 2019). In Norway only 3 percent stated to buy a major part of food online. A significant share of the respondents in all countries (16 percent on average) reported that online shopping was not relevant to them with as much as 30 percent in France and 25 percent in Germany. Organic food followed the same pattern as food in general with about 20 percent a major part or all in UK and about 10 percent in the other countries except Norway with only 3 percent.

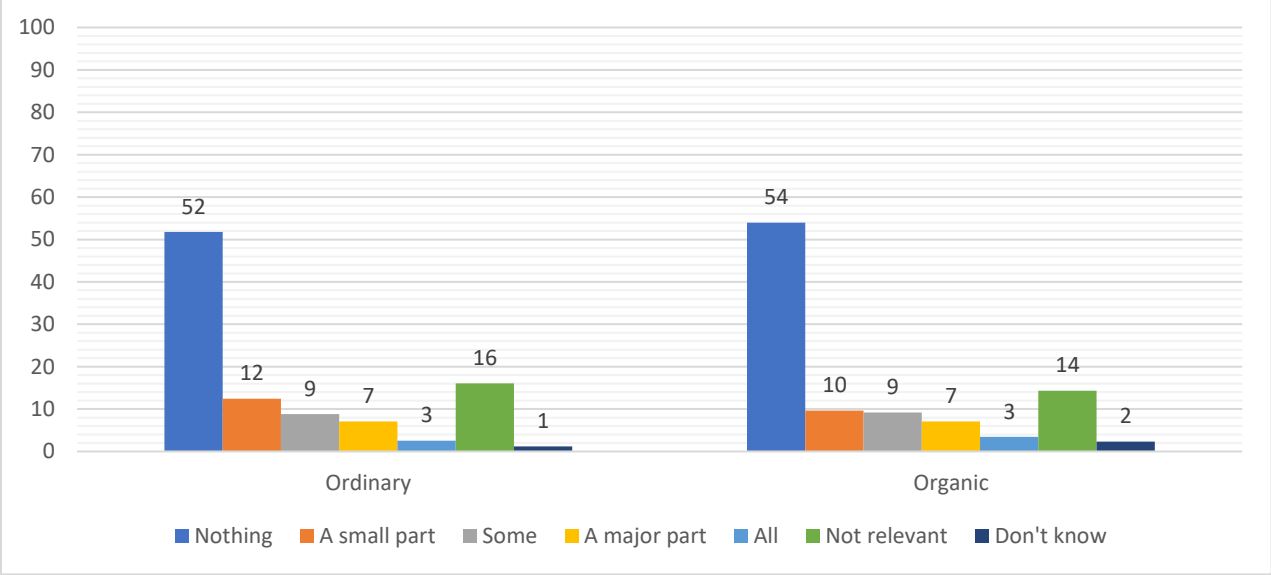

Figure 43 Online shopping All countries. Percent. N=15303 (Ordinary); N=12369 (Organic)

Online shopping was more common in the younger age groups, 44 years and below, than among the elder groups (45 and up) (Figure 45).

