FINAL REPORT

Consumer Market Study on the Functioning of the meat market for consumers in the European Union SANCO/2009/B1/010

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Final Issue: December 2012

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EXECUTIVE SUMMARY

A. Background and objectives

Every year, the Commission monitors the functioning of the most important goods and services markets in the EU. The results are presented in the Commission's Consumer Market Scoreboards. A Market Performance Index (MPI) is calculated for each market based on several indicators: comparability, trust, problems and complaints, switching behaviour and expectations. Markets are ranked according to their MPI.

The meat and meat products market was ranked 28th out of 50 consumer markets in 2010, but in the overall ranking of goods markets, this market came 17th out of 19. As a result, the functioning of the meat market for consumers was identified as requiring further research.

The objective of this study is to analyse which aspects of the meat market do not function well for consumers. Therefore, it explores different areas and issues that impact on the functioning of the market for consumers, such as choice, quality, safety, health, sustainability, origin, waste, prices and information, as well as consumer behaviour and decision making. The findings inform general consumer policy, with a particular focus on actions related to information, as well specific policy areas, such as food waste or origin labelling.

B. Framework for the analysis

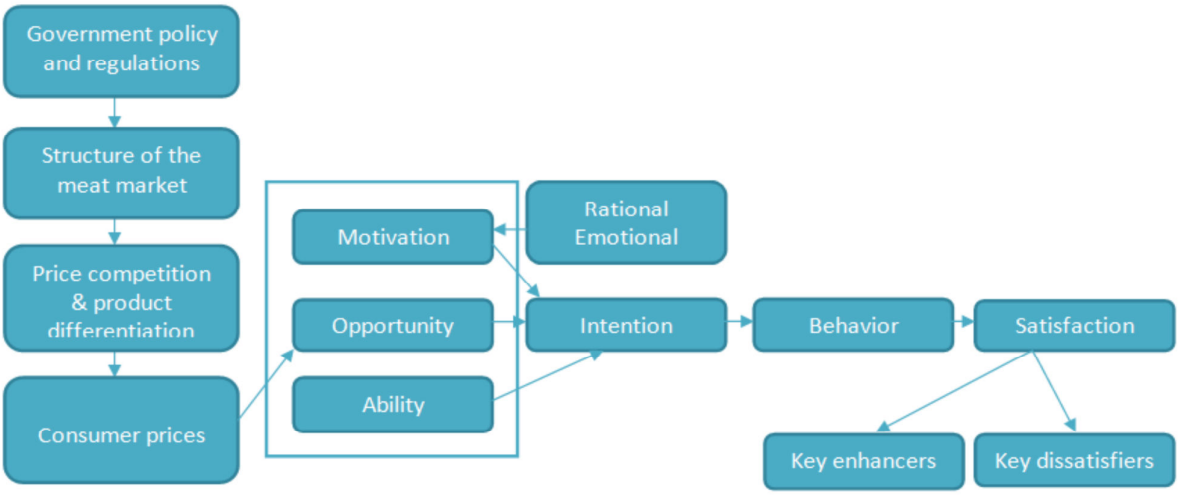
For the purpose of this study, the meat market was defined as follows: *fresh meat (including frozen meat and meat preparations) and processed meat products covering beef, pork, lamb and poultry, which are available for final customers at the end of the food supply chain (at the retailer).* Catering services were not included.

The analysis is based on an analytical framework which uses information and data collected via different tools. A consumer survey of 13477 consumers in the 27 EU Member States was executed in order to deliver consumer perceptions of the market and broaden the knowledge of the consumer decision-making process when purchasing meat. A mystery shopping audit of 10570 products in the 27 EU Member States was conducted in order to gather data on the availability of products and information items, and to collect the prices of different meat products across countries and purchase channels. Results of the consumer survey and the mystery shopping exercise were analysed using the analytical framework and were complemented with the results of stakeholder consultations and desk research.

An expert group of specialists from CapGemini, LEI Wageningen UR, GfK Kynetec and GfK Mystery shopping provided additional advice and insight throughout the study.

The study is organized using an analytical framework which shows the different drivers that impact on consumer welfare in the meat market. The aim was to be able to identify potential links between main elements of the theoretical model as well as key issues within the particular elements of this model in order to translate them into policy options. The analytical framework is split into two parts: structural elements defining market conditions, and the consumer decision making process. The elements of the theoretical model are defined below.

Theoretical model of the functioning of the meat market for consumers



Market conditions

- **Government policy and regulations** shape the other elements of the market.
- The **structure of the market** is related to the supply chain and to the concentration of retail.
- **Product differentiation** is linked to the choice of different types of products and their differentiation using marketing strategies.
- **Consumer prices** are linked to the market structure and price competition.

Consumer decision making

- **Motivation** is the consumer's willingness to engage in behaviour.
- **Opportunity** is linked to the consumer's environment, including the retailer, labelling and the availability and accessibility of products.
- **Ability** is a consumer's ability to purchase meat in financial terms, but also in terms of problem-solving and understanding of information.**Intention** refers to decision-making just before the purchase and **behaviour** stands for the purchase activity itself.
- **Satisfaction** includes post-purchase satisfaction linked to preparation and consumption.

Within this framework, several issues are addressed: origin, health, safety, sustainability, animal welfare and quality. Other topics of interest are production methods, experience attributes, complaints, food waste, labelling, media, trust, information, ethics and cues that consumers use when buying meat.

This executive summary provides a detailed insight into this model by focussing on the specific findings *within* each of the separate blocks of the model. Conclusions and recommendations on specific areas are also summarised.

C. Consumer decision-making

In the analysis of consumer decision making, the linkages between the blocks presented in the above model are explored in detail. The hypothesis was that strong relationships would exist between the different blocks. However, analysis of the survey results indicates that this is not the case. The statistical relationship between the different blocks of the model is not large.

However, certain relationships do exist. For example, consumers that look for information on specific meat types are more likely to buy these types of meat more often and consumers that use media as information sources are more likely to look for information about nutrition and specific meat types. Consumers that use labels as their only information sources are more likely to focus on information about price. Given the weak correlations found between other blocks, it can be concluded that the only consistently strong relationships are found between the blocks of motivation and opportunity, and between intention and motivation. The other blocks mainly stand on their own. Therefore, the consumer decision making process can be reduced in practice to interactions between consumer opportunities and consumer motivation when buying meat and meat products; and between consumer motivation and their intentions to buy meat and meat products.

a. Motivation

Consumers were asked to indicate the most and least important factors that they take into account when purchasing meat, from a list of 17 possible factors. Based on this data, importance scores were calculated. The scores for the 17 factors add up to 100%, thus the average is 5.9%. The most important factors, above this average, are **sensory cues** ('the meat looks fresh' with 10.2%, 'the meat looks tasty' with 8.7% and 'the meat is displayed hygienically' with 8.4%), **price** ('the price is reasonable' with 8.1% and 'the price is affordable' with 7.9%) and **origin** ('the meat is produced in my country' with 7.9%). Aspects such as traceability or time before reaching use by/best before date are of average importance (6.5% and 5.6% respectively). Specific meat types are relatively less important ('the meat is organic', 'the meat is animal welfare certified' or 'the meat is produced according to environmental standards' with respectively 3.3%, 4.8% and 4.8%).

Consumer priorities are consistent with their information-seeking behaviour. For instance, if organic certifications are important to a consumer, they are more likely to be aware of this type of product and to look for this type of information on meat.

In addition to the question on the most and least important factors, consumers were also presented with a list of information items that they may look at when buying meat. A large majority of EU consumers look at the **use by/best before date** (68%), the **price** (67%) and the **price per kilogram** (67%). This matches to some extent with the consumer priorities identified above. Other aspects looked at by more than 20% of consumers are the **country of origin** (48%), the **producer** (44%), **ingredients** (32%), **origin certifications** (26%), **animal welfare** certifications (22%) and **nutritional values** (21%). Aspects that consumers look for least often are **slaughtered according to religious rites** (8%), **made from combined meat pieces** (12%), **environment/climate** certifications (12%), **GMO-free feed** (17%), **organic** certifications (18%) and meat with **nutrition claims** (18%).

EU12 consumers are more likely to look at the use by/best before date (77% in comparison to 65% of EU15 consumers), **the price per kilogram** (74% vs 66% in EU15), **the price** (70% vs 66%) and **producer** information (56% vs 40%). **EU15 consumers are more likely to look at origin certifications** (28% vs 19% in EU12), **animal welfare certifications** (24% vs 14%), **organic** information (20% vs 11%), **nutrition claims** (19% vs 15%), **GMO free feed** information (18% vs 13%), **environment or climate** certifications (13% vs 6%) and **religious slaughter** information (10% vs 4% in EU12).

Consumers look at **5 aspects on average**, but this figure is **higher for consumers who use a larger number of information sources**.

Information aspects that consumers look for match to some extent with the availability of relevant information in the consumer's country, as assessed in the mystery shopping audit. In general, consumer information-seeking behaviour is driven by four aspects; namely, interest in specific meat types, nutrition, origin and price.

b. Opportunity

Consumers were asked to identify their main sources of information when purchasing meat. The most frequent answers are **labels on the packaging** (68%) and **labels on the shelf/counter** (59%), followed by **staff at the retailer** (56%). Consumers use **4 information sources on average**.

EU12 consumers are more likely than EU15 consumers to use **staff at the retailer** (63% compared with 54%) or **family and friends** (44% compared with 27%) as sources. **EU15** consumers are more likely than EU12 consumers to get information from **consumer organisations** (16% compared with 7%) and **NGOs**[1] (13% compared with 6%), or from the **Internet** (14% compared with 9%).

A mystery shopping audit was conducted to assess the availability of a range of information items on meat, either on labels or by asking retailer staff. The audit results match consumers' interest to some extent. The **use by/best before date** was **available on 90% of products assessed**, the **price per unit on 92%** and the **country of origin on 86%**. The information was less available in butchers than in hyper- or supermarkets.

Other information items were less likely to be available, such as origin certifications (40% of products), nutritional value information (44%), organic information (15%), animal welfare certifications (20%), and nutritional or health claims (18%). Consumers are also less likely to look at these items when purchasing meat.

Turning to purchase channels, **40% of EU consumers use a supermarket as their main retailer** for meat, followed by **butchers (25%)** and **hypermarkets (18%)**. Smaller proportions mention **grocery or convenience stores (7%)**, **discount stores (6%)**, **farms (2%)** or **markets (2%)**.

Although the main retail channel for consumers is supermarkets and hypermarkets , these are less likely to be their preferred retailer (respectively 28% and 13%). The opposite can be seen for butchers and farms, with respectively 36% and 7% of consumers saying they are their preferred retailers, compared with 25% and 2% mentioning them as the main retailer that they currently use.

Aside from their main retailer, most consumers use a number of other retailers for their meat purchases, with overall 94% buying in a supermarket, a hypermarket, a grocery/convenience stores or a discount store, and 66% using a butcher's shop, farm or market.

Over one third of EU consumers (39%) say that they do not use their preferred retailer as their main retailer. They mention reasons such as **high prices (36% of those not buying mainly in their preferred channel)**, being able to do **all their shopping in one go** at their main retailer **(32%)** or because their preferred retailer is **too far away (31%)**. For 61% of EU consumers, their main retailer is also their preferred retailer because, for over half of them, factors such as the choice of products, prices and access are suitable to their needs.

[1] Non-governmental organisations

c. Ability

Consumer ability is limited in terms of understanding and knowledge of the meat market. Consumers were asked for the **meaning of three labelling items**. Awareness figures were fairly low, with **4% identifying the correct meaning of the Protected Designation of Origin (PDO)** logo, **23%** the meaning of a **'low fat'** label and **36%** the meaning of a **'best before'** date.'

The difference in the proportion of correct answers between the EU15 and EU12 is minimal for the PDO logo, with respectively 5% and 3% correct answers. The proportion of correct answers for the 'low fat' claim and the 'best before' date was higher among EU15 consumers than EU12 consumers, with respectively 24% and 19% of correct answers for the 'low fat' claim, and 40% and 20% for the best before date.

When asked which meat types they were aware of, **76%** of consumers say they **know meat for which the country of origin is specified** and **55%** know **origin certified meat** (meat with quality certifications referring to its origin[2]). These are also the two types mentioned most frequently for purchases. However, less than half of consumers are aware of other specific meat types: **organic (49%), animal welfare certified (44%), meat with nutrition claims (35%), slaughtered according to religious rites (25%), or environment/climate certified (15%).** Besides, awareness differs significantly between countries, with EU15 consumers being generally more aware of specific types of meat.

Self-reported financial difficulties do not seem to impact on the categories (e.g. beef, pork, poultry, lamb) or types of meat (e.g. organic, with specific certificates) that consumers buy. However, consumers with financial difficulties are more likely to say that they 'want to buy meat less often in general' due to it being expensive (43% of consumers with financial difficulties, compared with 26% of other consumers), or they would like to buy specific meat types more often but they do not change their purchasing patterns because of higher prices for these particular meat types.

d. Intention and behaviour

Existing research shows that there is a gap between consumer intentions and behaviour, particularly for ethical products, which is supported by the survey results: many consumers declare an interest in ethical products but only smaller proportions purchase them. Prices, but also information, are key factors that explain this difference.

Consumers were asked if they would like to change their purchasing behaviour. **68%** say they **would like to buy** at least one specific type of meat **more often**, with **41%** mentioning **organic** meat, **40% animal welfare certified meat**, **39% origin certified meat** (meat with quality certifications referring to its origin) and **38% meat they would choose because of the country of origin**.

Consumers were asked why they do not already buy these meat types more often. The most frequent answer was 'it is too expensive' for all meat types except environment/climate certified and religious slaughter certified meat, for which respondents were more likely to answer 'I am not sufficiently well informed' (respectively 34% and 35% of answers). Other reasons often cited by consumers were insufficient choice or the lack of availability of such meat types at their retailer.

The survey was addressed to respondents who had bought meat or meat products at least once in the month before the survey. Among these consumers, 93% purchased meat products in the month before the survey, 89% fresh chicken and 79% fresh pork. Beef was mentioned by 67% of consumers, followed by turkey (43%), veal (36%) and lamb (26%).

[2] Respondents were given examples of origin-related quality certificates relevant for their country.

Looking at **purchases** of specific meat types, **60%** of consumers had purchased **meat for which the country of origin is specified**. **Origin certified** meat and **animal welfare certified meat** were also purchased by significant proportions of consumers (32% and 22% respectively), but proportions were smaller for all other types.

Consumers have a consistent behaviour in terms of purchases: **overall, consumers who have purchased a specific meat type in the past month are more likely to want to buy it more often and to look for related information items**. However, at individual country level, purchases did not match the availability of related information items for all meat types.

When asked about **meat waste, 23% of consumers** report that they had thrown away edible parts of meat or meat products **in the past month,** on average 3.5 times. This share of consumers is higher in the EU15 (25%) than in the EU12 (16%).

As the main reason for throwing meat away, consumers are most likely to mention the meat being **past its use by/best before date** (31% of those who reported waste) and '**I prepared/cooked too much**' (18%). Taking into account all reasons for throwing meat away, EU15 consumers are more likely to say the meat was past its use by/best before date or that they did not prepare the meat properly. EU12 consumers are more likely to say the meat had gone bad before the use by/best before date or that the taste was not what they expected. 7% of consumers who had thrown meat away in the past month did not report any financial loss. Other consumers lost on average 9€ per month.

32% of EU consumers would like to buy meat less often. **The most frequent reasons they mention for this is health** (54%) and that meat is too expensive (34%).

17% of respondents to the consumer survey eat meat every day, while 26% eat meat 4 to 6 times a week. On average, respondents eat meat and meat products 190 days a year, which equates approximately to every second day. Consumers in the EU12 eat meat more often than their EU15 counterparts, with 217 days on average. This figure is driven by high averages for meat products, chicken and pork. In contrast, the consumption of beef, turkey, veal and lamb is slightly more frequent in the EU15.

e. Satisfaction

Looking at specific aspects of the meat market, only 20% of consumers are **satisfied** (score 8 to 10 on a 10-point scale) with **price,** 18% with the **availability of environment/climate certified meat and 20%** with the **availability of animal welfare certified meat.** Consumers also seem concerned with the impact meat has on health – only 36% are satisfied with this aspect. Consumers are **most satisfied** with the **general availability of meat** (58% satisfied) and **hygienic conditions** (51%).

The impact that satisfaction with particular aspects of the meat market has on overall satisfaction with the market was calculated. Based on this correlation analysis, '**impact on health**' has a high impact on overall satisfaction but below average consumer satisfaction levels. It is therefore a **priority for improvement**. In contrast, aspects that have a high impact on overall satisfaction *and* high satisfaction levels are sensory cues, the availability of meat in general and the availability of meat produced in my country. **These are strengths of the market** according to consumer perceptions.

Results of further analysis show that four aspects have an impact on satisfaction for dissatisfied consumers: hygienic conditions, general availability, impact on health and time before the use by/best before date. **Three aspects drive satisfaction levels** for both satisfied and dissatisfied consumers and are key elements of consumer satisfaction: **taste**, **freshness** and the **availability of meat produced in the consumer's country**.

D. Market conditions

The analysis points to a developed regulatory policy, an acceptable structure in terms of supply, sufficient product differentiation (apart from products marketed with ethical values as explained later) and overall price divergence mechanisms throughout the EU. On the other hand, detailed market conditions[3] are not very well known to consumers.

a. Government policy and regulations

The meat market is highly regulated, particularly in terms of food safety. The regulatory framework is complex, and has various actors and levels. For instance, national regulations and the implementation of EC legislation can vary across Member States.

At the EU level, two in five consumers (**41%**) agree (score 8 to 10 out of 10) that 'In my country **appropriate measures are taken in case of a food risk** related to meat', whereas 13% disagree. Also, 41% agree with '**I always eat safe meat**' (11% disagree). These results differ significantly between countries. However, existing research shows that consumer perceptions are not necessarily aligned with actual regulatory conditions.

Around a third of consumers agree that **public authorities adequately ensure the safety of meat** in their country (35%, while 16% disagree). Similarly, **32%** agree that '**Producers and retailers adequately ensure meat safety standards**' (16% disagree). The same proportion agrees that **meat from the EU is safer** than from outside the EU (20% disagree).

Only a minority seems affected by media coverage, **with 21%** of consumers agreeing (8 to 10 out of 10) that **a media story on meat that might be unsafe changed their eating habits**.

b. Structure of the meat market

Existing research shows a **trend towards concentration in the food retail.** There is also evidence that consumers in all countries spend money on various categories of meat, which indicates that they have **access to a range of products**. Households with **higher expenditure** generally spend a **lower share** of their expenditure on meat, but this expenditure is **higher in absolute terms.** Households with **higher incomes** spend more on **beef**.

In terms of purchase channels, **online and cross-border shopping are still niche markets** but may grow in the future.

c. Product differentiation

The consumer survey shows that consumer **satisfaction with the availability of ethical products** is relatively **low,** with fewer than 25% of consumers saying they are satisfied (score 8-10 out of 10). In contrast, 58% say that they are satisfied with the overall availability of meat in their country.

This matches the results of the mystery shopping audit, as **large variations in the availability of products** were observed, across countries, meat types and purchase channels. Mystery shoppers were asked to

[3] Detailed market conditions are presented in the left part of the model.

prioritise regular, organic and origin certified meat[4] during their audits. Still, the fact that animal welfare, environment/climate and religious slaughter certified meat products each represent fewer than 5% of assessed products indicate that these products were not widely available. In general, it was harder to find such products in countries that joined the EU recently.

Mystery shopping data shows that **supermarkets and hypermarkets have a better choice** of specific meat types (e.g. organic, animal welfare certified) than butcher's shops and small retailers.

Existing data also shows that **imported meat** represents a **very small share of the market** when compared with the EU meat production.

d. Consumer prices

Meat prices for different purchase channels (e.g. hypermarket), meat categories (e.g. minced beef) and meat types (e.g. organic) were recorded during the mystery shopping survey. Four meat categories were assessed. Based on this audit, **minced beef** is the most expensive, with the EU average price of **€7.24** per kg. The average price for **pork cutlets** is **€7.06** per kg, for pork sausages **€6.39** per kg and for **whole chickens** it is **€4.40** per kg.