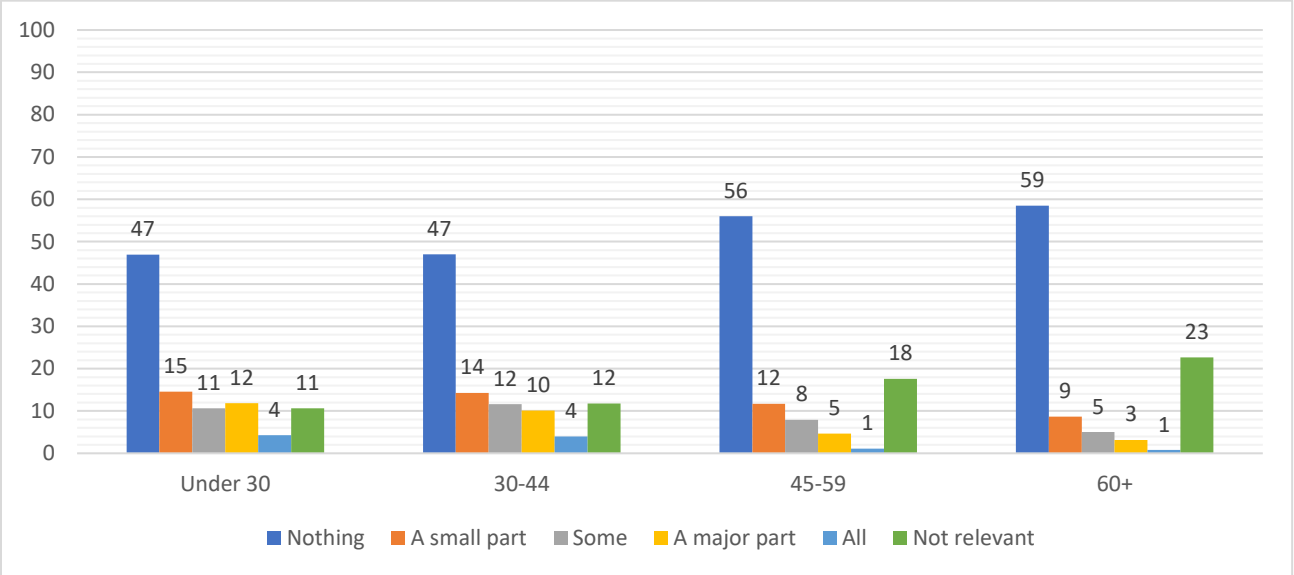

Figure 44 Online shopping. Age. Percent.

5.5 Food market

The importance of food markets showed great variations across Europe and about 30 percent of all respondents stated that they buy some, a major part or all food from food markets (Figure 46).

In Poland this figure was as high as 43 percent. In Italy 39 percent stated the same followed by France (35 percent) Spain (34 percent), and Germany (31 percent)[11]. In the UK 21 percent said that they buy some or more of their foods from food markets, while only nine percent of the Norwegians did the same (Vittersø et al., 2019). 58 percent of the Norwegians stated that they did not buy anything from these markets compared to 31 percent of the overall respondents (Figure46).

The survey confirms that food markets is a relatively important channel for provisioning of organic food. In total 37 percent of the respondents who eat organic food stated that they buy some/a major part / all organic food from food markets. Among the organic consumers in Poland as much as 53 percent stated to buy some or more of their organic food from these markets. Also, in Italy (39 percent), Germany (38 percent), France (38 percent) and Spain (37 percent) food markets play an important role. In the UK these markets are also relatively important to the organic consumers whereof 31 percent said that they buy some/an important part/ all organic food here. The same goes for Norway with 13 percent use these markets for organic purchases compared to only nine percent overall (Vittersø et al., 2019).

[11] As much as 17 percent of the German and 16 percent of the French respondents stated that this channel was not relevant to them.

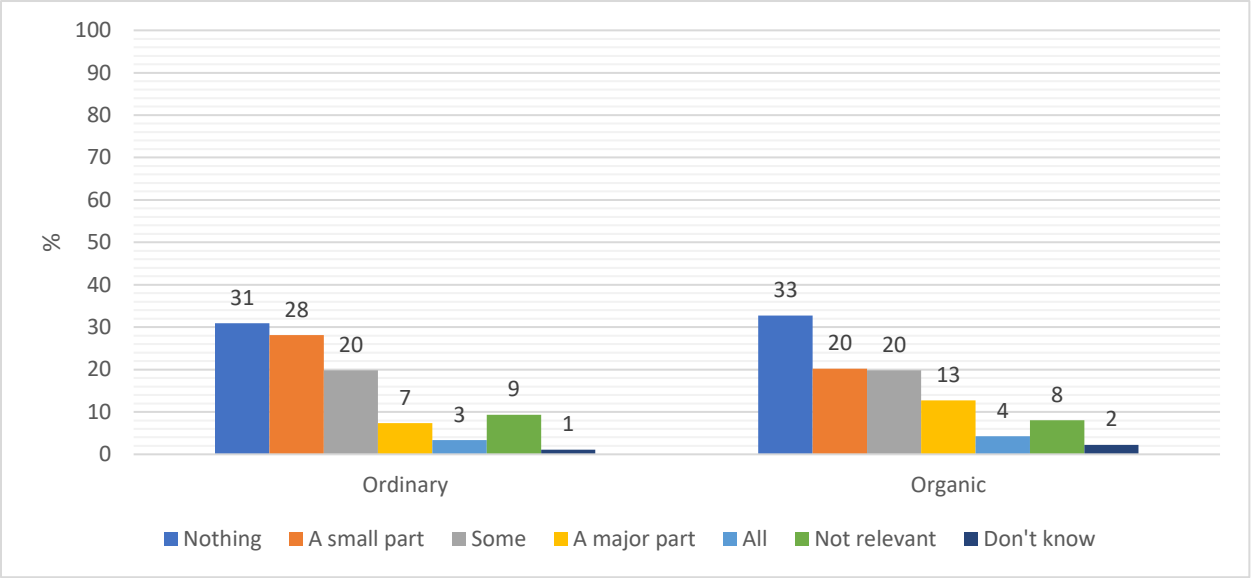

Figure 45 Food market. All countries. Percent. N=15304 (Ordinary); N=12367 (Organic).

5.6. Directly from a producer (farmer)

Buying directly from the producer is not as widespread as from food markets, but also here there are important variations across European countries. In all, about 20 percent said they provide some, a major part or all food directly from the producer (Figure 47).

About 25 percent of the respondents in Italy, France, and Poland bought some or more food direct from the producer (farmer), followed by Germany with 22 percent. The figures for UK and Norway were 16 and 11 percent respectively. However, buying directly from the producer was relatively more important for those who look for organic products. As much as 41 percent of the organic consumers in Poland and Italy (39 percent), followed by Germany (35 percent), France (30 percent) and Spain (28 percent) bought some or more organic food directly from the producer. Less importance in the UK (26 percent) and Norway (13 percent), but still relatively more important for the organic consumers compared to general consumers also in these countries (Vittersø et al., 2019).

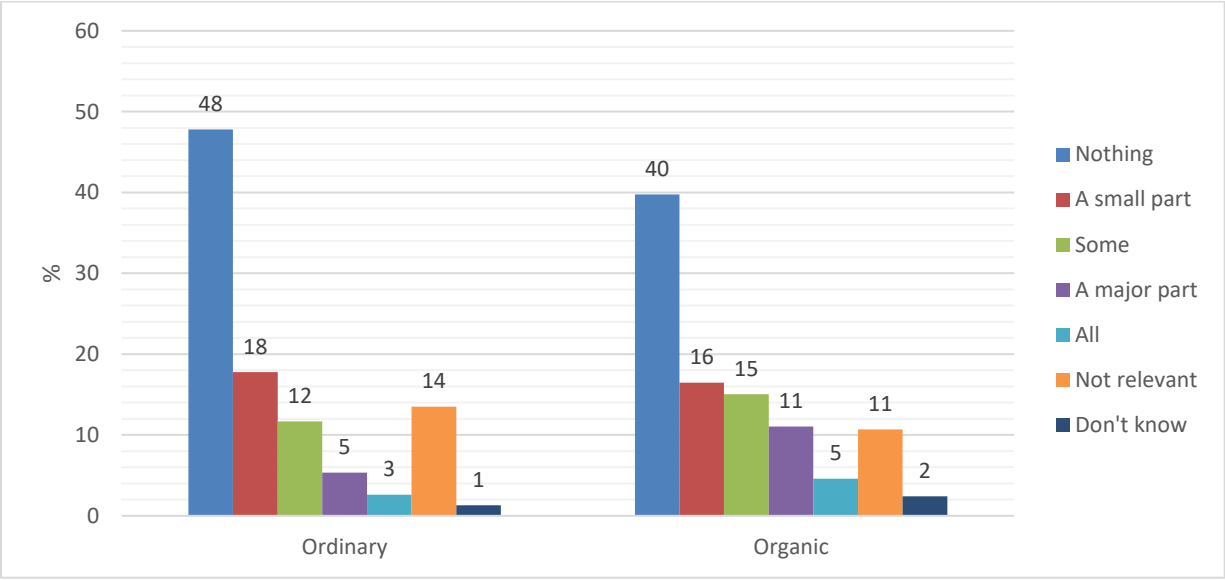

Figure 46 Directly from producer. All countries. Percent. N=15301 (Ordinary); N=12369 (Organic).

5.7 Eating out and having a take-away meal

It was considerable differences regarding frequencies between eating out and take-away meals. More than 40 percent of the respondents reported to eat out once a week or more often while 28 percent stated to have a take-away meal more than weekly (Table 20). While about 9 percent stated that they never eat out, as much as 25 percent reported to never ordering take-away.

Table 20 Frequency of eating out and having take-away meals. Percent.

	Eat out	Take-away
Daily	3,1	1,7
4-6 times/ week	5,1	3,0
2-3 times/week	11,8	7,2
Once a week	22,1	15,9
1-3 times/ month	29,0	22,4
Less than monthly	19,3	24,1
Never	8,9	25,0

It was clear differences between countries regarding frequency of eating out. In Norway the most common was to go out 1-3 times a month (43 percent) or less often (26 percent). In the UK more than 40 percent ate out once a week or more often and more than 10 percent as often as 4 times or more. In Poland 25 percent stated to go out to eat once a week and nearly as many (23 percent) did this even twice a week or more often. In Germany 34 percent ate out oftener than once a week and 30 percent 1-3 times a month. In Italy nearly 30 percent said to go out to dine once a week and about 20 percent twice a week or more often.