Turning to different meat types, the average price of **'regular' meat** (with no further specifications) is **€5.40** per kg. Overall, specific types of meat are **more expensive: organic** meat on average by **66%**, **origin certified meat** by **19%** and **animal welfare certified meat by 20%**. This matches the results of the consumer survey, as many consumers mention price as a reason not to buy ethical meat products more often.

An additional price analysis was conducted on existing data (mainly from Eurostat) to assess whether meat prices in the EU converge. The results show that levels of **meat prices in the EU differ overall**, but are similar within **three country groupings**:

- High price levels: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Sweden and the UK
- Medium price levels: Cyprus, Greece, Malta, Portugal and Spain
- Low price levels: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia

This **divergence in price levels** between EU member states is in line with the comparative consumer price levels and is not related to retail concentration.

E. Conclusions and recommendations

Based on the findings of the study, it can be concluded that consumers are making only limited efforts to inform themselves about aspects of meat and meat products which could help them make more informed purchase choices. Accordingly, consumers' knowledge and understanding of the meat market is low.

The **availability** of specific meat types varies widely across Member States and purchase channels, and the lack of availability of specific meat types in certain cases seems to constrain consumer choice. It can also be noted that some consumers are aware of sustainability issues in the market for meat, but that this does not always affect their behaviour, as **health, price and safety considerations** are more important factors in their

4 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.

meat purchase decision process. In addition, the study findings show that there is a **gap between consumer intention and purchase behaviour**, which can be largely explained by consumer conditions related to prices, availability of specific types and provision of information.

The level of consumer understanding of the **impact of meat consumption on health** is low, and they are often confused by conflicting information about meat and health. Negative consumer perceptions of the safety of meat in the EU could reflect a **lack of awareness regarding safety and negative media coverage during food crises.**

Provision of **information** to European consumers should be the key priority, including encouraging them to use a wider range of information sources as well as to look for different types of information when they purchase meat. In addition, information campaigns and consumer education programmes should be undertaken, also in schools, together with all relevant stakeholders. Their focus should be on:

- Helping consumers to better understand the **impact of meat consumption on health** in order to guide them in making decisions;
- Informing consumers about **meat waste** and the detriment that it generates, both in financial as well as environmental terms, as **meat waste** is shown to be most frequently due to storage and preparation issues that could be avoided;
- Enabling consumers to use more objective criteria in their assessment of the **safety levels of meat** and meat products. Conveying positive messages about the meat market will help build consumer trust.

The survey results confirm the importance of the EU's current provision of **standardised information** on food. This standardisation of information should be designed in a way that integrates the variety of consumers' motivations, differences in the information-seeking behaviour and level of understanding.

The analysis showed that prices of meat diverge across the EU, but the differences are related to differences in comparable consumer prices, rather than to different levels of retail concentration. However, overall, the level of consumers' satisfaction with the **price of meat** is rather low. Further monitoring of **price formation** in the meat supply chain is recommended, including analysis to assess to what extent meat prices reflect the production costs or excessive margins at certain stages of the supply chain.

In terms of market structure, an increasing **concentration of retail in general can be observed.** From this perspective, the level of competition in the national retail markets as well as at the EU-level needs to be monitored, as it might have an impact on the market offer in general terms

I. INTRODUCTION

The study aims at assessing whether the meat market in the EU is functioning well from a consumer's point of view. It takes into account aspects such as choice, quality, prices and the ability to make optimal decisions based on available information. The market's shortcomings and needs for improvements have also been identified. Ultimately, the overall analysis leads to concrete policy recommendations aiming at improving the functioning of the meat market for EU consumers.

The section below details the context and content of the Consumer Market Study on the Functioning of the Meat Market, hereafter referred to as 'the study'. This study was commissioned by the European Commission's Directorate-General for Health and Consumers, hereafter referred to as 'the Commission.'

1 Context

The Commission carries out an annual survey that monitors the functioning of the most important goods and services markets in the EU. The results are presented in the Commission's Consumer Market Scoreboards, which are published every year in autumn

The consumer Scoreboard is based on the market monitoring survey findings. According to the ones of 2010 and 2011, the meat and meat products market's performance is relatively mediocre compared to the other 20 surveyed goods markets. A Market Performance Index (MPI) is calculated for each market based on several indicators: comparability, trust, problems and complaints, switching behaviour and fulfilment of expectations. The MPI for each of the 51 markets was normalised based on the EU average for all 51 markets, which is equal to 100. A score above 100 is above average, while a score below 100 is below average.

With a score of 98.4, the meat and meat products market is placed in the lowest range (18th out of 21).

The most important differences can be found between countries. Especially for the trust component, regarding the proportion of consumers encountering problems and the proportion of complaining consumers, countries show very divergent scores.

Turning to the country scores, the normalised MPI for the meat market is considerably lower in the EU12 countries than in the EU15 countries (94.5 compared with 101.4). In addition, the difference between the EU12 and the EU15 increased between 2010 and 2011. The MPI score of the EU15 increased by 0.4 points and the score of the EU12 countries decreased by 1.0 points. The increase in the EU15 is due to an increase in a number of countries such as Denmark (+4.1), Germany (+3.6) and France (+2.7). The increase in Denmark in 2011 might be the result of fraud cases linked to the best before date of meat products in Denmark in 2009 and 2010.

Countries were ranked by their MPI score, from the best performing to the worst performing in the consumers' view. The five best scoring countries in the meat and meat products market were the UK, Finland, Malta, Ireland and Slovenia. For the latter, the ranking improved by six places due to an increase in the normalised MPI by 1.6 points. Germany made the most significant upward movement in the ranking (from position 16 to 6). The five lowest scoring countries for the meat and meat products market were Bulgaria, Romania, Poland, Lithuania and Slovakia. None of the member states dropped more than 10 positions in the ranking. The difference between the best scoring country (the UK) and the worst scoring country (Bulgaria) was 16.9 points in the normalised MPI, which is way above the average difference of 13.1 for all goods markets. This means that the differences between countries need to be taken into account in the evaluation of overall performance of the market at EU27 level as the overall figure conceals considerable variation across the EU.

Figures 1 and 2 present the MPI by market, first normalised, then weighted by the country population. Figure 3 shows the normalised MPI by country for the meat and meat products market. The three columns on the right present the market rank in 2010, in 2011 and the difference in MPI between the two years. Please note the list of markets changed between 2010 and 2011. As a result, some markets do not have a ranking for 2010.

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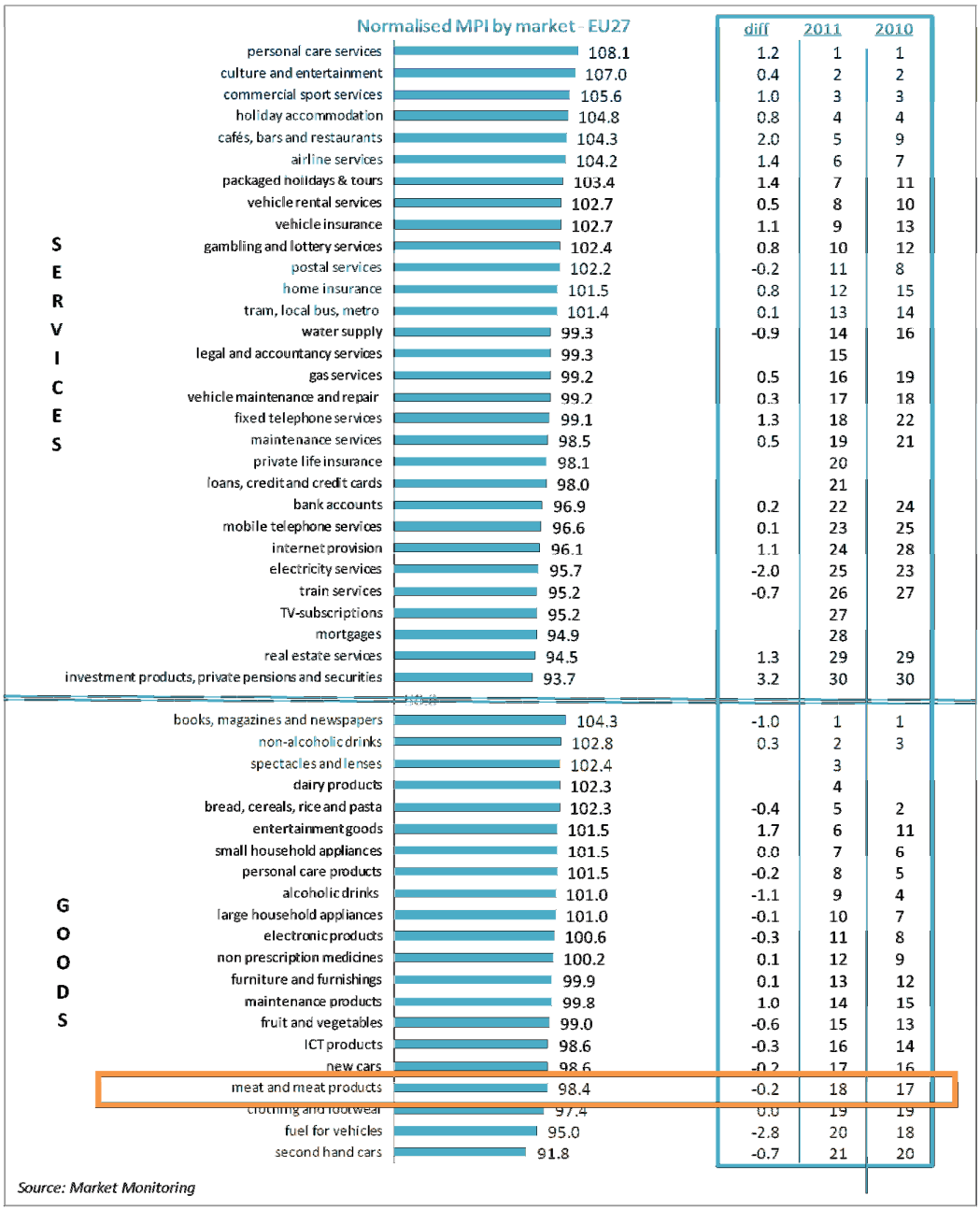
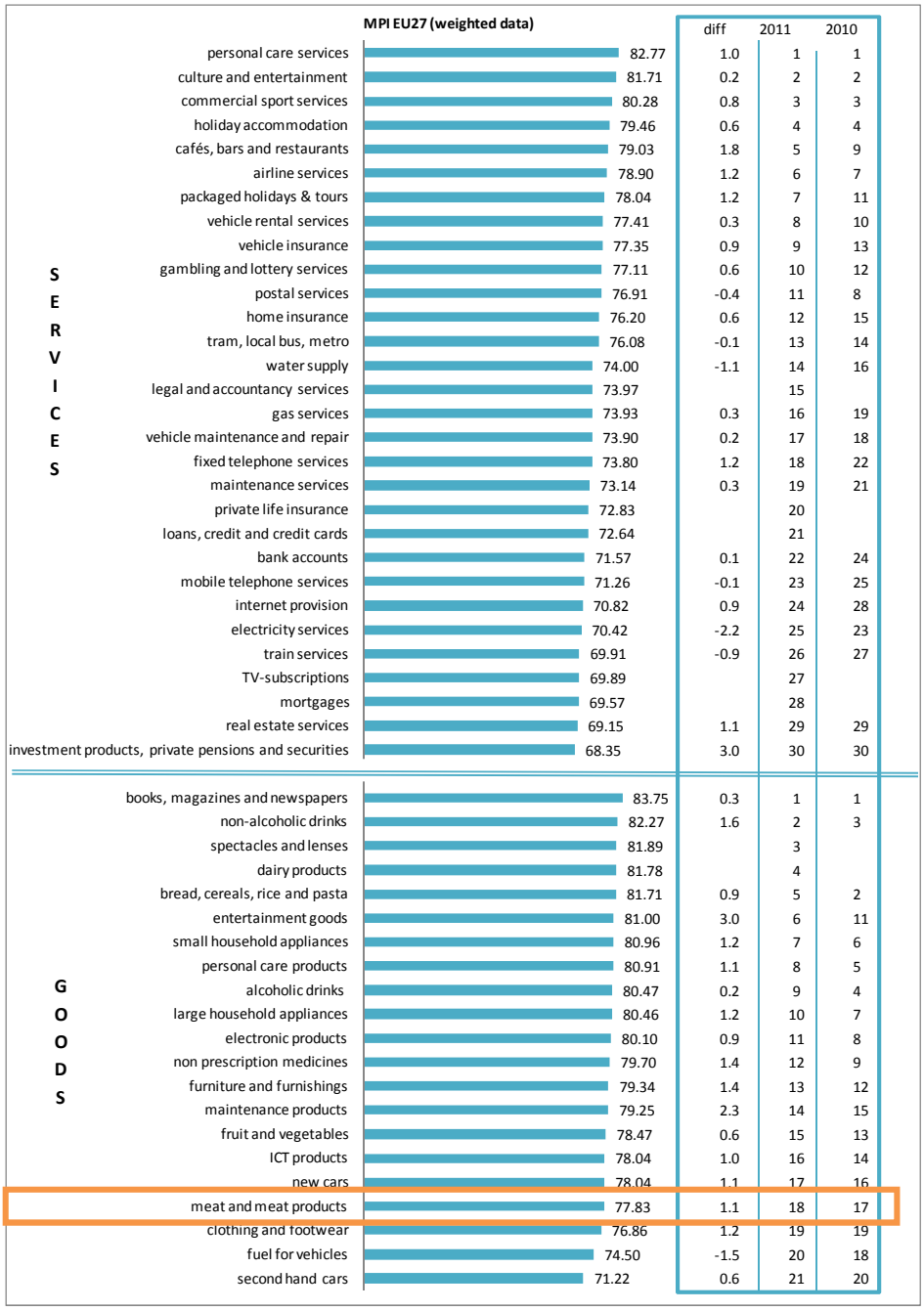
Figure 1. Normalised Market performance indicator by market – EU27[5]



(GfK, 2011)

[5] The Market Performance Index (MPI) is calculated for each market based on several indicators: comparability, trust, problems and complaints, switching behaviour and fulfilment of expectations. The MPI was normalised based on the EU average, which is equal to 100.

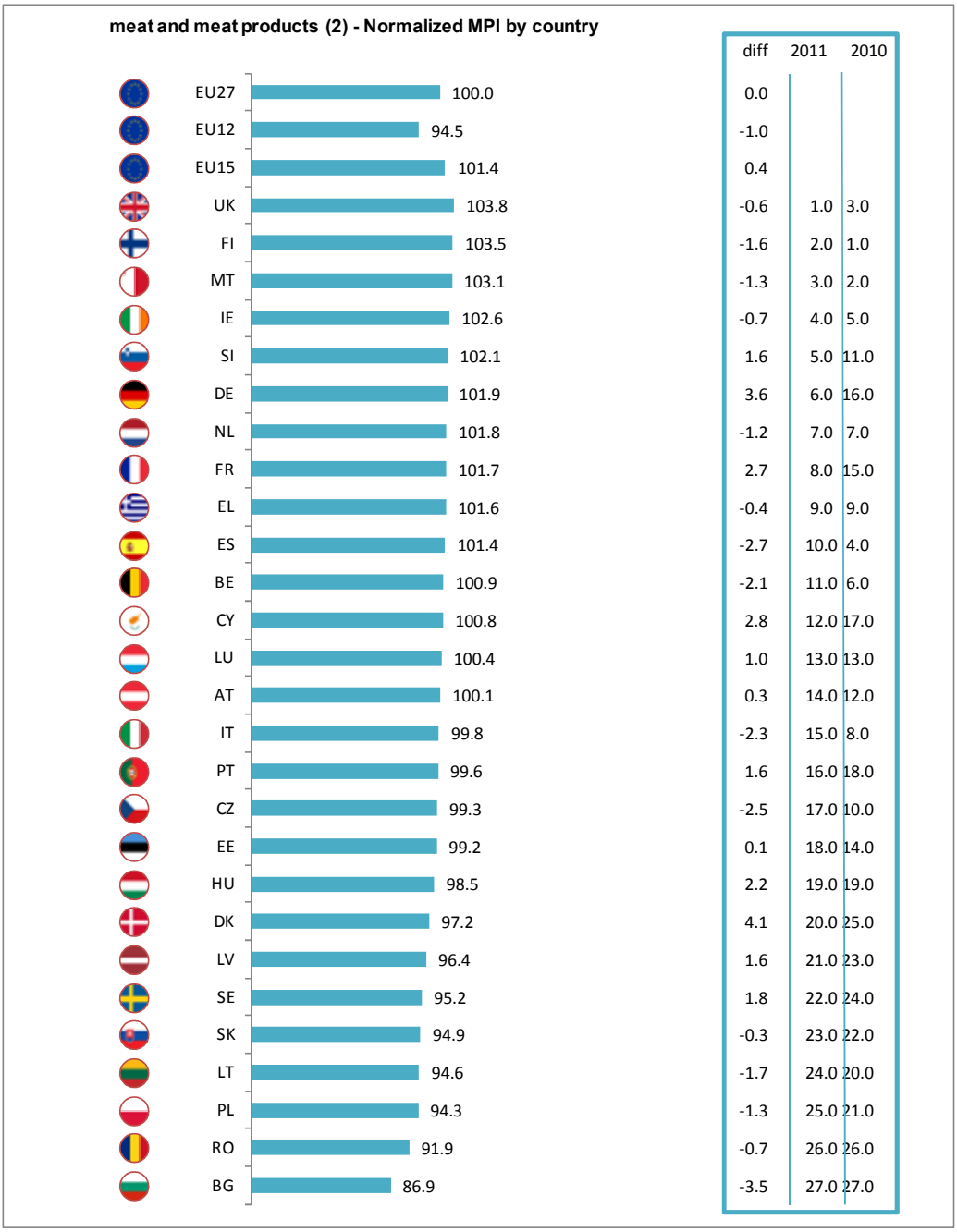
Figure 2. Market performance indicator by market (population weighted data) – EU27[6]



(GfK, 2011)

[6] The Market Performance Index (MPI) is calculated for each market based on several indicators: comparability, trust, problems and complaints, switching behaviour and fulfilment of expectations. Results are weighted according to the population per country. Countries with larger population are a higher weight and countries with a smaller population a lower one.

Figure 3. Normalised Market performance indicator by country - Meat and meat products market[7]



(GfK, 2011)

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[7] The Market Performance Index (MPI) is calculated for each market based on several indicators: comparability, trust, problems and complaints, switching behaviour and fulfilment of expectations. The MPI was normalised based on the EU average, which is equal to 100.

2 The scope of the study

In this study, the meat market was defined as follows: *fresh meat (including frozen meat and meat preparations) and processed meat products covering beef, pork, lamb and poultry, which are available for final customers at the end of the food supply chain (at the retailer).* Catering services were not included in the study.

One of the purposes of the study was to research the following aspects of the meat market: **Is the single market for meat working for consumers in terms of choice, quality and prices? Are consumers able to make optimal decisions or choices about their purchasing and consumption of meat? The particular issues include:** the choice of retailer, the choice and quality of products, prices, problems and complaints, waste, safety, quality, health, sustainability, animal welfare, origin and price in relation to quality.

2.1 Structure of the study

This study was divided into four parts, which were carried out in parallel:

- **Main task 1**: overall study of the functioning of the meat market for the EU consumers based on a theoretical framework built to analyse the functioning of the meat market

  This task includes a desk research and the formulation of conclusions and recommendations based on an analysis of secondary research, as well as the analysis of the primary data collected in the course of the study. Stakeholder interviews at EU and national levels were also conducted as part of this task.

- **Main task 2**: conducting a consumer survey to assess perceptions of the market and understanding the consumer's decision-making process

- **Main task 3**: collecting prices of different meat products to obtain a clear picture of price levels across countries and product types – this task was merged with the Main Task 4

- **Main task 4**: implementing a mystery shopping exercise to gather information on the availability of certain meat types and labelling items across different purchase channels, and to better understand the consumer decision-making process

It is important to mention that primary data was collected for the consumer survey, the mystery shopping survey and the stakeholder interviews. The technical specifications for this primary data collection can be found in the project's technical reports.

13477 consumers across 27 Member States took part in the consumer survey. More detailed technical information and all base sizes per country can be found in the consumer survey's technical report. The main fieldwork of the consumer survey took place between the 2nd and the 23rd of September 2011. The survey was conducted online in 19 countries and using self-completion paper-assisted personal interviewing in 8 countries (Bulgaria, Cyprus, Greece, Italy, Malta, Poland, Portugal and Romania). The main areas covered by

the survey were meat consumption, purchase behaviour and motivations, knowledge of meat types and labelling, waste, information sources, willingness to change purchase behaviour, satisfaction and perception of particular issues. The questionnaire can also be found in the consumer survey's technical report.

The mystery shopping main fieldwork took place from the 15th September to the 3rd October 2011. Mystery shoppers carried out 2025 visits across 27 Member States and completed 10,570 product assessments in total. More detailed technical information about the mystery shopping can be found in the relevant technical report. The mystery shoppers were instructed to visit retailers selling meat and complete a maximum of 12 product observations across 4 meat categories: minced beef, pork sausages, whole chicken and pork cutlets. Within each category, they had to collect information for 3 product types: one regular and two specific. The specific product types included in the survey were (according to their priority): organic, meat with quality certificates referring to tits origin, animal welfare certified, environment/climate certified and religiously slaughtered meat. Assessors were asked to buy one product at the end of each visit. Mystery shoppers checked the availability of each product category and type at the retailer and collected price and labelling information for up to 12 products as defined above, as well as recorded their reason(s) for buying a specific product at the end of the assessment. The mystery shopping questionnaire can also be found in the technical report of the mystery shopping exercise.

Stakeholder consultation at EU level was conducted through telephone interviews from May to July 2011 as part of Main Task 1. The objective of this consultation was to gather opinions from a range of stakeholders on the functioning of the meat market and to better define some of the key concepts ahead of the consumer and national stakeholder surveys. 15 EU-level organisations were included in the EU stakeholder consultation. All stages of the meat supply chain, from the farmer to the retailer, were involved as well as a range of consumer, health and animal welfare organisations. The stakeholder consultation at EU level was followed by a national level consultation in October and November 2011. Three interviews were conducted in each country, with a representative of each of the following: a public authority, a meat processor organisation and a retailer. The objectives of the interviews were to gather opinions on the functioning of national meat markets and ask stakeholders to comment on some of consumer survey results. More detailed technical information about the consultation including the discussion guides can be found in the relevant technical report.

Next to the collection and analyses of primary data, a secondary data analysis was conducted as part of main task 1. The theoretical framework established as part of main task 1 was used both to design the consumer and mystery shopping surveys, and to analyse their findings. The theoretical analysis draws on a wide range of academic sources and research. A full list of references is available in annex IX.

2.2 The expert group

This study was coordinated by GfK EU3C, part of GfK Significant, which specialises in the coordination of multi-country EU projects. The GfK EU3C team worked in close collaboration with the following organisations, which brought their expertise to the project:

- GfK Mystery shopping
- GfK Kynetec
- LEI, part of Wageningen UR
- CapGemini

GfK Mystery shopping

The Mystery shopping division carried out the mystery shopping exercise and the price collection, and provided expertise on related topics throughout the project.

GfK Kynetec

GfK Kynetec provided insights on the producer side of the meat market, and particularly on producer prices, quality certifications and regulations on animal welfare, environmental impacts and safety.

LEI, part of Wageningen UR

LEI's role was twofold: conducting analyses on choice of retailers, choice of products and meat prices across the EU and providing expertise on the meat market and meat-related consumer surveys.

CapGemini

CapGemini provided insight on the meat market, focusing on safety, animal welfare and sustainability.

Regular meetings where each partner provided input on their areas of expertise were organised throughout the project. The expert group played an essential role in the desk research, design of the data collection stage and overall analysis.

3 The report

3.1 Report structure

A theoretical model of the functioning of the meat market was built based on primary and secondary data.

The report is structured as follows:

- Chapter I introduces the study and the report.
- Chapter II explains the consumer model and the rationale behind it, as well as some of its outcomes.
- Chapter III presents the consumer-decision making, drawing on both primary and secondary data.
- Chapter IV details the meat market conditions in the EU.
- The final chapter (V) outlines a number of recommendations based on the findings of the study. As the study focuses on the meat market from a consumer's point of view, the recommendations highlight areas where the meat market is functioning less well for consumers.

Annexes:

The country sheets summarise the key findings of the study for each EU Member State. The Introduction to the country sheets presents the data included in the sheet and provides guidelines on their interpretation.

The report annexes provide additional information on the study, including:

- Annex I : details of the theoretical model
- Annex II : details of the principal component analyses
- Annex III : details of the correlation analyses
- Annex IV: additional data on meat types
- Annex V: additional data on meat prices
- Annex VI: additional data on retailers
- Annexes VII and VIII: additional data on the price analysis
- Annex IX: a full reference list

In addition, country fact sheets and the following technical reports from particular data collection tasks have been prepared:

Consumer survey report

Mystery shopping report

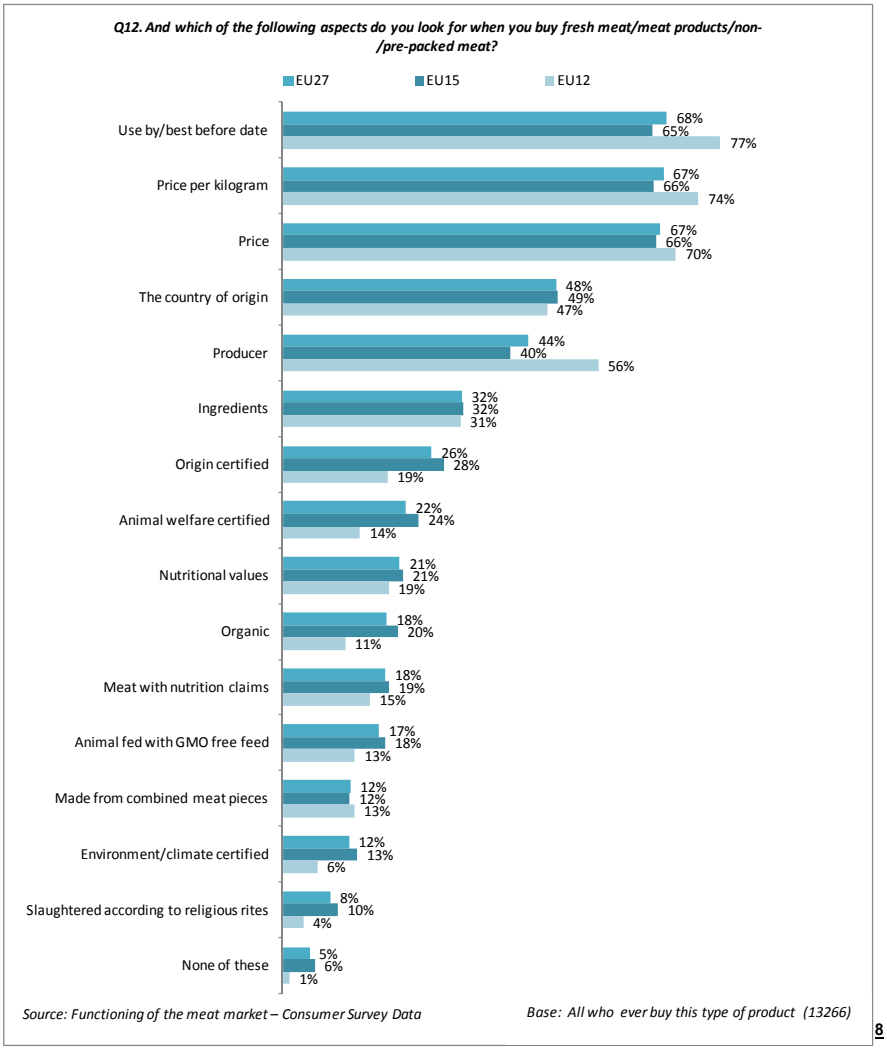
Stakeholder consultation report

3.2 Figures

Where relevant, the data is presented using graphics. As per the example below (Figure 4.), the chart title describes the content of the chart and gives the survey questionnaire's question number. The exact question wording is indicated at the top of the chart or in a footnote. The source, type of data and base size are indicated on each chart.

Some charts present data per country, using the abbreviations for countries and country groupings that can be found below. The colour-coded legend at the top indicates any data splits, in this case between EU27, EU15 and EU12 countries. Most charts are ranked from the highest to the lowest percentage or mean and the order of countries may vary from one chart to another.

Figure 4. Q12. Aspects looked at when buying meat



[8]

[8] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?

Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?

Q12C. And when you buy non-packaged meat products?

3.3 Glossary

This report uses the inter-institutional style guide for EU member states' abbreviations, as follows:

Country	Abbreviation
Austria	AT
Belgium	BE
Bulgaria	BG
Cyprus	CY
Czech Republic	CZ
Denmark	DK
Estonia	EE
Finland	FI
France	FR
Germany	DE
Greece	EL
Hungary	HU
Ireland	IE
Italy	IT
Latvia	LV
Lithuania	LT
Luxembourg	LU
Malta	MT
Netherlands	NL
Poland	PL
Portugal	PT
Romania	RO
Slovakia	SK
Slovenia	SI
Spain	ES
Sweden	SE
United Kingdom	UK

When commenting on EU-wide data, the term 'EU27' is used. 'EU15' refers to the 15 countries members of the EU prior to 2004. 'EU12' refers to the 12 countries that joined the EU most recently, in 2004 and 2007.

'Eurozone' refers to the 17 countries who have adopted the Euro as their legal currency.

Please note that we used the following conventions when mentioning meat:

- Meat *category* refers to species, for instance chicken, beef or veal.
- Meat *type* refers to products with different production methods, for instance regular, organic or animal welfare certified meat.

Consumers are sometimes split in groups based on their consumption frequency, as follows:

- High frequency: household consumes meat every day
- Medium frequency: household consumes meat 2-3 times a week or 4-6 times a week
- Low frequency: household consumes meat once a week or less often

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Q12D. And when you buy pre-packaged meat products?

The following definitions were used for the meat types included in the survey.

PRODUCT TYPE IN QUESTIONNAIRE	DEFINITION
Regular	Standard product with no specified type or range
Organic	Meat with an organic certification, e.g. EU eco-label, Country-specific examples were provided in the questionnaire, such as: Organic Food Standard, Bioland, Ecocert, EKO
Origin certified	Meat with an origin certifications e.g. Protected Designation of Origin Country-specific examples were provided in the questionnaire, such as: Certified Irish Aberdeen Angus Beef, Liptovský salám, Agneau du Périgord
Meat for which the country of origin is specified	Meat sold with an indication of the country of origin, but without further origin certifications
Animal welfare certified	Animal welfare certified (production method giving specific importance to animal well-being, for example free-range chicken)
Environment/climate certified	Environment/climate certified (production method with a limited impact on the environment, for example with a low carbon footprint)
Religious slaughter (e.g. halal, kosher)	Slaughtered according to religious rites (for example Halal or Kosher)

Please note that ‘origin certified’ meat refers to meat with an origin-related quality certification which is distinct from a country of origin label or certification. Consumers were asked about ‘origin certified meat’ and were provided with national examples to ensure they interpreted the wording the intended way.

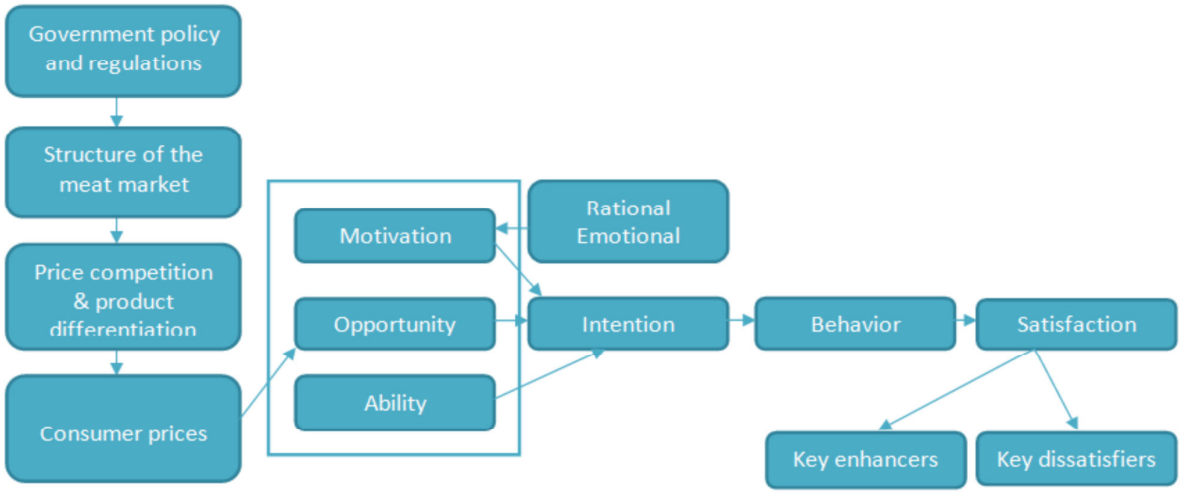
II. MODEL OF THE FUNCTIONING OF THE MEAT MARKET

4 The model as the framework for analysis

This study 's starting point is a theoretical model which shows the different drivers that are likely to impact the consumers' welfare in the meat market. The two parts of the model: the structural elements (market conditions) and the consumer decision making process are put in place to assess if consumers in the EU find their way in the European Market of Meat as it exists today. The model was presented in a flowchart (Figure 5.) describing all expected interactions, and its elements are listed below. The primary data collection and analysis sought to substantiate the theoretical model.

The development of the model as well as relevant technical details are included in annexes I and II.

Figure 5. Theoretical model of the functioning of the meat market for consumers



With this model, it is possible to establish a possible relationship to policy options in case of lack of motivation, opportunity and ability. Rothschild (1999) gives strategic options in case consumers lack motivation, opportunity or ability to behave (Figure 6.). If the target audience is prone to behave as a result of adequate motivation, ability and opportunity, educational approaches will do in realising the behaviour change. If the condition of ability is satisfied and there is a basic motivation, but the opportunity is the limiting factor, social marketing approaches are particularly appropriate in further aligning the offering to the individual's value perception. If, however, motivation is lacking whereas the conditions of ability and opportunity are satisfied there is not much that education and marketing can contribute (as mobilising consumer demand for sustainable development both rely on free choice) and law may be the most appropriate mechanism. In all other situations a mix of approaches will be required, with education particularly suited to overcome a lack of ability and law particularly appropriate to overcome a lack of motivation. Marketing plays important roles in eliciting high motivation by offering more attractive opportunities at lower perceived costs and with greater perceived benefit.

Figure 6. Strategic options to impact consumer behaviour

Motivation		Yes		No	
Opportunity		Yes	No	Yes	No
Ability	Yes	Prone to behave *Education*	Unable to behave *Marketing and assortment*	Resistant to behave *Law*	Resistant to behave *Marketing. Law*
	No	Unable to behave *Education. Marketing*	Unable to behave *Marketing. Education and assortment*	Resistant to behave *Marketing. Law. Education*	Resistant to behave *Marketing. Law. Education*

(Rothschild, 1999)

4.1 Elements of the analytical framework

The content of the two main parts of the analytical framework and their relations can be defined as follows.

Structural elements of the market

- Government policy and regulations shape the industry structure of the meat market, for example through regulations and production methods.
- The market structure depends on supply chain determinants like technology, international trade and government policy influencing structure and on demand-side determinants like consumer income and preferences as well as government policies influencing consumer demand. (Scherer & Ross, 1990). We will focus on two aspects of the market structure that are key to consumers: the general availability of meat and the choice of purchase channels.
- Product differentiation is linked to the choice of different types of products and their differentiation as marketing strategy.
- Industrial organisation theory explains consumer prices on the basis of market structure characteristics and the nature of price competition (Scherer & Ross, 1990; Sutton, 1991).

Consumer decision making

The consumer decision making model is based on several key concepts: motivation, ability, opportunity, intention, behaviour and satisfaction.

Motivation is linked to a person's willingness to engage in behaviour. Generally individuals are motivated to engage in behaviour when it is in their interest. Motivation can be influenced by rational (e.g. preference for low prices) or emotional aspects (e.g. preference for animal welfare certified products). It includes personal beliefs and knowledge based on experience, education, etc.

Ability refers to a person's skills or proficiency (e.g. self-efficacy) at solving problems including breaking a well formed or addictive habit or countering the arguments of peers. This also includes practical

aspects of the purchase, e.g. financial means to buy the product, and the ability to understand and process information.

Opportunity: the consumer's environment, including the retailer, labelling and the availability and accessibility of products.

Intention refers to decision-making just before the purchase and **behaviour** stands for the purchase action itself.

Satisfaction includes post-purchase satisfaction linked to preparation and consumption. The composition of satisfaction can be analysed through key enhancers and dissatisfiers.

The consumer decision making model is a cycle as satisfaction usually has an impact on motivation through knowledge and beliefs based on experience.

4.2 Key concepts of the analytical framework

Next to the components described above, the following topics are covered in the data collection and analysis:

- **Origin:** refers to the geographical source of meat. This includes issues such as EU and non-EU origin, national and regional productions, places of birth, rearing and slaughter, the farmer or producer and any protected geographical status or certifications. However, EU-level stakeholders mostly understood this concept as the country of origin, and in some cases to an EU origin (in contrast with non-EU products).

- **Health:** this concept covers the nutritional value of meat (energy, fat, etc.), additives such as salt or preservatives and the impact of meat consumption on health (in terms of quantities and types of meat consumed)

- **Safety:** refers to a range of safety risks, such as residues, pollutants, bacterial contamination, animal diseases, cloning, genetically modified organisms (GMOs), nanotechnologies and the handling of meat after purchase by the consumer. EU-level stakeholders see the latter element as a very important but little known aspect of safety. GMOs and nanotechnologies are sometimes assessed more in terms of ethics or sustainability.

- **Sustainability:** definitions differ, but sustainable development usually includes ecological, economic, and social dimensions. From this perspective, production methods that have a limited environmental impact while being socially justifiable and economically viable are preferable (Langhelle, 2000; World Commission on Environment and Development, 1987). The following aspects of the meat market are seen as linked to sustainability: organic production, packaging, carbon footprint, meat consumption levels, impact on soil, water and air and the use of new technologies.

- **Animal welfare:** the 'Five Freedoms' adopted by the Farm Animal Welfare Council summarise the different aspects of this concept. The 'Five Freedoms' are freedom from hunger and thirst, from

discomfort, from pain, injury and disease, from fear and distress and the freedom to express normal behaviour.

- **Quality:** according to the desk research and the stakeholder interviews, this very broad concept can include most of the topics mentioned above. Among others, the following topics are linked to quality: appearance, freshness, taste, brand, quality certifications, ingredients, durability, storage and conditions of use, animal feed, production processes (e.g. mechanical separation or freezing), additives and new technologies.

These key concepts are discussed throughout the analysis in those parts of the model where they emerge. Other topics are also addressed, but to a lesser extent:

- **Production methods:** refers to all aspects of the meat chain from breeding to the final product. Producers who abide by specific production standards may display certifications such as organic or animal welfare.

- **Experience attributes:** attributes that can only be assessed after the purchase and/or consumption, for instance the taste or ease of preparation.

- **Complaints:** complaints made to the retailer or producer about a product following an issue

- **Food waste:** for the purpose of this survey, waste was defined as edible parts of meat or meat products that were disposed of by consumers.

- **Labelling:** all pieces of information available on food labels or displayed next to the meat (e.g. in a butcher's shop)

- **Media:** important stakeholders of the meat market as media coverage influences consumer perceptions of the market, particularly during so-called 'food scares.'

- **Intrinsic (e.g. sensorial) and extrinsic cues (e.g. in-store information):** attributes consumers evaluate while buying, preparing and eating meat.