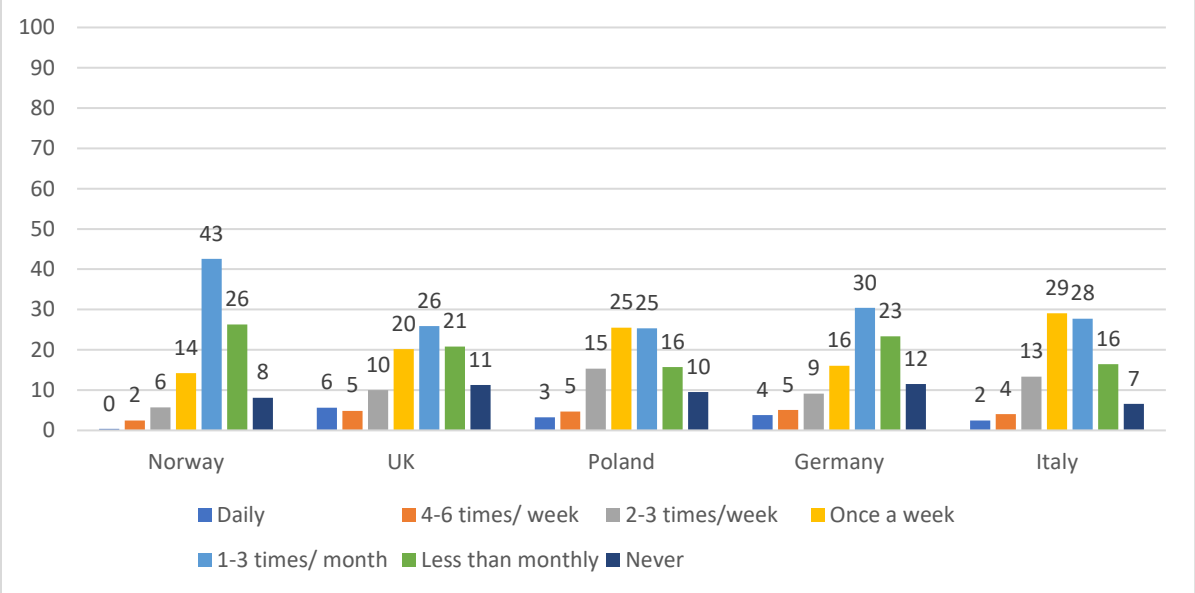

Figure 47 Frequencies of eating out. Country. Percent.

We found clear socio-demographic differences regarding both eating out and take-away. In general, men to a larger extent (45 percent) than women (39 percent) reported to eat out once a week or more often. The same relation was found for ordering a take-away meal (30 vs. 26 percent).

Table 21 Frequency of eating out and having take-away meals. Gender. Percent.

	Eat out		Take-away	
	Men	Women	Men	Women
Daily	4,1	2,1	2,4	1,2
4-6 times/ week	6,5	3,8	3,7	2,2
2-3 times/week	13,0	10,6	8,1	6,4
Once a week	21,9	22,3	16,0	15,8
1-3 times/ month	26,8	31,1	21,7	23,0
Less than monthly	18,4	20,3	23,0	25,1
Never	8,8	9,0	24,3	25,6
Don't know	0,6	0,8	0,8	0,7
Total	100,0	100,0	100,0	100,0

Younger under 30 clearly ate more out (57 percent once a week or more often) and having take-away meals (45 percent once a week or more often) more often than the older age groups. Among those 60+ about one in four dined out once a week or more often while only 8 percent were having take-away meals as frequent. As much as 46 percent in this age group reported to never order take-away.

Table 22 Frequency of eating out. Age. Percent.

	Under 30	30-44	45-59	60+	Total
Daily	5,2	4,9	1,4	0,7	2,7
4-6 times/ week	8,0	7,1	4,0	1,6	4,7
2-3 times/week	18,1	14,2	9,4	5,7	10,9
Once a week	26,2	23,9	20,7	17,1	21,3
1-3 times/ month	28,2	28,0	30,4	31,3	29,7
Less than monthly	9,4	15,0	23,1	28,8	20,6
Never	3,8	6,2	10,6	14,4	9,5
Don't know	1,1	0,7	0,5	0,5	0,6
Total	100,0	100,0	100,0	100,0	100,0

Table 23 Frequency of having take-away. Age. Percent.

	Under 30	30-44	45-59	60+	Total
Daily	1,9	3,4	0,5	0,3	1,4
4-6 times/ week	5,7	4,9	1,7	0,2	2,7
2-3 times/week	12,3	10,0	4,8	1,5	6,3
Once a week	25,2	19,7	13,6	6,3	14,8
1-3 times/ month	30,1	26,3	23,6	13,7	22,2
Less than monthly	14,7	21,3	27,8	31,0	25,0
Never	9,3	13,7	27,3	46,5	26,9
Don't know	0,9	0,7	0,7	0,6	0,7
Total	100,0	100,0	100,0	100,0	100,0

It was also clear differences between educational groups and half of those with masters' degree or higher stated to eat out once a week or more often while about one third of those with only primary

school reported the same. Among this group more than 15 percent stated to never eat out compared to 6 percent among those with university degree (Table 24).

Table 24 Frequency of eating out. Education. Percent.

	Primary school	Secondary school	Vocational college	University degree (Bachelor)	University degree (Master or higher)	Total
Daily	2,5 %	2,4 %	2,1 %	3,1 %	5,8 %	3,1 %
4-6 times/ week	7,0 %	3,4 %	4,3 %	6,6 %	6,8 %	5,2 %
2-3 times/week	9,0 %	11,4 %	9,4 %	13,4 %	14,7 %	11,8 %
Once a week	13,5 %	21,4 %	20,9 %	25,0 %	23,3 %	22,2 %
1-3 times/ month	20,3 %	29,1 %	29,3 %	29,4 %	27,8 %	28,9 %
Less than monthly	30,7 %	20,3 %	23,3 %	15,9 %	15,0 %	19,3 %
Never	15,8 %	11,3 %	10,1 %	5,9 %	6,4 %	8,9 %
Don't know	1,1 %	0,8 %	0,6 %	0,7 %	0,3 %	0,7 %
Total	100,0 %	100,0 %	100,0 %	100,0 %	100,0 %	100,0 %

The differences were not as great for take-away. Among those with the highest education level one in three reported to have take-away once a week or more often compared to one in four (26 percent) among the lowest educated. On the other hand, one in three of those with only primary school reported to never order take-away compared to one in four in the overall sample.

Eating out differed between income groups in all countries, but with interesting national differences (see tables in appendix). UK was the country with the greatest difference between the lowest (33 percent eating out once a week or more often) and highest income groups (71 percent). While Norway had the lowest share stating to eat out this frequent (23 percent) and with small differences between income groups. Germany, like UK, had larger differences between the income groups (20 percent among lowest and 45 percent among highest), and with the highest percentage stating to never eat out: 26 percent in Germany compared to UK 20 percent.

The pattern was quite different for having take-away meals. Also, here Germany (18 percent) and Norway (22 percent) had the lowest scores and with small differences between the lowest and highest income groups. In the other countries about one in three reported to have a take-away meal once a week or more often. While the lowest income group scored highest in Italy (45 percent), the highest frequency was among those with the highest incomes in the UK (50 percent).

The respondents who stated that they eat organic food, were also asked whether they looked for organic food when eating out. In all, 23 percent never asked for organic food when eating out and in addition 18 percent answered that this usually was not an option. These figures were significantly higher for take-away meals, were 41 percent never asked and 21 percent stated that this was usually not an option. 43 percent stated that they sometimes ask for organic when eating out. Again, it was significant differences between the countries (Vittersø et al., 2019).

6. Discussion and conclusion

6.1 Utilization

The survey pictures some general findings with relatively high frequencies of meat and lower levels of fish and fruit consumption, however, the dietary pattern is quite diverse across countries as well as socio-demographic and -economic characteristics. We believe that some of these differences may be attributed to what we may term bio-cultural diversity across European countries. Italian and Spanish respondents report less frequent intake of meat and relatively high intake of fish, fruits and vegetables, that to some extent may correspond to the ideals of the Mediterranean diet. The other countries were higher in meat intake while differed more in other foods. For instance, Norway reported the highest frequency of fish consumption, a relatively high intake regarding vegetables, but lowest when it comes to fruits. Historically, it has been abundancy of fish, while fruits have been limited due to climatic conditions. However, fish consumption is in decline also in Norway. Polish respondents reported frequent use of vegetables, especially potatoes, but also fruit. Germany and the UK were above average in meat intake, while low in fish. UK respondents reported average frequency of vegetable consumption while high intake of potatoes. The German respondents were low in frequency of vegetables. Vegetable intake seems to increase with education. Also for other foods we found differences along socio-economic and socio-demographic variables. Women scored lower for intake of meat while higher on vegetables and fruits. The same pattern was found for age. Vegetables, fruits and fish consumption increased with the age, while meat consumption was highest among the youngest age group. These variations across socio-demographic and socio-economic variables seem to align with results from other European studies (Roos et al., 2001; Stea et al., 2020).