- **Trust:** consumer trust in the functioning of the meat market and in the information provided by various market stakeholders

- **Information and (mis)conceptions:** degree of knowledge of meat-related issues and consumer perceptions of the meat market, whether justified or not

- **Ethics:** ethical and moral aspects of the meat market, linked for instance to slaughter without stunning or cloning

5 Links between the elements of the consumer decision making model

As another step in the analysis of the consumer model, a thorough look was given at the **linkages** within and especially between the blocks via correlation analysis of the consumer model. The objective of using this technique is in other words to find out how, and if, the blocks relate to each other (e.g. to see what impact consumers' ability has on their purchasing of particular meat types).

The analysis of the consumer survey data showed weak correlations between the blocks. It can therefore be said that **the theoretical model does not fit to the consumer decision making at EU level** perfectly. This becomes clear when analysing the between block correlation as highly explanatory relationships cannot be detected between blocks. Moreover the correlation exercise indicates that consumers in the European meat market do not carefully consider all the steps in the purchase process and that rational and emotional elements are mixed up in such way that the theoretical assumptions about the way the consumer feels, thinks and acts in the meat market are not as distinctive in practice. There seem to be a low involvement of most EU consumers in the meat purchasing process.

The strongest relationships between the predefined concepts can be found between motivation and intentions and opportunity blocks, making it apparent that not all blocks can be distinguished in practice in consumers' minds or actions. The consumer decision making process in practice therefore is much simpler than expected theoretically. The opportunity components show the following strong relationships with other blocks especially with the motivation block:

- Consumers who indicate looking at different kinds of media available to them when purchasing meat are also the ones who look for meat with nutritional value and specialized meat like organic meat.
- Consumers who look almost exclusively at labels on the other hand are more price-driven when choosing meat. This also coincides with the finding that this group is probably the least informed group, looking only at the price and the best before date in when making the decision which meat to buy.
- Consumers who talk to staff at the retailers about meat and meat products are more interested in the place of production. These could also be consumers that rely on the opinion of a butcher to reassure them that the meat they are buying was produced locally, and in this sense reassure them about the meat's freshness. This could be linked to the fact that opportunity, as an external driver, has a wider impact on motivation.
- None of the components of the ability and satisfaction blocks show strong correlations with components of other blocks. As for the remaining blocks, it could be found that:
- Consumers that look for information on specific meat types are likely to also be willing to buy these types of meat more often.

Within each block various analyses were carried out reaching from simple descriptive analysis and cross-tabulations to multivariate analysis techniques, such as maximum difference scaling and key discriminant/enhancer analysis. Links between individual items of the blocks were also analysed and the strongest ones identified are presented in the relevant chapters of the report.

III. CONSUMER DECISION-MAKING

The five key elements of the consumer decision-making model defined above will be addressed in turn: motivation, opportunity, ability, intention and behaviour, and satisfaction. The analysis draws on both primary and secondary data.

6 Motivation

CHAPTER SUMMARY

Definition

- **Motivation** is linked to a person's willingness to engage in behaviour. Motivation can be influenced by rational (e.g. preference for low prices) or emotional aspects (e.g. preference for animal welfare certified products). It also includes personal beliefs and knowledge based on experience.
- **Intrinsic** cues relate to physical properties of the product (e.g. colour, appearance). **Extrinsic** cues relate to the product but are not physically part of it (e.g. quality, origin) and need to be signalled to the consumer, for instance with labelling. Motivational attributes can be categorised as extrinsic or intrinsic, and as point of sale or experience attributes.

Main findings

- Studies show that **consumer perceptions often differ from more objective/scientific assessments**. For instance, the cues consumers use to assess the quality of meat are not always the ones that scientists indicate as relevant. Also, according to existing research, extrinsic cues (e.g. labelling) are increasingly important for consumers.
- Results of the consumer opinion survey show that the **most important factors of meat purchases** for consumers are **intrinsic cues. 17 motivation aspects** were surveyed and attributed individual importance scores adding up to a total of 100%. The average share of importance for one aspect is thus 5.9%. The most important aspect for consumers is freshness with a share of 10.2%, then taste with 8.7%, and hygienic conditions with 8.4%, followed by **price** (reasonable price with 8.1% and affordable price with a share of 7.9%) and **origin** (produced in my country with 7.9%).
- Aspects relating to safety (traceability with 6.5% and best before date with a share of 5.6%) and specific meat types (e.g. organic with 3.3%, animal welfare certified with 4.8% and environmental standards with 4.8%) are relatively less important.
- These results are in general confirmed by mystery shoppers, who indicated their motivation for choosing particular meat products to buy. All elements related to labelling (organic, animal welfare certified, amount of information provided) were mentioned most often, followed by the

appearance of the meat, origin, price and quality.

- **The level of importance of items differs between countries**. For example, taste is a top priority for Belgians (11.4% of share of importance) and only the 9th most important aspect for Italians (with 5.4%). The highest scoring environmental and ethically-oriented item is the absence of genetically modified feed. This item is driven by high scores in a few countries, such as Cyprus, Greece, Italy and Austria.
- Several differences between socio-demographic groups of consumers were identified. Among others, **older respondents (55-75 years old) attach more importance than other age groups to whether meat is produced in their country**.
- **Consumer priorities are consistent with the information aspects they seek while buying meat**. In particular, while a reasonable **price** has an above average share of importance, the price per kilogram and price in general are the second and third key information aspects consumers look for (67% of consumers search for each of them). Also **consumer awareness of specific meat types often goes in line with their priorities and the information they use**. For example, the origin of meat (meat produced in the consumer's country or with a traceable origin) is one of the top priorities for EU consumers. At the same time, meat for which the country of origin is specified and origin certified meat (with an origin-related quality certificate) are the types consumers know best (respectively 76% and 55% of consumers are aware of them). Consistently, 48% of consumers look for information regarding the country of origin, 44% for the producer and 26% for an origin certificate (respectively 4th, 5th and 7th among 15 information aspects surveyed).
- Among the 15 information aspects EU consumers look for when purchasing meat, the **use by/best before date** is used by slightly more consumers than the price and the price per kilogram (68% compared to 67% and 67%). Apart from the country of origin, the producer and origin certifications, the aspects looked for by more than 20% of EU consumers are the ingredients (32%), animal welfare certifications (22%) and nutritional values (21%).
- There are differences between countries. **EU12 consumers are more likely to look at the best before/use by date** (77% in comparison to 65% of EU15 consumers), **the price per kilogram** (74% vs 66% in EU15), **the price** (70% vs 66%) and **producer** information (56% vs 40%). **EU15 consumers are more likely to look at origin certifications** (28% vs 19% in EU12), **animal welfare certifications** (24% vs 14%), **organic** information (20% vs 11%), **nutrition claims** (19% vs 15%), **GMO free feed** information (18% vs 13%), **environment or climate** certifications (13% vs 6%) and **religious slaughter** information (10% vs 4% in EU12).
- **Information aspects that consumers look for match to some extent the availability of relevant information in a consumer's country** (which was measured by mystery shopping). For example, consumers in Austria, Luxembourg and Denmark (all 38%, compared with 18% overall) are more likely to look for organic certifications, and these three countries have relatively high proportions of products with organic labelling: 24% in Denmark, 22% in Austria and 20% in Luxembourg. Greek consumers (78%) are more likely to look for

country of origin information, while Dutch consumers (24%) are less likely to do so. This matches the availability of country of origin labelling in these two countries: it appears on 98% of products in Greece and 47% of products in the Netherlands.

- Among other differences between socio-demographic groups, consumers **aged 55-75 are more likely than others to look for information about the country of origin** (52% in comparison to 45% of 18-34 year-old respondents), in line with the fact that they care more if meat was produced in their country. The **younger age group (18-34), however, is more interested in information regarding animal welfare certifications** (25% look for this aspect in comparison to 22% on average for all age groups), in **religious slaughter information** (13% vs 8%) or **organic certification** (22% vs 18%).
- In general, consumers' information-seeking behaviour is driven by four aspects, namely interest in specific meat types, nutrition, origin and price.
- EU consumers look for 5 information aspects on average. Consumers who use a higher number of information sources when purchasing meat also claim to look at more aspects.

Freshness, taste and hygienic display play a crucial role in consumer motivation, although there is a discrepancy between consumer perceptions and a more objective assessment of meat quality indicators. At EU level interest in information on specific meat types (such as organic or animal welfare certified meat) is still limited but differences between countries can be observed.

Research questions discussed

What impact do meat price levels have on consumer understanding and attitudes as well as on purchase decisions? What are consumers' requirements and expectations regarding the safety of meat? Do consumers trust the safety of meat on the market? How is their trust reflected in the purchase behaviour? Do consumers trust the main actors on the meat market? What do consumers understand about the safety/quality/health/sustainability/animal welfare/origin of meat and how does this impact their purchase behaviour?

In this chapter, we first define consumer motivation attributes, then present an overview of the key attributes identified in the survey: quality, origin, sustainability, animal welfare, health and safety. The last two sections focus on primary data, with a detailed analysis of consumer priorities when purchasing meat and the informational aspects they look at the most.

6.1 Classifying motivation attributes

There are several ways of classifying motivation attributes when it comes to meat purchases. The theoretical framework approaches motivation by separating **rational** (e.g. preference for low prices) **and emotional** (e.g. preference for animal welfare certified products) aspects. However, the desk research revealed other types of classification which may prove to be more suitable for the meat market.

Firstly, meat attributes can be classified into attributes visible at the point of sale, experience attributes at the point of consumption and background cues. Troy (2010) presents the following classification into meat quality cues and attributes:

- Point of sale: meat colour, packaged meat colour, visible drip, visible fat
- Point of consumption: tenderness, flavour, juiciness, succulence
- Major background cues: safety, nutrition, sustainability, ethics

Secondly, motivation attributes can be separated into intrinsic and extrinsic cues (Olson & Jacoby, 1972). Intrinsic cues relate to physical aspects of the product (e.g. colour, shape, appearance, etc.) whereas extrinsic cues relate to the product but are not physically part of it (brand, quality stamp, origin, store, packaging, production information, etc.) (Bernues, 2003). As extrinsic cues are not immediately apparent on the product, consumers entirely depend on information and labelling provided to them. Consequently, trust plays a crucial role for these aspects.

6.2 Overview of motivation attributes based on existing research

We will present attributes that have been identified as central for the study, namely quality, origin, sustainability, animal welfare, health and safety. The concept of trust will be closely linked to safety in which it seems to play a central role.

The increasing importance of extrinsic cues in consumers' decision making was identified by Grunert (2006) as one of trends in consumer attitudes: the growing concern of individuals towards product/process attributes difficult to detect, such as nutritional characteristics, food safety, environmental impact has increased the number of extrinsic attributes. This increased interest at the consumer level is linked to two developments: increasing awareness of the link between food and health, and consumers' interest in stories related to the origin and production of their food (Verbeke, 2010).

6.2.1 Quality

Defining quality as a motivation attribute is difficult as it tends to cover all other areas under consideration. Moreover, consumer perceptions of quality are not always aligned with more objective assessments of meat quality as defined by other market actors. For example, consumers expect beef and lamb to be bright red, and chicken and pork to be evenly pink, even though colour is not necessarily correlated with quality. (Troy, 2010).

Intrinsic cues play a key role in consumers' decision-making process and in their definition of quality, which is confirmed by consumer priorities when purchasing meat, as indicated in the consumer survey carried out for this study.

Quality in the context of this analysis is therefore defined as a set of intrinsic cues perceivable by consumers when purchasing or consuming meat. Still, quality labels also have an impact on consumer perceptions. For instance, consumers are likely to think meat with quality labels or branding is safer because it is more controlled. They also understand quality labels as an indication of consistent quality (Wezemael et al., 2010).

6.2.2 Origin

The origin of meat can be linked to a number of aspects, such as the country of origin, the place where the animal was farmed, the place where the animal was born, the place where the animal was slaughtered or the place of last substantial change. In the context of the study, the country of origin of meat or meat products is understood as a general term. The study does not distinguish the options for the modalities of expressing the country of origin[9].

Information about a product's country of origin influences the consumer decision-making process (Vukasovic, 2009). Origin is also related to safety. Due to a tendency to ethnocentrism, consumers perceive meat from their own country as safer than foreign meat. (Wezemael, 2010). Disease outbreaks also lead consumers to mistrust foreign meat and trust more domestic meat (Vukasovic, 2009).

However, the levels of importance attached to the country of origin seem to be country-specific (Becker (1998), which is supported by a wide variation of the importance of 'Produced in my country' between Member States in our consumer survey.

Relatively few international surveys have been carried out on origin labelling. We focus on a survey carried out in the UK in 2010 (FSA, 2010).

First, 54% of consumers understood the origin of meat as the place where the animal was farmed, while 12% understood it as the place of last substantial change.

Second, the survey shows that **origin labelling is particularly important for fresh meat**. Fresh meat was the most commonly mentioned food that origin labelling should be used for (69% of respondents).

6.2.3 Sustainability

[9] These modalities have been distinguished in the regulation establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products (REGULATION (EC) No 1760/2000). However the recent regulation on food information to consumers does not specify the details of the country of origin labelling for other meat, i.e. swine meat, sheep and goat meat and poultry meat.

First, production processes that improve the quality of the environment are increasingly valued (OECD, 2008).

Second, many consumers have unclear or misleading perceptions of sustainable food products. For instance, consumers are not consistent in their interpretation of what is organic (Bonti-Ankomah, 2006). They also hold misconceptions, such as the belief that organic foods are healthier, more nutritious and taste better. These beliefs are widespread but scientifically unproven (Brennan, 2003).

There is also some evidence that consumers link sustainability **to safety and environmental concerns.** Meat is considered more 'natural' and safer when it is less processed, does not contain added ingredients and was produced with animal welfare-friendly methods. (Wezemael, 2010) Perceived health risks also have a positive impact on the demand for sustainable products. Indeed, consumers link the limited use of chemicals in production with lower health risks (OECD, 2008). However, this is not confirmed scientifically. For instance, a study reported that *Campylobacter* bacteria were as likely to be found on organic chickens than on regular chickens (Brennan, 2003). Still, consumers care more about personal health than the environment when choosing organic food over conventional food (OECD, 2008).

Furthermore, consumers **express a need for further information about organic foods, as well as clearer labelling** (Brennan, 2003). A Eurobarometer survey showed that the majority (60%) of EU consumers would like information about the environmental impact of a product to be displayed on the product itself. (Flash Eurobarometer 256, 2009).

There is evidence of the positive impact of organic labeling on consumer perceptions. In a 2004 study, meat with an organic label was perceived to have a higher eating quality than meat with a conventional label, regardless of the actual meat type eaten (Scholderer et al., 2004). However, labelling on its own may not be sufficient to convince consumers of the product benefits due to uncertainties about environmentally-friendly products and a lack of trust in certifications (OECD, 2008).

There is also some evidence that knowledge of production methods has a positive effect on the consumption of environmentally-friendly products (OECD, 2008).

6.2.4 Animal welfare

A recent Eurobarometer survey shows that less than half of consumers claim they take animal welfare into account when buying meat. Wide differences can be observed across Member States, with lower levels of interest for animal welfare in most EU12 Member States The identification of products coming from animal welfare friendly production systems using the label also seems difficult, particularly in the new Member States (Eurobarometer 229, 2005).

Besides, as they become more aware of animal sentience, consumers engage in psychological and behavioural strategies to avoid connecting animal-based products with the animal of origin. (Harper & Henson, 2001) As a result, knowledge about animal welfare is not activated during purchases and is not enough to change behaviour. Effective communication about animal welfare should take into account consumers' reluctance to think of the animal origin of meat (Hoogland, 2005).

Existing research shows that consumers consider high animal welfare standards as safety, health and quality cues (Verbeke, 2010). This is confirmed by the results of a Eurobarometer survey (Special Eurobarometer 270, 2007) that found that consumers' main reasons for buying animal-friendly food products are health and quality.

Consumers consider **labelling the best way to identify food products' level of animal welfare, followed by logos** (Special Eurobarometer 270, 2007).

6.2.5 Health

Research shows that nutrition and health now play a more important role in consumers' decision-making than safety (Verbeke, 2010). The debate on food and health also encompasses nutrition and nutrition labelling.

Generally consumers have mixed views about the link between human health and meat. Some consumers think that meat is an important component of a healthy diet and has a high nutritional value (Verbeke, 2010). In parallel, some consumers have a negative image of meat in terms of fat content and link with health issues such as cancer, heart disease and obesity. (Troy, 2010). The EU-level stakeholder interviews reflect this divide: representatives of the production chain think the media coverage of meat in terms of human health is too negative while consumer and health organizations think consumers should be encouraged to eat less meat.

In terms of labelling, increased transparency about the nutritional content of food products has already led producers to reformulate some of their products, and may lead to further changes in consumer demand (Verbeke, 2010). Besides, regulation No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers changed a number of food labelling requirements, with a particular focus on nutrition. A nutrition declaration will be compulsory on most food packages from 2016, and will include the following elements: energy value and the amounts of fat, saturates, carbohydrate, sugars, protein and salt.

A survey carried out by the French Ministry of Agriculture in France (2007) indicated that the proportion of consumers who indicate they often read nutritional labels is on the rise, although a quarter still never reads such information. The same study identified the nutrient list and the food category list as the two most important pieces of information, followed by daily recommended intake information and indication of the frequency of consumption.

6.2.6 Safety

Food contaminations and disease outbreaks have affected consumer trust and have increased consumer interest in food production processes (Verbeke, 2010). However, when consumers are asked to specifically cite any problems or risks associated with food, many things spontaneously come to mind but without any sense of unanimity: food poisoning comes to mind most often (16%), followed by chemicals (14%) and obesity (13%). For 7% of respondents food does not present any risks or problems at all (Special Eurobarometer 354, 2010).

Interestingly, however, when consumers are prompted about the possible risks associated with food (through the presentation of a closed list of potential issues), they identify a wider range of food risks (Special Eurobarometer 238, 2006). This highlights the fact that consumers may not think spontaneously of food safety issues in their everyday life, but they do care about these issues when they are reminded of them. This could help explain some of the consumer reactions observed in case of food scares.

Verbeke (2010) identified a range of attributes used as safety cues by consumers: origin, quality labels or branding, appearance and the type of meat (e.g.fresh or frozen). Consumers considered expired use by dates, a foreign origin, a high level of processing and very cheap prices as signals that meat was unsafe.

As indicated earlier, meat originating from the consumer' own country is considered to be safer and of a better quality by many consumers. The place of purchase is also used as a safety cue, although in different ways.

Some consumers trust their personal contact with a butcher, while others put their trust in supermarkets' high sales and labels (Wezemael et al., 2010).

Trust plays a central role in consumers' perceptions of safety in many respects. Consumers trust that regulations and controls are adequate and carried out by competent authorities. They also tend to trust actors in the downstream part of the chain (e.g. retailers) more than actors upstream (e.g. producers) (Verbeke et al., 2010). Besides, there is some evidence that consumers are not interested in knowing more about traceability themselves, as long as they are reassured that they can trust the system (Verbeke and Ward, 2006). In parallel, as mentioned earlier, consumer decisions are increasingly influenced by health considerations instead of safety considerations (Verbeke, 2010).

Research conducted by Wezemael et al. (2010) on beef safety also shows that consumers have a low awareness of their own responsibility in meat safety. This was also highlighted as an issue by the EU-level stakeholders: few consumers realise that post-purchase handling plays a role in safety.

Figure 7. summarises the types of information, the potential information providers and channels based on consumer expectations according to Wezemael et al. (2010). Consumers expect information on the meat chain (traceability and breeding practices), freshness (expiry and slaughter dates) and additives. All meat market stakeholders are expected to provide such information: public authorities, producers and processers, retailers and third party organisations such as consumer organisations. Consumers' preferred information channels are labels and mass media, such as the Internet or TV. School is also seen as a channel and information provider.

Figure 7. - Information about beef safety: consumer's expectations

Information about beef safety: consumers' expectations		
What? Expected Information	Who? Information providers	How? Information channels
Expiry date	Government	Label
Slaughter date	Government institutions	Internet
Additives	Independent institutions	TV debate
Breeding practices	Farmer	TV documentary
Origin	Breeder	Folder
Where raised	Abattoir	Magazine
Animal feed	Processing industry	School
Animal welfare	Supermarket	
Traceability	Butcher	
	Consumer organisations	
	Media	
	School	
	Medical science	

(Wezemael et al., 2010)

6.3 Role of information regarding product attributes

It has been argued that **consumers want increasingly more information on how their food is produced, so that they can make informed choices** (Ahola, 2008). On the other hand, consumers may also be subject to **information overload** (Wezemael, 2010, Verbeke, 2010).

The importance of information however is indisputable. In Anderson et al. (2005) a high percentage of consumers indicated that they would prefer certified products (environment or organic) after hearing a clear definition of the production methods and of the environmental and health benefits. **This result provides a clear feedback to policy makers, showing that certification strategies should be paired with other complementary marketing strategies based on credible and understandable information to consumers**.

Labelling is likely to have the desired effects if consumers are a) adequately **informed on the meaning** of the label; b) the information provided is readily **understandable**; and c) consumers (or relevant subgroups) are in principle **interested** in having this information available for their purchasing decisions. (Special Eurobarometer 270, 2007).

Besides the content and format of labelling, **the credibility of the source of information** is one of the main factors determining the perception of extrinsic attributes (Grunert, 2001).

6.4 Consumer priorities in the meat purchase decision-making process

6.4.1 Overall results

As explained earlier, motivation represents a consumer's willingness to buy meat. This motivation can be inspired by rational aspects, for example a preference for low prices, or by emotional features, for example a preference for animal welfare certified products.

The consumer survey conducted in September 2011 in the 27 EU Member States includes two questions directly related to motivation: question 15[10], which covers the aspects of the purchasing process that are important for the consumer, and question 12[11], which looks into the aspects respondents look at when buying meat.

Question 15 of the consumer survey[12] focuses on the importance of a number of features of meat to the consumer, i.e. the meat market characteristics that motivate consumers to buy meat.

Respondents were asked for their priorities when buying meat using a Maximum Difference Scaling approach. The following 17 aspects of the meat market were tested:

The price is reasonable taking into account the type of meat
The price is affordable
The meat is on sale
The meat looks fresh
The meat is displayed hygienically

[10] Q15. In the following screens/pages you will see a number of aspects that may be important for you when buying meat.

[11] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?

Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?

Q12C. And when you buy non-packaged meat products?

Q12D. And when you buy pre-packaged meat products?

[12] Q15. In the following screens/pages you will see a number of aspects that may be important for you when buying meat.

The use by/best before date is far away
The meat has a low fat content
The type of meat is the one I usually buy
The meat is easy to prepare
The type of meat is tasty
The meat is organic
The meat is animal welfare certified
The meat is produced according to environmental standards
The meat is from animals that have not been fed by genetically modified feed
The meat is produced in my country
The meat is produced within the European Union
The origin of the meat can be traced back to the producer

Respondents were shown successive screens presenting different combinations of five aspects. For each screen, they were asked which aspects where the most and least important to them when purchasing meat. Answers were then analysed to produce an overall ranking. For instance, if item A is more important than item B and item B is more important than item C, it can be inferred than item A is more important than item C. Using this technique, all 17 items were ranked in order of importance for consumers.

The importance of each item is expressed as a percentage that reflects their weight in the purchase process. The sum of the percentages for the 17 items adds up to 100%. Items with higher scores play a greater role in the consumer decision-making process when purchasing meat. A hypothetical average score would be 5.9% for an item, thus it can be assumed that results above 5.9% indicate that an item is one of consumers' priorities. The maximum difference technique allows us to identify exactly what motivates consumers to choose a specific piece of meat or meat product.

Figure 9.presents the average importance scores for each item. On the average in the EU27, the most important item is **freshness**, followed in this order by **taste**, **hygienic display**, **reasonable price**, **produced in my country** and **affordable price**.

Figure 8. Q15. Factors consumers take into account when buying meat (% share of each factor out of 100%)

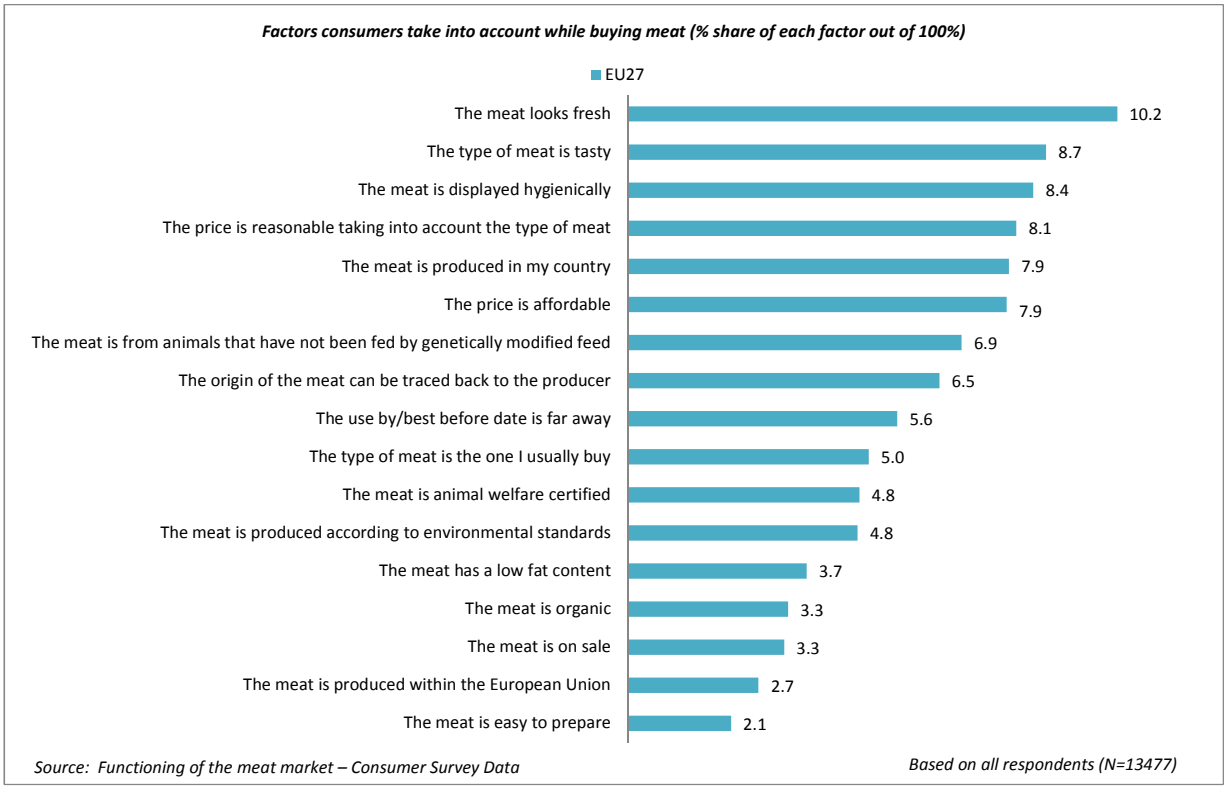


Figure 9. below presents the average importance scores by country for each item. In the table, the 17 aspects are named according to the key issue each of them represents.

In general, **intrinsic cues such as freshness, taste**, **hygienic display seem to play a very important role in the consumer decision-making process**. This could be linked to the fact that these are aspects that can be assessed directly by consumers. Consumers seem to pay more attention to items that are close to them and directly improve their experience, but are not primarily concerned about larger issues, such as environmental concerns. In contrast, organic or animal welfare certifications need to be trusted as consumers cannot 'see' if a meat product is indeed organic or animal welfare certified. The cues that end up above are thus cues that can be described as more 'tangible' as the ones that end up at the bottom. This is is in line with our preliminary conclusion that intrinsic cues such as perceived freshness and hygiene and taste are most likely to impact consumer decision making

Next to freshness, taste and hygienic display, **two price items - reasonable price and affordable price -** also appear high on the list. This result is in line with expectations as consumers are more likely to be driven by prices during difficult economic times. Some national stakeholders also highlighted the impact of the economic crisis on consumers' behaviour when purchasing meat, for instance a focus on cheaper types of meat and meat products.

The meat is produced in my country also receives a high score. This outcome could be linked to a preference for national or local meat among many consumers in the European Union. As outlined earlier, origin is associated with a range of positive attributes by many consumers, including overall quality and safety,

which can explain the high score for this item. Some of the national stakeholders also mentioned that consumers in their respective countries express a preference for national meat. This was particularly mentioned for Greece, France, Poland, Austria and Sweden. Only a handful of stakeholders thought consumers in their countries preferred foreign meat; this was mentioned for Portugal and Slovakia. **This national preference can be emotional, in terms of national identity or pride, but also rational, as consumers may have a better knowledge of national products and processes. For instance, consumers may be more familiar with quality controls, certifications and other country-specific aspects**.

Specific meat types seem to play a lesser role in the consumer decision-making process of meat buyers in the EU, as organic, animal welfare and environmental certifications obtain lower scores. Interestingly, sustainability is also the area that obtained the lowest performance score from EU and national stakeholders. This area may be underperforming due to a lack of consumer interest. However, it is important to note that these results show the *relative* importance of items. Organic, animal welfare and environmental certifications are less important than intrinsic cues, price and origin, but they may still be important for some consumers or play a role in the decision-making process.

The highest scoring environmental and ethically-oriented item is the **absence of genetically modified feed**. This item is driven by high scores in a few countries, such as Cyprus, Greece and Italy. Consumers in these countries seem to be more sensitive to this topic, as highlighted in previous research: over 70% of Cypriot, Greek and Italian consumers say they were worried about genetically modified products in food or drinks in 2006, compared with 62% of consumers on average in the EU (Special Eurobarometer 238, 2006).

Safety items are mostly in the middle of the ranking with the best before date, traceability and the lack of GM feed scoring between 5 and 6 in terms of importance. Hygiene is much more important than these items with an average score of 8.4. Based on earlier findings regarding consumers using a range of cues to assess safety, this could indicate that consumers focus on hygiene as an intrinsic cue of safety, and give less importance to extrinsic safety cues that are out of their control.

The bottom three items in terms of importance are sales, produced in the EU and the meat is easy to prepare. National stakeholders were asked to comment on these results and some of them were surprised by the low score of 'The meat is on sale' given the economic situation and the fact that discounts on meat prices are likely to attract consumers. However, other interviewees pointed out that meat on sale may be perceived as less safe by consumers. This is also a finding from a 2010 survey on attitudes towards beef and pork (Verbeke, Pérez-Cueto, de Barcellos, Krystallis & Grunert, 2010).The low score for this item could also be explained by the fact that consumers will not use this aspect as their main criteria when purchasing meat, but will buy meat on sale if it meets their other criteria (e.g. type of meat, freshness, hygienic display). In the words of one stakeholder, 'If I have to buy a steak I do not buy a hamburger because it is on offer.' The same reasoning could be applied to 'Easy to prepare.' Indeed, several stakeholders from the retail sector were surprised by this item's low score given that sales of ready-made products are on the rise in some Member States. However, consumers may not see it as a key criterion. Finally, **'produced in the EU'** also obtains a low score. This can be contrasted with 'produced in my country', which obtains one of the highest scores.

Figure 9. Results of the Maximum Difference scaling analysis

	Freshness	Taste	Hygienic display	Reasonable price	Produced in my country	Affordable price	No GM feed	Traceability	Best before date	Usual purchase	Animal welfare certified	Environmental standards	Low fat content	Organic meat	On sale	Produced in the EU	Easy to prepare
EU27	10.2	8.7	8.4	8.1	7.9	7.9	6.9	6.5	5.6	5	4.8	4.8	3.7	3.3	3.3	2.7	2.1
AT	9.1	7.8	7.9	6.3	9.9	6.3	9.9	8.9	5.1	3.6	4.8	4.8	2.8	5.8	3.6	1.9	1.5
BE	11	11.4	10.2	9.3	4.6	9.4	4.2	6.5	6.4	5.2	3.7	4	3.9	2.3	3.4	2.1	2.2
BG	12.6	8.3	7.6	9.7	9.5	9.9	6.7	4.7	9.8	8.1	1	1.7	3.8	1.6	1.4	1.1	2.4
CY	11.6	7.1	10	4.3	10.2	4.3	11.7	2.5	2.5	6.9	7.1	4.3	3.3	3.5	1.8	2.8	6.1
CZ	11.8	9.7	8.2	9.5	8.2	9.5	4.1	4.4	9.5	6.9	3.5	3.3	2.9	1.3	3	1.2	2.9
DE	8.4	8.7	8.1	7.8	6.2	6.9	8.5	8.3	6.1	4.6	4.9	4.5	4.1	4.9	3.7	2.5	2
DK	10.3	10.1	7.2	8.5	6.3	8.4	6.3	4.6	6.9	2.7	4.2	4.4	6.6	4.4	4.9	2	2.5
EE	11.5	11.2	7.4	10.5	11.1	10.5	5.4	3.3	7.6	4.5	1.3	2.1	3.9	2.6	2.4	1.5	3.4
EL	11.1	7.2	9.8	4.6	11.6	4.7	10.1	7.2	2.5	3.4	6.9	4.9	3.3	5.1	0.9	3.2	3.1
ES	11.5	8.3	10.6	7.4	7.7	6	6.9	5	4.9	5.2	4.8	5.7	4.9	2.7	3.3	3.3	1.6
FI	8.4	9.5	8.1	10.2	10.3	8.5	6	5.3	4.9	5	3.6	2.8	3.4	3.1	5.9	1.6	3.6
FR	10.4	8.7	7.4	9.2	8.4	9.1	5.5	9	5.2	4.1	4.2	3.8	2.4	2.9	5.1	2.8	1.6
HU	10.2	8.2	8.1	11.3	9.1	11.3	6	4.8	6.5	6.1	3.2	3.4	3.3	1.1	4.7	1.3	1.3
IE	10.2	8.5	9	9.2	9.1	9.4	5.4	8.9	5.5	3.3	3.7	4.6	2.9	2.6	2.8	2.9	1.9
IT	7	5.4	8.6	4.6	12	3.5	10.4	9.4	2.4	5.1	8	7.5	2.6	3.6	2	7.1	1
LT	9.1	7.9	9.2	7.6	8.9	8.2	9.4	3.2	5.5	6.5	2.7	3.5	4.4	7.8	3.3	1.1	1.6
LU	10.7	10.4	9.4	6.3	8.7	4.4	7.8	9.3	3.7	4.7	5.4	4.2	3.8	5.1	1.6	3.2	1.4
LV	10.4	11	8.5	8.3	8.5	7.5	7.4	5.3	5.9	6.4	1.8	4	4.6	4.4	2.7	0.8	2.3
MT	14.7	10.5	12.2	6.6	4.4	5.8	4.3	3	6.8	5	4.3	5.5	9.5	2	1.3	2.1	2
NL	11.1	12.7	9.2	9.1	2.3	10.6	5.2	3	4.9	5.4	4.3	4.2	4.8	3.3	3.8	1.5	4.7
PL	11.1	11.5	4.2	9.5	8.4	9.4	6.3	2.8	7.7	8.3	2.8	4.1	4.5	3.5	0.9	0.9	4
PT	13.6	8.5	11	8.5	7.7	9.3	4.2	4.5	4.3	5	5.1	3.4	5.1	2.2	3.8	1.7	2.2
RO	12.3	6.6	12.2	6.3	7.4	7	5.4	3.3	11.7	5.7	5.2	4.3	4.9	2.5	1.5	1.1	2.8
SE	10.2	10.3	7	7.7	9.3	7.4	8.6	8.2	3.2	4.5	4.7	5.7	1.9	3.6	2.7	2.4	2.8
SI	9.2	8.2	6.8	6.3	11.1	5.2	7.4	8.5	5.1	4.2	4.1	6	4.6	3.7	2.5	5.1	2
SK	11.7	7.7	8.8	9.5	7.7	9.8	5.2	5	7	6.3	4.1	3	2.9	1.9	5	2.1	2.3
UK	11.8	9.9	8.8	10.4	5.9	11.5	4.8	4.9	5.4	3.6	4.8	5	3.7	2.3	3.9	1.5	2

6.4.2 Break-down of results

Turning to socio-demographic characteristics, the top three items of the ranking vary slightly across categories. **Reasonable price is more important for men**, as it appears in third position in their ranking instead of Hygiene. **Produced in my country comes in third position for respondents aged 55-75 and rural respondents**, instead of Hygiene. Finally, **respondents who say they experience difficulties paying their bills 'most of the time' focus more on price**, with Reasonable price and Affordable price in second and third position after freshness.

The Maximum Difference ranking also varies slightly depending on consumer interest in different types of meat and pieces of information. Respondents who are **not aware of any of the meat types** mentioned at question 2 (e.g. animal welfare certified, organic) have slightly different priorities from other consumers. 'Affordable price' comes in second position, with freshness and taste completing the top three. Similarly, consumers who say they **have not purchased any of the specific meat types** in the past month focus more on Reasonable price and Affordable price, which appear in third and fourth position in their ranking.

Consumers who are aware of **religiously slaughtered meat** put a higher priority on price, with Reasonable price coming in third position in their ranking instead of Hygiene. The same trend is visible among respondents who have purchased religious slaughter meat in the past month: affordable price comes second in their ranking instead of taste.

Consumers who are aware of **environment or climate certified meat** focus more on 'GM-free feed,' which comes in second position in their ranking after freshness. Besides, the top three items for consumers who have bought organic, animal welfare or environment/climate certified meat in the past month are freshness, GM-free feed and traceability.

A similar trend can be observed among consumers who **look for information** about animal welfare, organic, environment/climate or GM-free certifications: they give more importance to GM-free feed, traceability and Produced in my country.

Respondents who purchased meat for which the country of **origin** is specified or origin certified meat in the past month put more emphasis on Produced in my country, which appears in second position in their ranking. Produced in my country also comes at the top of the ranking for consumers who look for producer or country of origin information when purchasing meat. Besides, consumers who look for origin certifications focus more on Produced in my country and traceability, which come in second and third position in their ranking after freshness.

Finally, consumers who look for **price** information (in general or by kilogram) give more importance to Reasonable price, which comes in third position in their ranking.

Overall, consumers' priorities are consistent with their awareness and information-seeking behaviour.

6.4.3 Cross-country differences

The results of the Maximum Difference Scaling also vary across countries, as consumers have different priorities and concerns – please see figure 9. above. Some of the most important differences are described below.[13]

[13] Please note that only results different from the EU27 mean by more than 3 points are commented on in this section.

Freshness is less important than average in Italy but more important than average in Malta and Portugal. Taste is also below average for Italy, but above average in the Netherlands. A hygienic display is more important for Maltese and Romanian consumers but less important for Polish consumers.

Reasonable prices and **affordable prices** are more important than average in Hungary and less important than average in Cyprus, Greece and Italy, while affordable prices are more important in the UK and less important in Luxembourg. Meat on sale has a lower priority overall with no striking differences across countries. Interestingly, the scores of price items do not seem related to objective price levels or expenditure on meat. Hungary is in the low price level country grouping (as defined in the consumer prices chapter), the UK, Luxembourg and Italy in the high price grouping, and Cyprus and Greece in the medium price grouping. In terms of expenditure on meat as a percentage of total household expenditure, meat represents a high share of consumers' budget in Hungary and a low share in Luxembourg, but the pattern is not as consistent for the other countries mentioned above.

There are more differences for **origin** items: 'produced in my country' is more important than average in Estonia, Greece, Italy and Slovenia, but is less important in Belgium, Malta and the Netherlands. A number of countries are below average for traceability: Cyprus, Estonia, Lithuania, Malta, the Netherlands, Poland and Romania. The scores for 'produced in the EU' are more consistent, although Italy's result is above average.

Turning to **ethically-oriented concerns**, Cyprus, Greece and Italy find non-genetically modified feed more important than average. Animal welfare certifications are also more important in Italy, but less important in Bulgaria and Estonia. Results for environmental and organic certifications are closer to the EU27 average, although Bulgarian consumers find environmental certifications less important and Lithuanian consumers find organic certifications more important.