6.2 Access to food

Regarding access to food it was differences across countries that we believe are related to different cultural, social and economical conditions. For instance, Italians and to some respect the French and Spanish respondents were oriented towards knowing how and from where food is produced. The Italians differed especially in the way they are considering meat in terms of how the animals are reared. They to a greater extent emphasized the origin of the food, knowing the producer and that food is local and in season. Also, the Polish respondents were concerned about knowing the producer and buying organic food which may be strategies to get access to safe and good quality foods. A relatively large share of the Polish respondents was growing their own food, in spite of a relatively high share of urban respondents.

Less than one percent of the respondents said they do not eat any food of animal origin, and less than three percent did not have meat or fish other than dairy products and egg. Contrasted to the increasing public attention to veganism and vegetarianism these figures are low (Jallinoja et al., 2020). It was some national differences with the highest scores in Germany and the UK on vegetarianism and veganism.

The UK respondents together with Norwegians showed less interest in credence qualities and sustainable food practices such as buying local and organic food. The UK respondent were most concerned with price and income was more decisive for frequent consumption of organic food than in the other countries. Norway stands out in the sense that it has the highest share of those eating meat on a regular basis and the highest share that stated not be willing to reduce meat consumption. In addition, Norwegians scored the lowest on local, seasonal and organic food consumption. However, they to the greatest extent spared left-overs for later use and were most actively harvesting from nature.

We also found socio-demographic differences such that women to a greater extent are flexitarians and vegetarians and scores overall higher on the sustainability practices we have researched here. In general, we found that the oldest age groups score high on sustainability practices except for consumption of organic food.

6.3 Food availability

With some exceptions Europeans buy most of their food from hypermarkets/large supermarkets. This is also true for organic food. However, in Norway the smaller supermarkets are most important for food provisioning and Norwegians to a lesser extent than the other countries make use of different provisioning modes. Italians together with the Polish respondents to a greater extent used food markets and direct purchase from producers as provisioning modes than in the other countries. This may reflect that traditional markets to a greater extent are alive and present here compared to for instance the UK and Norway. These direct supply channels were also relatively more important for provisioning of organic than "ordinary" food. Online food shopping was, with exception for the UK, not very widespread. This might have changed under the COVID19 pandemic (Nemes et al., 2021). Frequencies of eating out and having take-away also differed between countries. While half of the Italians and nearly the same for Polish respondents reported eating outside home once a week or more often, only one in four of the Norwegians did the same. As much as 10 percent of the UK respondents were eating out more than 4 times a week. However, the differences between the highest (most frequent) and lowest income groups were most evident in the UK. In general, men more than women and younger more than older used to go out to eat and have take-away meals.

6.4 Concluding remarks

This comparative study confirms significant differences across European countries regarding eating patterns and food practices. However, we also find some general socio-demographic trends that cut across the regional divide. Regarding eating patterns important differences between men and women as well as younger and older age groups were found. Women eat less meat and more vegetables and fruits than men. The same goes for older age groups compared to younger in addition to that the oldest also eat more fish than younger age groups.

The Mediterranean countries, such as Italy and Spain, seem to have a more varied diet with higher frequencies of vegetables, fruit and fish and relatively lower frequencies of meat, compared to the northern European countries. This may indicate a difference in food culture between north and south in Europe – a bio-cultural diversity, however that may also be connected to differences in agrobiodiversity and access to food. For instance, the Norwegian respondents reported lower frequencies of fruit consumption that may have to do with poorer access to local, seasonal and affordable fruits compared for instance to southern European countries like Italy.

From previous research it is suggested that the south-Europeans link quality with culture, origin, taste and typicity; while in the north of Europe quality is more linked with visual appearance, shelf-life, nutrition, hygiene etc. (Amilien, 2011; Barjolle & Sylvander, 2000). To some extent this is also true for the results of this survey. Overall, taste, freshness/best before date and price scored highest with exception for the Italian, Spanish and to some extent also French consumers (e.g. regarding apples). Respondents in these countries to a great extent emphasized credence qualities such as seasonality and origin both regarding country (national production) and place (produced in my local area) of origin. The respondents in these countries also valued specific varieties of apples higher than in the other countries. The same pattern was evident regarding the sustainability practices where the Italians to a greater extent reported buying local and seasonal food and together with the Polish respondents also used local markets and direct purchases from the producer, more than other

European respondents. This might be related to the food market structure in these countries where supermarkets to a lesser extent than in the Northern European countries have replaced traditional food markets and other modes of food provisioning. These different food provisioning practices and strategies may also be attributed to varying institutional conditions related to consumer's trust in the food system (Halkier et al. 2007; Kjærnes, 2006). The Polish consumers might be more similar to the Italians in the sense that they have a lower general trust in the food system (see Vittersø et al., 2019), thus, are more concerned about the provenance and modes of production in their food provisioning strategies.