In terms of **health-related items**, the best before date is more important in Bulgaria, the Czech Republic and Romania and less important in Cyprus, Greece and Italy. Low fat content is more important for Maltese consumers.

Finally, **habit** (usual purchase) is more important than average in Bulgaria and Poland, while easy to prepare is more important for Cypriot consumers.

6.4.4 Country profiles

We will now look in more detail at several countries that obtained above or below average scores on a range of items. Results of the analysis of consumer priorities in terms of motivation attributes are presented together with some relevant results of the analysis of other aspects, such as information items that consumers look for or specific types of meat that consumers use. Full analyses of these aspects are presented in the chapters that follow.

Bulgarian consumers focus more on best before date and habit, and less on animal welfare and environmental certifications. National stakeholders mention that purchasing meat that will keep well is important for consumers. In terms of certifications, it can be seen from the consumer survey and mystery shopping results that Bulgarian consumers have a lower awareness of these products and that they are not widely available for purchase. 22% of Bulgarian consumers say they know animal welfare certified products, compared with 44% overall. This figure is 6% for environment or climate certified products, compared with 15% across the EU. Besides, animal welfare labelling was available on 1% of products assessed in Bulgaria, compared with 20% on average. Bulgarian consumers were also less likely than average to look for these aspects when purchasing meat: 4% say they look for animal welfare certifications, compared with 22% on average in the EU, and 2% mention environment or climate certifications, compared with 12% on average.

National stakeholders' comments are consistent with these results as they explain that there is a limited market for these products in Bulgaria at this point in time.

Consumers in **Cyprus** give more importance to non-genetically modified feed and the meat being easy to prepare, and less importance to a range of other items: reasonable price, affordable price, traceability and best before date. As mentioned, Cypriot consumers seem more sensitive to the issue of genetically modified foods, which may explain the first finding. However, only 2% of Cypriot consumers look for information about GMO-free feed when purchasing meat, while this figure is 17% across the EU.

National stakeholders link the low importance of traceability to the lack of producer information on Cypriot meat and to consumers not knowing where to find this type of information. Still, the proportion of consumers who look for producer information when purchasing meat, 44%, is very close to the EU average, 43%. Cypriot consumers are less likely than the average to look for the price when purchasing meat (52% in Cyprus compared with 67% on average), but are more likely to look for the best before date with 72%, compared with 68% overall.

Cypriot consumers' information seeking behaviour therefore does not match the importance given to different aspects of the meat market. However, it is important to note that consumers in Cyprus are more likely than the average to buy non-packaged meat (98% compared with 75% on average). The availability of labelling information is also below average across the board: none of the products assessed displayed origin, animal welfare or organic certifications. The best before date was available on 60% of products, compared with 90% on average. The price per unit (88% compared with 92% on average) and the country of origin (91% compared with 86%) were slightly more likely to be available. This shows that consumers may be interested in some information items, but may not actively look for them if they are rarely available on labels.

Greek consumers have a similar profile in terms of non-genetically modified feed and best before date. They also obtain lower scores for reasonable and affordable prices. However, in contrast to Cypriot consumers, they give more importance than average on 'produced in my country.'

Greek consumers are more aware of meat for which the country of origin is specified (89%, compared with an average of 76%) and those who were aware were more likely to purchase it (85% have done so in the past month, compared with 79% overall). Country of origin information was available for 98% of Greek meat, compared with 86% on average. Besides, 78% of Greek consumers say they look for country of origin information when purchasing meat, compared with 48% overall. National stakeholders point out that Greek consumers associate a local origin with quality and have a strong focus on good quality meat, which may explain the importance of country of origin information.

As in Cyprus, only 2% of Greek consumers say they look for information on GMO-free feed when purchasing meat. Still, all Greek respondents but one had bought non-packaged meat in the past month. This focus on non-packaged meat may explain why Greek consumers do not look for detailed information items that may only be available on meat labels.

Maltese consumers pay more attention to freshness and a hygienic display than the average. They are also more likely to look for the best before date on products, with 78% saying they do so, compared with 68% on average.

Consumers in Malta pay less attention to 'produced in my country' and traceability. These two items could be linked to a high proportion of imported meat. National stakeholders mention that local production is limited and

that most meat is imported from other EU countries. Still, the proportions of Maltese consumers who look for country of origin (52%) or producer (41%) information are close to the average (respectively 48% and 44%).

Italian consumers have a fairly different profile from other consumers as their scores are lower or higher than the average for more than half of the items. They give more importance to 'produced in my country', non-genetically modified feed, animal welfare certifications and 'produced in the EU'. Additionally, they focus less on freshness, taste, reasonable and affordable prices and the best before date.

The sensitivity of Italian consumers to genetically modified foods was pointed out earlier, although only 4% say they look for information on GMO-free feed when purchasing meat (compared with 17% on average). The comment made for Cyprus and Greece applies here as well, as 90% of Italian consumers have purchase non-packaged meat in the past month.

National stakeholders highlight that Italian consumers have a preference for national and local food products, which may be associated with higher quality. Indeed, 84% of Italian consumers are aware of meat for which the country of origin is specified (76% on average) and 83% of those who were aware have purchased it in the past month (79% on average). Country of origin information is also available on 92% of products assessed in Italy, compared with 86% overall.

A 2007 survey found out that farm animal welfare is 'very important' for 77% of Italians, while 41% say they always think of animal welfare when buying meat (Mayfield, Bennet, Tranter & Wooldridge, 2007). This ties in with the importance of animal welfare certifications and the fact that such labelling is available on 48% of the products assessed in Italy (compared with 20% overall). However, both awareness (49%) and purchase (50%) figures for animal welfare certified meat are close to the average figures (respectively 44% and 49%).

Estonian consumers focus more on 'produced in my country' and less on traceability and animal welfare certifications. Estonian consumers are more likely than the average to look for country of origin information (66% compared with 48% overall) or origin certifications (36% compared with 26% overall) when purchasing meat. 70% of Estonian consumers are aware of origin certified meat (compared with 55% on average), although only 34% are aware of meat for which the country of origin is specified, (compared with 76% on average). Similarly, 61% of Estonian consumers who are aware have purchased meat with a country of origin specification in the past month (compared with 79% on average), and 74% of those who were aware have purchased origin certified meat (compared with 59% overall). This difference could be linked to the fact that origin certifications are more frequent in Estonia than in other countries: they were found on 56% of assessed products, compared with 40% overall. In comparison, country of origin labelling availability (84%) is close to the average (86%).

Turning to animal welfare certifications, Estonian consumers are less aware of them (20% compared with 44% on average) and less likely to have purchased them in the past month (24% compared with 49%). 12% of Estonian consumers say they look for this piece of information when purchasing meat, compared with 22% across the EU. In parallel, animal welfare certifications were only available on 4% of the products assessed in Estonia, which is below the EU average (20%).

In countries where the score for '**produced in my country**' is above or below average, this item's importance seems to match consumers' interest for country of origin information. 'Produced in my country' is more important for **Slovenian** consumers, who are also more likely than average to look for this information item: 61% say they do so, compared with 48% overall. In contrast, **Belgian** and **Dutch** consumers focus less on

'produced in my country.' They are also less likely to look for country of origin information with 38% of Belgian and 24% of Dutch consumers looking for it, compared with 48% overall.

Similarly, the importance of **price** matches consumer's interest in several countries. **Hungarian** consumers focus more than average on reasonable price and affordable price in the Maximum difference scaling. They are also more likely than average to look for the price per kilogram when purchasing meat: 85% say they look for this, compared with 67% on average. **UK** consumers focus more than average on affordable price and 78% of them look for price information when purchasing meat, compared with 67% overall. The opposite trend appears in **Luxembourg**, where affordable price gets a lower than average score and consumers are less likely to look for price information: 51% of consumers look for the price (compared with 67% overall) and 59% look for the price per kilogram (compared with 67%).

The results for **hygiene** and the **best before date** are slightly less consistent. **Romania** has a higher than average score in terms of the best before date importance. This matches the fact that 83% of Romanian consumers look for this piece of information, which is above the EU average (68%). However, the best before date is more important than average for **Czech** consumers in the Maximum Difference ranking, but the proportion of consumers looking for this piece of information (72%) is close to the EU average (68%).

It is also worth noting the case of **organic meat in Lithuania**: 'The meat is organic' has a higher than average score and 37% of Lithuanian consumers look for this piece of information, compared with 18% overall.

6.4.5 Grouping of motivational aspects

Next to the maximum difference scaling, we used principal component analysis (PCA) on question 15 to test our hypotheses about consumer motivation. The purpose was to check if the motivational drivers uncovered in the rest of the analyses are present in the data and can be identified through a statistical analysis as described in the annexes to this report (see annex II).

In short PCA converts a set of observations of possibly correlated variables into a set of values of uncorrelated components. In other terms, the PCA is a way to 'reduce' a large number of questions to a more limited number of components without losing information in the process.

Figure 10. shows five components/patterns which, together, explain 67 per cent of the variance. This means that the five factors as shown in the table below explain 67 per cent of the 100 per cent one would explain using the seventeen items of question 15. Basically this means that the five components distinguished extremely reduce the complexity of question 15, which makes that one can more easily look into relationships with other questions.

The first component, which explains the most variance (35%), can be labelled as '**the ethical component**'. You can find this component in column 1 looking at the figures that are above (-) 0.5. What is obvious from this too is that these items have a low score (< (-).500 when one looks at the other components. This clearly shows that the items belong to component 1 and not to any of the four others. Within this first component one can clearly distinguish a rational non-ethical part (negative sign in the table) consisting of three questions that focus on price (*the price is reasonable taking into account the type of meat: -.738; the price is affordable -.753; the meat is on sale: -.561*) and an ethical part (positive sign in the table: *the meat is organic .717; The meat is animal welfare certified .747; the meat is produced according to environmental standards .756; The meat is from animals that have not been fed by genetically modified feed .643*). The second component is related to **the origin of meat or the place of production**, grouping together the items *the meat is produced*

in my country .836, *the meat is produced in the European Union .621* and *the origin of meat can be traced back to the producer .616*. This in short means that consumers who are driven by one of these aspects are likely to be driven by the other two aspects. The third component refers to a more **habitual group of aspects** when buying meat ('*It is the meat I usually buy' .705*, '*It is easy to prepare*' *.644 and 'The type of meat is tasty' .621*). Again, this means that consumers that are driven by habit or convenience are more likely to also be driven by taste when purchasing meat. The fourth component groups together the items that refer to **the appearance of meat** and its display in the shops (*'The meat looks fresh' .706; 'The meat is displayed hygienically' .815*). The last component coincides with **the aspect of health** in terms of low fat content of meat (.821).

Figure 10. Important aspects when buying meat

	COMPONENT				
	Ethical	Origin	Habit	Appearance	Health
q15r1 Q15 - The price is reasonable taking into account the type of meat	-0.738	-0.434	-0.013	-0.154	-0.231
q15r2 Q15 - The price is affordable	-0.753	-0.485	-0.051	-0.215	-0.157
q15r3 Q15 - The meat is on sale	-0.561	-0.356	-0.142	-0.417	-0.039
q15r4 Q15 - The meat looks fresh	-0.319	-0.246	0.217	0.706	-0.071
q15r5 Q15 - The meat is displayed hygienically	0.050	-0.117	-0.133	0.815	0.007
q15r6 Q15 - The use by/best before date is far away	-0.290	-0.071	-0.135	0.391	0.497
q15r7 Q15 - The meat has a low fat content	0.080	-0.107	0.098	-0.113	0.821
q15r8 Q15 - The type of meat is the one I usually buy	-0.222	0.098	0.705	0.014	0.013
q15r9 Q15 - The meat is easy to prepare	-0.096	-0.252	0.644	-0.188	0.153
q15r10 Q15 - The type of meat is tasty	-0.183	-0.373	0.621	0.221	-0.235
q15r11 Q15 - The meat is organic	0.717	-0.054	-0.113	-0.257	-0.049
q15r12 Q15 - The meat is animal welfare certified	0.747	0.068	-0.353	-0.131	-0.116
q15r13 Q15 - The meat is produced according to environmental standards	0.756	0.108	-0.362	-0.112	-0.054
q15r14 Q15 - The meat is from animals that have not been fed by genetically modified feed	0.643	0.149	-0.316	-0.144	-0.100
q15r15 Q15 - The meat is produced in my country	0.034	0.836	-0.035	-0.090	-0.117
q15r16 Q15 - The meat is produced within the European Union	0.138	0.621	-0.101	-0.128	-0.007
q15r17 Q15 - The origin of the meat can be traced back to the producer	0.354	0.616	-0.253	-0.123	-0.164

To summarise the findings of the PCA, we find rational and emotional groupings of attributes considered by EU citizens when buying meat. Both emotional and rational drivers play a role in the consumer decision making process. We can moreover conclude that consumers' motivation is driven in practice by price and ethical considerations, place of production, convenience, appearance and health concerns. The data analysis confirms that the latent concepts identified earlier in the analysis are indeed central in the meat market.

6.4.6 Mystery shopping auditors' motivation for choice of products

As part of each mystery shopping visit, mystery shoppers were asked to buy one product. They were then asked to write down their reasons for choosing this product. Figure 11. shows a breakdown of their comments by topic. Interestingly, **their open comments match to some extent the results of the maximum difference scaling and PCA analysis**.

All elements related to labelling (organic, animal welfare certified, amount of information provided) were mentioned most often, followed by the appearance of the meat. Other common answers were origin, price, quality and the type of meat.

Figure 11. Comments by topic

Topic	Number of comments
Label	42
Appearance	34
Origin	27
Price	26
Quality	15
Meat type	14
Packaging	9
Convenience	6
Health	5
Retailer	5
Use by date	5
Other	3
TOTAL	191

Examples of quotations from mystery shoppers are presented below. Looking at specific comments, a few mystery shoppers mention organic or animal welfare certifications:

'I prefer organic even if it is more expensive'

'Complete confidence in organic products'

'I was pleased to see the RSPCA logo on this product. It makes me think the animals were looked after well.'

Appearance was also important for some mystery shoppers:

'Because of the colour.'

'Chop was cut thin and marbled'

'Looks tasty'

Different aspects of origin were mentioned, such as the country or region of origin, or the brand:

'Because Hungarian product'

'Local product'

'Brand is trustworthy'

Value for money and offers were also mentioned several times:

'Good offer on buy 2 for 3.00.'

'Value for money'

'Maxipack offer'

Different aspects of quality were mentioned:

'Superior quality'

'Does not contain dyes, preservatives, flavour enhancer'

'Prepared on demand.'

Some mystery shoppers seem to have had a predefined idea of the type of meat and quantity they wanted to buy:

'Flexible for cooking different dishes'

'It was the only chicken available, and I needed for the lunch.'

'Because it is a product that is consumed by all the family.'

'It was the only boneless pork cutlet in the store.'

'Convenient weight and size'

'Desired quantity'

Others mention habit, health-related aspects, the use by date or the influence of the retailer:

'It is a habit to buy this meat'

'This meat wasn't too fat.'

'Contains omega 3.'

'Long lasting, the date of use is long : it must be very fresh.'

'It was within the Best Before Date.'

'Butchers description of different types/flavours'

6.5 Information aspects looked at when buying meat

After analysing consumer priorities when purchasing meat, we will look at a different aspect of motivation with question 12 of the consumer survey: respondents were asked which information aspects they look at when buying fresh meat and meat products.

6.5.1 Overall results

Figure 12. shows the overall results for question 12[14] for the EU27, EU15 and EU12.

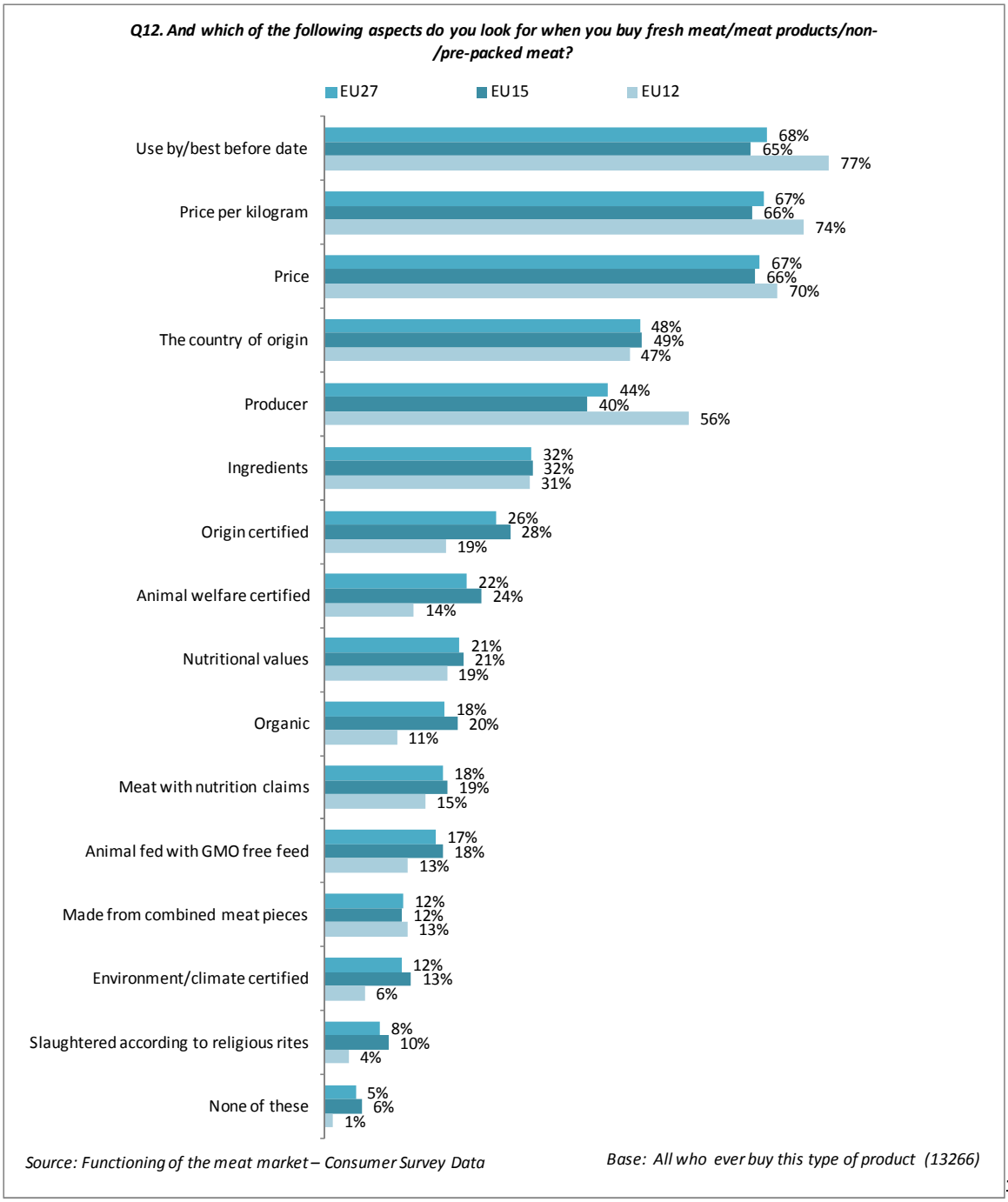
Overall more than half of the consumers look at three key aspects when purchasing meat: the **use by/best before date** (68%), the **price per kilogram** (67%) and the **price** (67%). 48% and 44% of consumers respectively look at the country of origin and the producer when buying meat. Only 12% of consumers say they look for information on whether meat is made from combined meat pieces. 12% look for environment/climate certificates and 8% for information on whether meat was slaughtered according to religious rites.

Comparing the answers of consumers from members states that joined the EU recently with the answers of EU15 respondents it is apparent that EU12 countries are more likely than EU15 consumers to look at the following aspects: the use by or best before date (77% compared with 65%), the price per kilogram (74% compared with 66%), the price (70% compared with 66%) and the producer (56% compared with 40%). Consumers from EU15 countries on the other hand are more likely than EU12 consumers to look at indications of special meat types: origin certifications (28% compared with 19%), animal welfare certifications (24% compared with 14%), organic information (20% compared with 11%), nutrition claims (19% compared with 15%), GMO free feed information (18% compared with 13%), environment or climate certifications (13% compared with 6%) and religious slaughter information (10% compared with 4%).

When assessing the differentiation between answer applying to fresh meat and to meat products regarding question 12[15] we can see that consumers on the one hand are more likely to look at the following aspects when buying fresh meat than meat products: price per kilogram (65% compared with 58%), price (64% compared with 60%), country of origin (45% compared with 38%), animal welfare certifications (20% compared with 15%) and organic information (17% compared with 14%). The following aspects, on the other hand, are mentioned more often for meat products than for fresh meat purchases: ingredients (29% compared with 22%) and nutritional values (18% compared with 15%).[16]

[14] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?
Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?
Q12C. And when you buy non-packaged meat products?
Q12D. And when you buy pre-packaged meat products?
[15] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?
Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?
Q12C. And when you buy non-packaged meat products?
Q12D. And when you buy pre-packaged meat products?
[16] Please note that 'Made from combined meat pieces' was not a possible answer for fresh meat purchases.

Figure 12. Q12. Aspects looked at when buying meat



[17]

[17] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?
Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?

Q12C. And when you buy non-packaged meat products?

There are wide variations across countries and a few results differ from the average by more than 20 percentage points. 43% of consumers look for **producer** information, but this proportion is much higher in Estonia (71%), Bulgaria, Slovenia (both 69%), Latvia (68%) and Lithuania (65%). It is lower in the Netherlands with 19%.

Luxembourgish (49%, compared with 26% overall) and Hungarian (48%) consumers are much more likely to look for **origin certifications**. Cypriot (4%) and Romanian (7%) consumers are less likely to look for this information item. These results match to some extent the availability of origin certifications in these four countries: they appear on none of the products assessed in Cyprus, 27% of products in Romania, 38% of products in Hungary and 36% of products in Luxembourg.

Estonian (54%) and Czech (53%) consumers are more likely to look for **ingredients** on packages, while Portuguese (5%) and Cypriot (9%) consumers are less likely to do so.

Consumers in Austria, Luxembourg and Denmark (all 38%, compared with 18% overall) are more likely to look for **organic certifications**. Interestingly, these three countries have relatively high proportions of products with organic labelling: 24% in Denmark, 22% in Austria and 20% in Luxembourg.

Greek consumers (78%) are more likely to look for **country of origin information**, while Dutch consumers (24%) are less likely to do so. This matches the availability of country of origin labelling in these two countries: it appears on 98% of products in Greece and 47% of products in the Netherlands.

6.5.2 Results by socio-demographic category

Figure 13. shows results by socio-demographic category.

Women are more likely than men to look at the following aspects when purchasing meat: **price per kilogram** (68.8% compared with 65.7%), **use by/best before date** (70.4% compared with 65.3%), **animal welfare** certifications (23.3% compared with 20.3%), **ingredients** (34% compared with 29.2%) and **nutritional values** (22.8% compared with 18.5%).

Respondents aged **55-75** are more likely to look for **country of origin** information than other age groups, with 51.7% doing so, compared with 44.8% for 18-34 year-olds and 48.1% for 35-54 year-olds.

The **18-34 age group** is more likely than other age groups to look for a range of information: **animal welfare** certifications (25.4%), **religious slaughter** information (13.3%), **organic certification** (21.7%), **environment** or climate certification (15.4%) and **nutritional values** (24.3%).

Rural consumers (46.6%) are more likely to look for **producer** information than urban consumers (41.3%). However, **urban consumers** are more likely than their rural counterparts to look for a range of other aspects: **price per kilogram** (68.7% compared with 65.3%), **animal welfare** (23.1% compared with 20.1%), **religious slaughter** (10.0% compared with 6.3%), **organic** (20.2% compared with 15.8%), **environment** or climate (13.0% compared with 10.0%), and **origin** certifications (27.8% compared with 24.2%), **nutrition** claims (20.2% compared with 15.2%), **nutritional** values (22.0% compared with 18.9%) and **GM-free feed** (17.7% compared with 16.0%).

Consumers who buy non-packaged meat are more likely to look for **producer** (48.1%) and **country of origin** (51.4%) information. These figures are respectively 43.0% and 48.5% for packaged meat.

Q12D. And when you buy pre-packaged meat products?

High frequency consumers are more likely than other groups to look for the **use by date**, with 71.9% doing so, compared with 68.4% of medium frequency consumers and 62.0% of low frequency consumers. They are also more likely to look for **nutrition claims** (22.5%), **nutritional values** (24.5%), **GM-free feed** (19.8%) and information on meat made from **combined meat pieces** (15.7%).

Consumers who have supermarkets or equivalent retailers as their main retailer are more likely to look for the **price** (67.9%, compared with 64.4% for other consumers). Consumers who say their main retailer is a **butcher, market or farm** are more likely to look for a range of aspects: **producer** (47.9% compared with 42.9% for other consumers), **country of origin** (52.7% compared with 48.3%), **animal welfare** (24.4% compared with 22.0%), **organic** (20.5% compared with 18.7%) and **origin certifications** (29.6% compared with 27.0%).

Figure 13. Q12. Aspects looked at when buying meat

Q12. And when you buy fresh meat/meat products/non-/pre-packed?		GENDER		AGE			AREA		MEAT PURCHASED				EATING FREQUENCY			PLACE OF PURCHASE	
Base: Those respondents who have ever bought the type of meat/meat products	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL	Fresh meat	Meat products	Nonpackaged	Packaged	High	Middle	Low	Supermarket and eq.	Other
Basesize	**13266**	**6189**	**7077**	**3881**	**5439**	**3946**	**7469**	**5797**	**13014**	**12315**	**9916**	**11551**	**2578**	**8711**	**1977**	**12449**	**8999**
Price	66.8%	66.2%	67.3%	67%	67.8%	65.2%	67.3%	66%	66.8%	66.8%	65.7%	68.4%	68.3%	66.9%	64.6%	67.9%	64.4%
Price per kilogram	67.3%	65.7%	68.8%	65.1%	69%	67%	68.7%	65.3%	67.4%	68%	67.4%	69.2%	70.3%	68.3%	59.8%	68.6%	66.9%
Use by/best before date	67.9%	65.3%	70.4%	69.8%	67.8%	66.4%	67.7%	68.2%	68%	68.8%	68.9%	70.6%	71.9%	68.4%	62%	69.4%	69.6%
Producer	43.5%	43.5%	43.6%	41.8%	43.7%	44.9%	41.3%	46.6%	43.7%	44%	48.1%	43%	45.5%	43.4%	42%	42.9%	47.9%
The country of origin	48.3%	48.5%	48.1%	44.8%	48.1%	51.7%	48%	48.7%	48.6%	48.6%	51.4%	48.5%	46%	49.4%	46.2%	48.3%	52.7%
Animal welfare certified	21.8%	20.3%	23.3%	25.4%	21.5%	19.1%	23.1%	20.1%	21.9%	22.3%	22.8%	22.1%	23%	21.5%	22.2%	22%	24.4%
Slaughtered according to religious rites	8.4%	9%	7.9%	13.3%	7.6%	5%	10%	6.3%	8.4%	8.3%	8.9%	8.7%	10.2%	8.1%	7.7%	8.6%	9.1%
Organic	18.4%	17.8%	18.9%	21.7%	18.3%	15.4%	20.2%	15.8%	18.4%	18.7%	18.7%	18.8%	20.6%	17.6%	19.2%	18.7%	20.5%
Environment/climate certified	11.7%	12.4%	11%	15.4%	10.7%	9.6%	13%	10%	11.8%	11.9%	12%	12%	14.1%	11.1%	11.7%	11.9%	12.4%
Origin certified	26.3%	26.4%	26.1%	25.7%	25%	28.4%	27.8%	24.2%	26.4%	26.9%	28%	27.1%	29%	26.1%	24.1%	27%	29.6%
Meat with nutrition claims	18.1%	17.2%	18.9%	19.6%	17.7%	17.1%	20.2%	15.2%	18.2%	18.2%	18.3%	18.5%	22.5%	17.5%	15.6%	18.6%	19.1%
Ingredients	31.7%	29.2%	34%	34.6%	31.8%	28.9%	33.3%	29.5%	31.7%	32.5%	32.1%	33%	33.5%	32%	28.7%	32.3%	33.5%
Nutritional values	20.7%	18.5%	22.8%	24.3%	19.5%	19.1%	22%	18.9%	20.8%	21.1%	21.2%	21.2%	24.5%	20.2%	18.9%	21.2%	21.6%
Animal fed with GMO free feed	17%	16.5%	17.4%	17.5%	17.7%	15.6%	17.7%	16%	17.1%	17.3%	18.1%	17.2%	19.8%	16.8%	14.9%	17.1%	18.6%
Made from combined meat pieces	12%	11.7%	12.3%	12.7%	11.2%	12.4%	12.8%	10.9%	12.1%	12.4%	12.5%	12.6%	15.7%	12.2%	7.5%	12.3%	13%
None of these	4.7%	5.6%	3.9%	5.7%	3.9%	4.8%	5.1%	4.1%	4.6%	4.5%	3.7%	4.6%	5.8%	4.1%	6%	4.8%	4.1%
I NEVER buy the following types of fresh meat or meat products	1.8%	1.8%	1.8%	2.1%	1.8%	1.7%	1.8%	1.9%	1.8%	1.7%	1.3%	1.8%	2.1%	1.2%	3.9%	1.7%	1.8%

6.5.3 Results by information-seeking sub-groups of consumers

When buying **pre-packaged meat**, consumers are more likely to look at **different aspects**, such as: the use by or best before date (66% compared with 38% for non-packaged meat), the price (60% compared with 57%), the ingredients (30% compared with 17%), nutritional values (19% compared with 12%), nutrition claims (16% compared with 11%) and combined meat pieces information (11% compared with 7%).

When comparing information sources (which are described more in detail in the chapter on opportunity) and aspects consumers look for, **the average number of aspects looked at increases with the number of information sources used**. There is a large difference between the two ends of the scale: consumers who use one information source tend to look for 2.8 aspects on average, while consumers who use 12 information sources tend to look for 10.1 aspects on average.

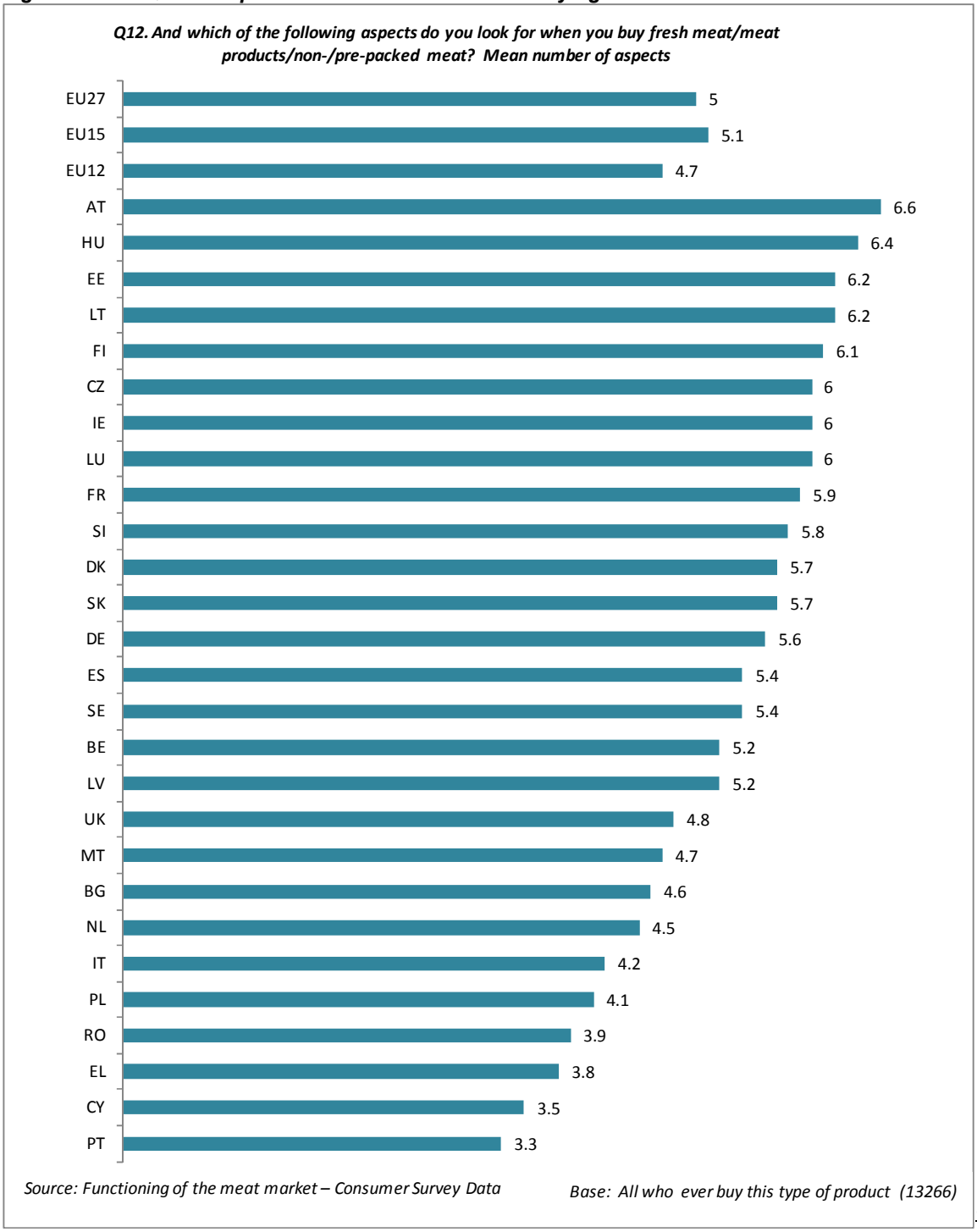
Looking at **knowledge of labelling** (which is described more in detail in the chapter the chapter on ability), 4% of consumers identified the meaning of the Protected Designation of Origin logo, but this proportion is 9% among consumers who look for religious slaughter certifications and 8% among consumers who look for environment or climate certifications. 36% of consumers correctly interpreted the meaning of a best before date overall, but this proportion is 43% among consumers who look for organic certifications and 40% among consumers who look for origin or environment/climate certifications.

Overall, 23% of consumers understood the meaning of a low-fat label, but this proportion is 28% among consumers who look for organic certifications and 27% among consumers who look for animal welfare certifications.

Consumers who say they **would like to buy specific meat types** (such as organic or animal welfare certified meat - results are described more in detail in the chapter on intention and behaviour) **more often are more likely than others to say they look for related information items**. For instance, consumers who would like to buy organic meat more often are more likely to say they look for organic certifications. Similarly, consumers who have bought a specific meat type in the past month are more likely than others to look for the related information items. For instance, consumers who have bought religious slaughter meat in the past month are more likely to say they look for religious slaughter certifications when purchasing meat.

Figure 14. shows the **average number of aspects consumers look at** when purchasing meat. **EU consumers look for 5 aspects on average**. This figure is 5.1 in the EU15 and 4.7 in the EU12. Portuguese (3.3) and Cypriot (3.5) consumers look for the lowest number of aspects on average, while Austrian (6.6) and Hungarian (6.4) consumers look for the highest number of items. In countries with low averages, consumers tend to focus on key items: price, use by date and to a lesser extent country of origin. In countries with higher averages, consumers tend to look more for information on specific meat types or nutrition, such as origin or organic certifications, nutritional claims or ingredients.

Figure 14. Q12. Aspects looked at when buying meat – Mean number of aspects



[18]

[18] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?

Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?

Q12C. And when you buy non-packaged meat products?

Figure 15. shows the spread of answers. 78% of consumers mention 6 items or fewer. The remaining 22% say they normally look for 7 to 15 information items.

Figure 15. Spread of answers

Number of items looked at	Percentage of respondents
0	7%
1	8%
2	13%
3	16%
4	14%
5	11%
6	8%
7	6%
8	3%
9	2%
10	2%
11	2%
12	1%
13	1%
14	2%
15	3%

As shown on Figure 16., the **sub-group of consumers looking for 7 items or more** has a higher awareness of different meat types, such as animal welfare or origin certified meat. They are also more likely to have purchased one of these meat types in the past month.

Q12D. And when you buy pre-packaged meat products?

Figure 16. Link between the number of aspects looked for and consumer awareness and purchases of different meat types

		Consumers who look for 7 items or more	Consumers who look for 6 items or fewer	Difference
Awareness	Animal welfare certified	63%	39%	24%
	Origin certified	72%	50%	23%
	Organic	66%	44%	23%
	Meat with nutrition claims on better nutritional values	51%	30%	21%
	Meat for which the country of origin is specified	88%	73%	16%
	Environment/climate certified	27%	11%	15%
	Slaughtered according to religious rites (for example Halal or Kosher)	32%	23%	8%
	None of these	2%	13%	-11%
Purchase	Origin certified	52%	27%	25%
	Animal welfare certified	37%	18%	19%
	Meat for which the country of origin is specified	74%	56%	17%
	Organic	29%	12%	17%
	Meat with nutrition claims on better nutritional values	28%	12%	16%
	Environment/climate certified	9%	3%	6%
	Slaughtered according to religious rites (for example Halal or Kosher)	7%	4%	3%
	None of these	5%	13%	-8%

Consumers who look for 7 items or more are also more likely than other consumers to say they want to buy different meat types more often. Besides, they are less likely to say they want to buy meat less often.

They are less likely to answer 'Don't know' at the knowledge questions and slightly more likely to provide the correct answers. When looking at their priorities when purchasing meat, freshness comes top, as for the overall ranking. However, 'produced in my country' and GM-free feed appear in second and third position, which is higher than in the overall ranking.

6.5.4 Grouping of information aspects

A Principal component analysis (PCA) was run on question 12[19] of the consumer survey. The aim is to identify components that can group question 12 items together, as per the analysis conducted on question 15 earlier in the analysis.

Four components were identified in the PCA[20] and are presented on Figure 17.. As explained before these components are actually a grouping of items with a score of > 0.500 or of <-0.500 on the component (excluding all the items that show cross loadings: high scores on more than one component) Together, they explain 60% of the variance which means that we reduced 16 items to 4 usable concepts keeping 60 per cent of the variance of the 100 per cent that the less user friendly 16 items explained.

The first component (column 1 below) includes information items linked to **specific meat types**, such as organic and animal welfare certifications (.795;.759;.690;.684). The second component (column 2) brings together information items linked to **nutrition** (.730; .716; 617). The third component (column 3) groups together items related to the **place of production** (.758, .728). The fourth component (column 4) is related to **price** (.842; .593).

This means that consumers' information-seeking behaviour is driven by four aspects, namely interest in specific meat types, nutrition, origin and price.

[19] Q12A. Which of the following aspects do you look for when you buy non-packaged fresh meat?

Q12B. And which of the following aspects do you look for when you buy pre-packaged fresh meat?

Q12C. And when you buy non-packaged meat products?

Q12D. And when you buy pre-packaged meat products?

20 Please note this question was assessed per row and not separately for each column.

Figure 17. Aspects looked at when buying non- and pre-packaged meat

	Specific types	Nutrition	Production	Price
Environment/climate certified	0.795	0.259	0.097	0.055
Slaughtered according to religious rites	0.759	0.195	0.009	0.116
Organic	0.690	0.226	0.218	0.003
Animal welfare certified	0.684	0.155	0.301	0.011
Animal fed with GMO free feed	0.554	0.367	0.247	0.024
Origin certified	0.417	0.390	0.397	0.056
Ingredients	0.165	0.730	0.205	0.157
Nutritional values	0.325	0.716	0.086	0.102
Made from combined meat pieces	0.257	0.617	0.109	0.085
Meat with nutrition claims	0.495	0.551	0.034	0.095
The country of origin	0.191	0.122	0.758	0.090
Producer	0.218	0.109	0.728	0.084
Price	0.202	-0.028	-0.121	0.842
Price per kilogram	-0.049	0.259	0.244	0.593
Use by/best before date	-0.024	0.201	0.429	0.541

7 Opportunity

CHAPTER SUMMARY - OPPORTUNITY

Definition

- **Opportunity**: consumers' environment, including the retailer, labelling and the availability and accessibility of products.