In the research literature it is often stated that consumption of local and organic food is related to higher socio-economic status. In this report we have found that this to some extent is true for organic food, but it varies between countries and the income divide is most prominent in the UK and Germany. A deeper understanding of the factors that influences sustainable food practices as well as how and why these practices vary on national and regional scales, needs further statistical analyses supplemented with qualitative methods that will be conducted at later stages within the FOOdIVERSE project.

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Appendix 1

Table 25 Frequency of eating out. Norway. Percent.

	Low	Medium low	Medium	Medium high	High	Total
Daily	2,2	0,3			0,4	0,4
4-6 times/ week	4,0	2,3	1,8	2,0	2,0	2,4
2-3 times/week	5,8	5,4	6,2	8,7	4,9	5,7
Once a week	11,6	13,2	15,9	13,4	19,1	14,2
1-3 times/ month	37,5	41,9	43,0	46,5	46,7	42,5
Less than monthly	26,8	27,4	25,9	25,4	20,7	26,3
Never	11,6	9,6	7,2	4,0	5,7	8,1
Don't know	0,4				0,4	0,3
Total	100,0	100,0	100,0	100,0	100,0	100,0

Table 26 Frequency of eating out. Income. UK. Percent.

	Low	Medium low	Medium	Medium high	High	Total
Daily	1,9	2,6	3,5	12,8	19,0	5,6
4-6 times/ week	4,2	2,4	3,1	9,4	16,4	4,9
2-3 times/week	10,6	5,1	12,4	14,1	16,9	10,0
Once a week	16,4	13,7	24,1	26,3	19,0	20,2
1-3 times/ month	21,2	32,0	30,5	21,9	14,8	25,9
Less than monthly	24,8	27,0	18,9	11,3	5,8	20,8
Never	19,9	15,6	7,3	4,1	6,3	11,3
Don't know	1,0	1,7	0,2	0,3	1,6	1,3
Total	100,0	100,0	100,0	100,0	100,0	100,0

Table 27 Frequency of eating out. Income. Poland. Percent.

	Low	Medium low	Medium	Medium high	High	Total
Daily	11,5	3,9	2,3	2,8	2,2	3,3
4-6 times/ week	5,1	7,8	3,2	3,0	6,7	4,7
2-3 times/week	3,2	14,6	17,3	15,9	20,7	15,3
Once a week	24,2	20,6	23,7	27,4	27,2	25,5

1-3 times/ month	14,0	26,0	26,3	27,0	27,9	25,4
Less than monthly	21,7	16,7	16,5	15,5	10,5	15,7
Never	19,1	9,6	10,5	8,5	4,5	9,5
Don't know	1,3	0,9	0,3		0,2	0,7
Total	100,0	100,0	100,0	100,0	100,0	100,0

Table 28 Frequency of eating out. Income. Germany. Percent.

	Low	Medium low	Medium	Medium high	High	Total
Daily	5,3	5,0	3,2	4,1	2,8	3,8
4-6 times/ week	3,1	5,8	4,7	4,8	8,8	5,1
2-3 times/week	1,3	4,3	14,3	11,6	12,4	9,2
Once a week	10,2	13,6	14,8	21,0	21,1	16,0
1-3 times/ month	19,5	29,1	30,1	31,4	34,3	30,4
Less than monthly	32,7	26,1	23,7	20,0	14,7	23,3
Never	26,1	14,6	9,2	6,5	6,0	11,5
Don't know	1,8	1,5		0,5		0,6
Total	100,0	100,0	100,0	100,0	100,0	100,0

Table 29 Frequency of eating out. Income. Italy. Percent.

	Low	Medium low	Medium	Medium high	High	Total
Daily	1,4	2,7	1,4	2,5	5,3	2,4
4-6 times/ week	8,6	3,9	3,2	4,7	5,7	4,1
2-3 times/week	16,3	13,6	10,7	18,5	13,7	13,4
Once a week	25,8	32,0	28,6	24,4	29,1	29,1
1-3 times/ month	21,3	24,5	30,6	29,5	30,4	27,7
Less than monthly	15,8	14,8	19,5	14,5	12,8	16,5
Never	10,0	8,2	5,8	5,5	3,1	6,6
Don't know	0,9	0,3	0,2	0,4		0,3
Total	100,0	100,0	100,0	100,0	100,0	100,0

Appendix 2

Table 30 Respondents' education level. Country. Percent.

	No school	Primary Sc	Secondary	Vocationa	University	University	Other	No respon	Total
Norway	0,1 %	3,1 %	15,8 %	16,7 %	33,2 %	29,0 %	0,4 %	1,7 %	100 %
France	0,1 %	1,2 %	21,1 %	28,1 %	30,4 %	17,2 %	1,4 %	0,5 %	100 %
UK	0,7 %	0,9 %	31,4 %	23,0 %	27,5 %	15,2 %	0,8 %	0,4 %	100 %
Spain	0,1 %	2,4 %	18,5 %	28,3 %	34,5 %	14,8 %	0,9 %	0,4 %	100 %
Poland	0,2 %	1,1 %	38,1 %	9,2 %	13,9 %	36,3 %	0,8 %	0,5 %	100 %
Italy	0,2 %	2,2 %	31,3 %	29,5 %	21,1 %	14,4 %	1,1 %	0,2 %	100 %
Germany	0,2 %	2,5 %	17,5 %	50,8 %	12,2 %	14,5 %	1,5 %	0,9 %	100 %

Table 31 Place of residence. Frequencies and percentages.

Do you live in:	Country							
	Norway	**France**	**UK**	**Spain**	**Poland**	**Italy**	**Germany**	**Total**
Center of big city	405	424	472	1011	852	547	591	4302
	19.55	*18.36*	*20.53*	*45.03*	*37.75*	*24.19*	*25.57*	*27.31*
Suburb of big city	339	303	574	337	288	343	355	2539
	16.36	*13.12*	*24.97*	*15.01*	*12.76*	*15.17*	*15.36*	*16.12*
Small city	607	687	439	615	702	879	759	4688
	29.30	*29.75*	*19.10*	*27.39*	*31.10*	*38.88*	*32.84*	*29.76*
In a small town	396	511	724	254	143	365	409	2802
	19.11	*22.13*	*31.49*	*11.31*	*6.34*	*16.14*	*17.70*	*17.79*
Countryside	325	384	90	28	272	127	197	1423
	15.69	*16.63*	*3.91*	*1.25*	*12.05*	*5.62*	*8.52*	*9.03*
Total	2072	2309	2299	2245	2257	2261	2311	15754
	100.00	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*	*100.00*

Pearson chi2(24) = 1.8e+03 Pr = 0.000

Table 32 What is your households total net monthly income? Norway. NOK. Frequencies and percentages.

		Frequency	**Percent**
Low	< 20 000 kr	224	11
Medium low	20 000 - 39 999 kr	387	20
Medium	40 000 - 59 999 kr	501	25
Medium high	60 000 - 79 999 kr	299	15
High	> 80 000 kr	245	12
Don't want to answer		256	13
Don't know / NA		65	3
Total		1976	100

Table 33 What is your households total net monthly income? UK. GBP. Frequencies and percentages.

		Frequency	**Percent**
Low	< 1000 £	310	13
Medium low	1001 - 2000 £	585	25
Medium	2001 - 3500 £	654	28
Medium high	3501 - 6000 £	320	14

High	> 6000	190	8
Don't want to answer		156	7
Don't know / NA		86	4
Total		2300	100

Table 34 What is your households total net monthly income? Poland. PLN. Frequencies and percentages.

		Frequency	Percent
Low	< 2000 zł.	155	7
Medium low	2001 - 3000 zł.	334	15
Medium	3001 - 5000 zł.	691	31
Medium high	5001 - 7500 zł.	470	21
High	> 7501 zł.	401	18
Don't want to answer		85	4
Don't know / NA		122	5
Total		2258	100

Table 35 What is your households total net monthly income? Germany. EURO. Frequencies and percentages.

		Frequency	Percent
Low	< 1000 €	226	10
Medium low	1001 - 2000 €	537	23
Medium	2001 - 3500 €	684	30
Medium high	3501 - 5000 €	413	18
High	> 5000 €	251	11
Don't want to answer		58	3
Don't know / NA		142	6
Total		2312	100

Table 36 What is your households total net monthly income? Italy. EURO. Frequencies and percentages.

		Frequency	Percent
Low	< 600 €	221	10
Medium low	6001 - 1500 €	588	26
Medium	1501 - 2700 €	625	28
Medium high	2701 - 3500 €	273	12
High	> 3500 €	226	10
Don't want to answer		171	8
Don't know / NA		158	7
Total		2262	100