Main findings

- The **main sources of information** for meat purchases are **labels on the packaging** (mentioned by 68% of respondents) and **labels on the shelf/counter** (59%), followed by **staff at the retailer** (56%).
- **EU12** consumers are more likely than EU15 consumers to use **staff at the retailer** (63% compared with 54%) or **family and friends** (44% compared with 27%) as sources. **EU15** consumers are more likely than EU12 consumers to get information from **consumer organisations** (16% compared with 7%) and **NGOs**[21] (13% compared with 6%), or from the **Internet** (14% compared with 9%).
- **Consumers use 4 information sources on average**, with the following groups using slightly more sources: younger consumers, urban consumers, men and high frequency consumers.
- **55-75 year-old** consumers (60%) and **rural** consumers (59%) are more likely to use staff at the retailer as a source than younger respondents (53%) and urban respondents (54%).
- Information sources can be grouped in three categories: labels, staff at the retailer, and media and other sources (including consumer organisations and NGOs).
- Looking at the availability of information in the mystery shopping audit, the aspects consumers are most likely to look at are also most likely to be available. **The use by/best before date was available on 90% of products assessed, the price per unit on 92% and the country of origin on 86%.** These labelling items were overall less likely to be available in butcher's shops.
- Other information items were less likely to be available, such as origin certifications (40% of products), nutritional value information (44%), organic information (15%), animal welfare certifications (20%), nutritional or health claims (18%). However, consumers are also less likely to look at these items when purchasing meat.
- **39%** of consumers **do not use their preferred retailer as their main retailer** and say they this is because of **high prices** (36%), being able to **do all their shopping in one go** at their main retailer (32%) or because their preferred retailer is **too far away** (31%). For **61%** of

[21] Non-governmental organisations

consumers, their **main retailer is also their preferred retailer**. The main reasons for this choice are the **choice of products** (58%), **prices** (56%) and **access** (56%).

- **40% of consumers use a supermarket as their main retailer, followed by butchers (25%) and hypermarkets (18%).** Smaller proportions mention grocery or convenience stores (7%), discount stores (6%), farms (2%) or markets (2%). There are important differences across countries. For instance, 40% of Swedish respondents prefer hypermarkets, compared with none of the Maltese respondents. Similarly, 73% of consumers in Malta and in Greece prefer butchers, while these figures are only 9% in Lithuania and 12% in Sweden.
- Consumers are more likely to say a supermarket or hypermarket is their main retailer than their preferred retailer, with respectively 40% and 18% indicating them as main retailer and 28% and 13% indicating them as preferred retailer. The opposite trend can be seen for butchers and farms, with respectively 36% and 7% saying they are their preferred retailers, compared with 25% and 2% mentioning them as main retailer.
- Most consumers use a range of retailers for their meat purchases aside from their main retailer, with 94% using a supermarket, a hypermarket, a grocery/convenience stores or a discount store, and 66% using a butcher's shop, farm or market.

The overall availability of information items matches the items consumers look at the most, but there is room for improvement in some categories. Many consumers do not use their preferred retailer as their main retailer, but most consumers use a range of retailers for their meat purchases and seem to select the best retailer in terms of price, choice and convenience.

Research questions:

Do consumers have a sufficient choice of alternative retailers and sales channels? Do consumers throughout the single market have access to the same breadth of choice of retailers? Do consumers have a sufficient choice of products on the meat market as a whole..., including non 'regular products such as those marketed as sustainable, or as 'quality guaranteed' oar as 'dietary'? Do consumers throughout the single market have the same access to the same level of choice of products? Do consumers have sufficient access to meat origination from outside the EU? Do consumers have sufficient, clearly understandable and trustworthy information about safety/quality/health/sustainability/animal welfare/origin of meat? + Most important sources of information

Opportunity refers to the consumer's environment and is closely linked to the structure of the meat market in terms of choice of retailers and products, and in terms of the availability of relevant information to consumers in a purchase situation. This chapter first addresses consumer information and information channels, then the availability of labelling in the mystery shopping audit, and finally the retail channels used by consumers.

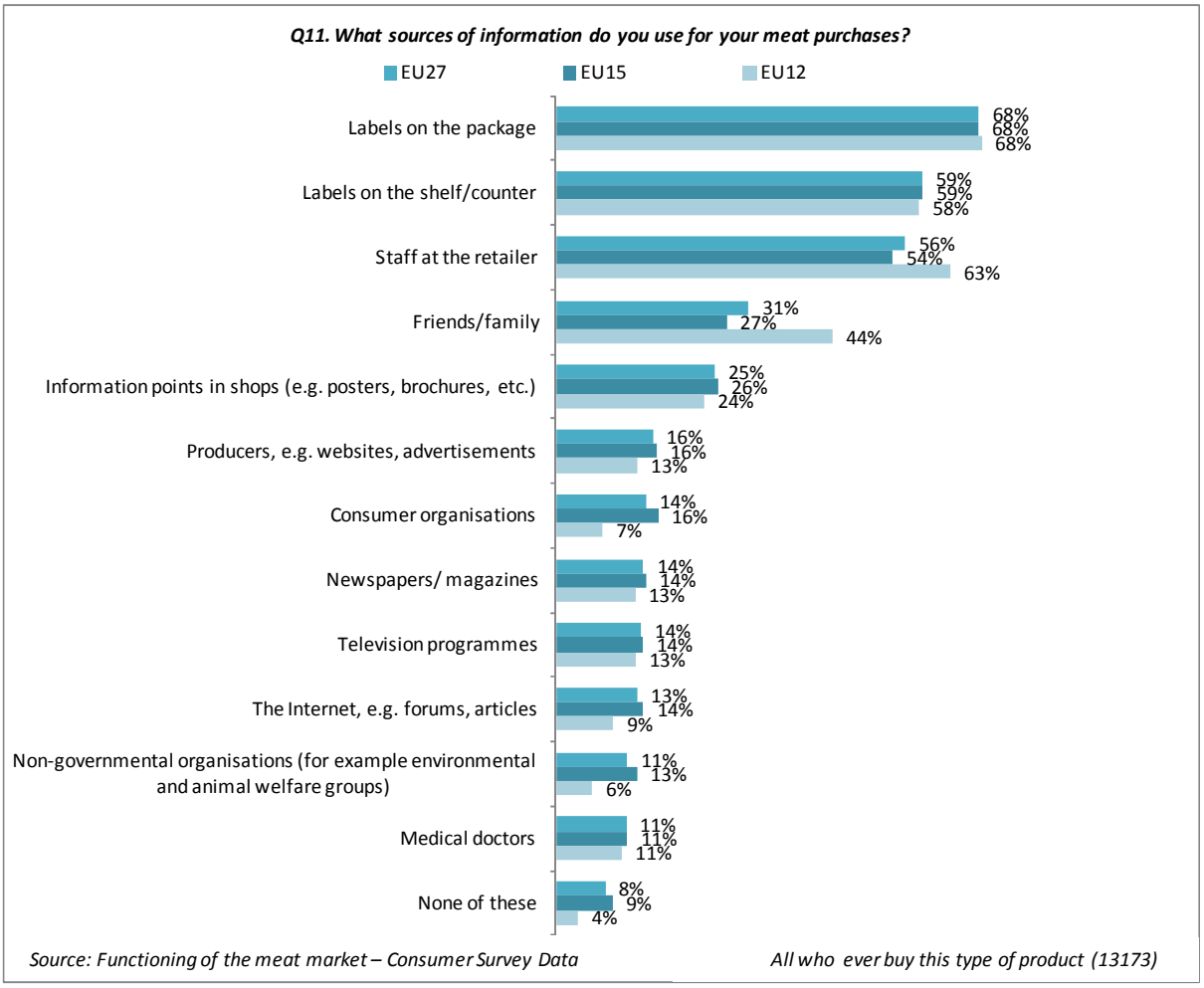
7.1 Information sources used by consumers

7.1.1 Overall results

We will now look at the ways consumers get information when they purchase meat. The consumer survey shows that EU consumers use a range of information sources for their meat purchases (Figure 18.)[22]. The top three mentions overall are **labels on the package** (68%), **labels on the shelf or counter** (59%) and **staff at the retailer** (56%). Consumers in EU12 are more likely than EU15 consumers to use staff at the retailer (63% compared with 54%) and friends or family (44% compared with 27%). EU15 consumers are more likely than EU12 consumers to get information from consumer organisations (16% compared with 7%) and NGOs[23] (13% compared with 6%), or from the Internet (14% compared with 9%). Consumers who use supermarkets or similar retail stores as their main retailer are significantly more likely to use labels on the package as a source of information than consumers who mainly shop at butchers, farms or markets: 70% of the first group use this information sources, compared with 66% for the second group. In contrast, consumers who mainly shop at butchers, markets or farms are significantly more likely to use staff at the retailer (63%) or friends and family (34%) as information sources. These figures are respectively 55% and 31% for the other group.

[22] Q11.What sources of information do you use for your meat purchases?
[23] Non-governmental organisations

Figure 18. Q11. Sources of information used for meat purchases



Consumers use sources of information differently depending on the type of meat. 15% of consumers do not use any of the sources above when buying non-packaged meat, compared with 10% when buying pre-packaged meat[24]. Consumers buying non-packaged meat are more likely to get information from labels on the shelf or counter (47% compared with 39% for pre-packaged meat), staff at the retailer (55% compared with 21%) and friends or family (26% compared with 22%).[25]

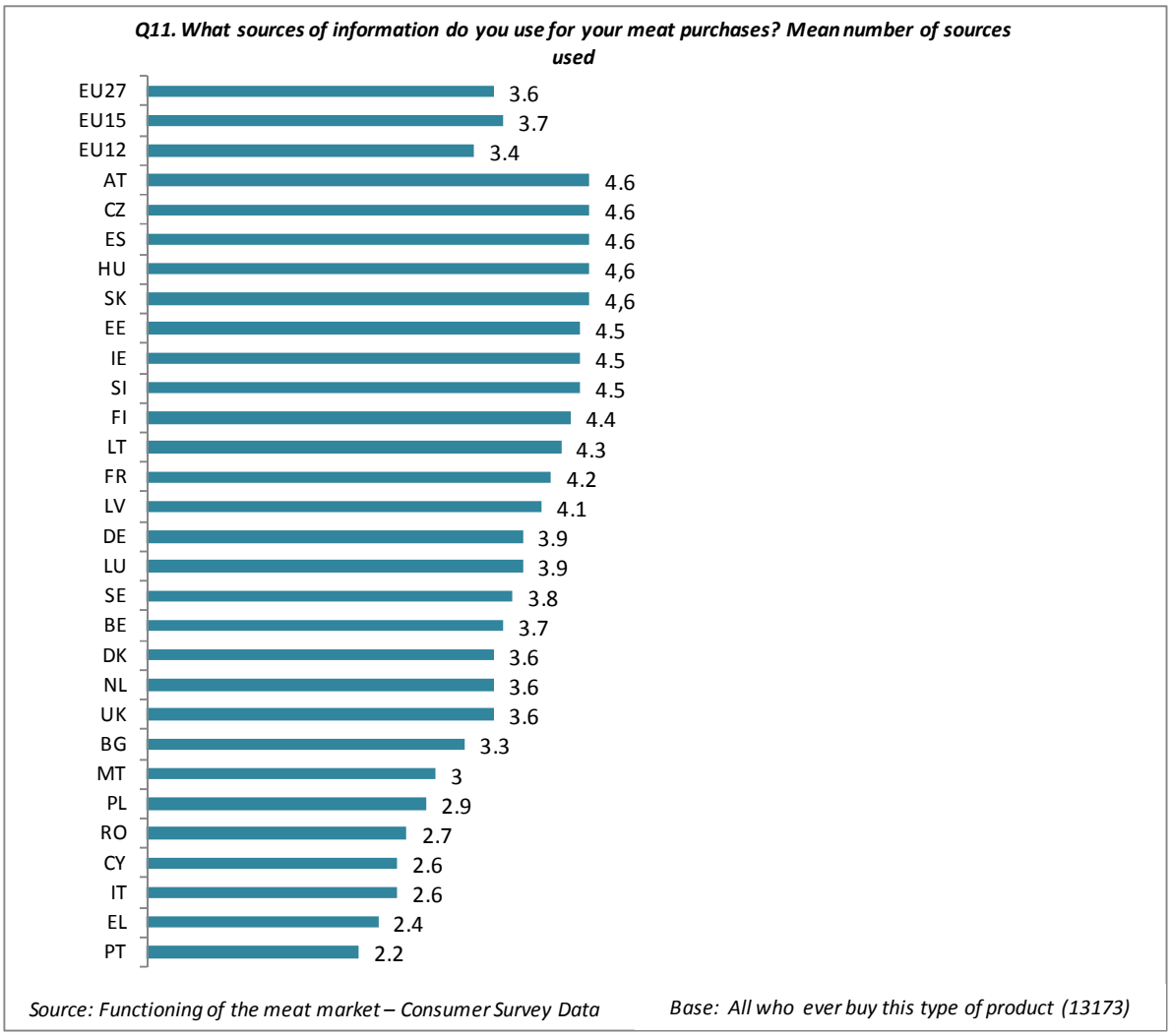
68% of consumers use labels on the package, with Czech and Finnish consumers (both 82%) the most likely to do so. Greek and Portuguese (both 42%) are least likely to say they use this information source. Bulgarian consumers (79% compared with 59% overall) are most likely to use labels on the shelf, while Maltese (36%) and Dutch (37%) consumers are least likely to use this source. Dutch consumers (30%) are least likely to use staff at the retailer, compared with 56% overall. In contrast, consumers in Greece (77%), Cyprus (75%), Portugal and Poland (both 74%) are most likely to use this information source. Regarding friends and family,

[24] Please see details in the consumer survey's technical report.
[25] Please note that 'Labels on the package' was not a possible answer for non-packaged meat purchases.

Portuguese (10%) and Italian (18%) consumers are least likely to use this source, while consumers in Estonia (56%), Lithuania and Latvia (both 54%) are most likely to do so.

As shown on Figure 19., **EU consumers use on average fewer than four different sources of information (3.6)**. The average number of sources used is slightly higher in the EU15 countries than in the EU12 countries. Relatively large variations can be observed between the Member States, the average number of sources used ranging from 4.6 in Austria, the Czech Republic, Spain, Hungary and Slovakia to 2.2 sources used in Portugal.

Figure 19. Mean number of sources of information used for meat purchases



7.1.2 Results by socio-demographic category

Significant differences between the different socio-demographic categories shown on Figure 20. are described below.

Respondents **aged 35-54** (69.9%) are more likely to use the **labels on the packages** as a source of information for meat purchases, in comparison with respondents aged 18-34 (66.7%) and respondents aged 55-75 (66.2%). Medium frequency consumers (69.7%) are also more likely to look at the labels on the package, in comparison with high (66.1%) and low (61.9%) frequency consumers.

Respondents **aged 55-75** (60.0%) are more likely to use **staff at the retailer** as a source of information. This is much higher than for respondents aged 18-34 (52.8%) and respondents aged 35-54 (55.0%). **Rural consumers** (58.6%) are more likely to use this information source as well, in comparison with urban consumers (54.0%).

Respondents **aged 18-34** (29.1%) are more likely to use the **information points in shops** as a source, in comparison with respondents aged 35-54 (24.7%) and respondents aged 55-75 (23.1%). 26.7% of consumers in urban areas use this information source as well. This is more than consumers living in rural areas (23.7%). High frequency consumers (29.0%) are also more likely to use this source than medium (25.4%) and low (21.8%) frequency consumers.

Men (13.9%) use the **Internet** more than women (12.1%). This is also the case for consumers **aged 18-34** (19.1%), in comparison with consumers aged 35-54 (12.5%) and consumers aged 55-75 (8.2%). **Urban** consumers (14.7%) use the **Internet** more than rural consumers (10.7%). High frequent consumers are also more likely to use this source than medium (12.4%) and low (12.0%) frequency consumers.

Men (16.7%) are more likely to use **producers** as a source of information than women (14.3%). The **age group 18 to 34** (21.1%) is more likely to use this source than respondents aged 35-54 (14.3%) and 55-75 (12.0%). **Urban** consumers (16.7%) are also more likely to use **producers** as a source than rural consumers (13.8%).

Men (15.8%) are more likely to use **consumer organisations** than women (13.0%). Respondents **aged 18-34** (17.8%) are also more likely to use this source than respondents aged 35-54 (13.5%) and 55-75 (12.5%). **Urban** consumers (15.7%) are more likely to use consumer organisations than rural consumers (12.6%).

Consumers **aged 18-34** (15.4%) are more likely to use **non-governmental organisations** as a source of information, in comparison with consumers aged 35-54 (11.2%) and 55-75 (7.9%). **Urban** consumers are also more likely to use this source (12.3%), in comparison with rural consumers (10.1%).

Respondents **aged 18-34** (39.4%) are more likely to use **friends and family** as an information source for meat purchases in comparison to the other two age groups (35-54 with 30.2% and 55-75 with 24.2%). **High frequency consumers** (36.5%) are also more likely to use friends and family as a source of information, in comparison with medium (30.6%) and low (26.6%) frequency consumers.

Respondents **aged 18-34** (17.5%) are more likely to use **newspapers and magazines** as a source of information for buying meat than people aged 35-54 (13.2%) and 55-75 (11.8%). Consumers living in an **urban** area (15.2%) are more likely to use this source in comparison with rural consumers (12.4%). **High frequency consumers** (18.7%) are also more likely to use newspapers and magazines as a source of information, in comparison with medium (13.0%) and low (13.3%) frequency consumers.

Consumers **aged 18-34** (19.0%) are more likely to use **television programs** as a source of information when buying meat than people aged 35-54 (12.9%) and 55-75 (9.8%). **High frequency consumers** (17.6%) are

also more likely to use this information source, in comparison with medium (12.7%) and low (13.2%) frequency consumers.

Respondents **aged 18-34** (14.7%) are more likely to use **medical doctors** as a source of information when buying meat than people aged 35-54 (10.2%) and 55-75 (9.5%).

Overall, younger consumers, urban consumers, men and high frequency consumers are more likely than others to use a range of sources. The main exception is staff at the retailer, which is mentioned more often by older consumers and rural consumers.

When comparing the sources used with consumers' knowledge of labelling, there are only limited differences for the use by date and fat content questions. However, there is a small difference in awareness of the Protected Designation of Origin logo: 4% of consumers overall selected the correct meaning of the logo, but this figure is 9% among consumers who say they use the Internet as an information source and 8% among consumers who use consumer organisations or NGOs[26] as sources. As for the average number of sources used, it is not higher among respondents who picked the correct answers. However, respondents who answered 'I do not know' tend to use fewer sources than other consumers.

[26] Non-governmental organisations

Figure 20. Q11. What sources of information do you use for meat purchases?

Q11. What sources of information do you use for your meat purchases?		GENDER		AGE			AREA		EATING FREQUENCY		
Base: Those respondents who have ever bought the type of meat/meat products	**EU27**	**Male**	**Female**	**18-34**	**35-54**	**55-75**	**URBAN**	**RURAL**	**High**	**Middle**	**Low**
Basesize	**13173**	**6140**	**7033**	**3852**	**5408**	**3913**	**7403**	**5770**	**2564**	**8653**	**1956**
Labels on the package	*67.8%*	*67.1%*	*68.5%*	*66.7%*	*69.9%*	*66.2%*	*68.4%*	*67.1%*	*66.1%*	*69.7%*	*61.9%*
Labels on the shelf/counter	*58.7%*	*58.9%*	*58.5%*	*60.9%*	*58.3%*	*57.3%*	*59.3%*	*57.9%*	*58.5%*	*59%*	*57.8%*
Staff at the retailer	*56%*	*56.8%*	*55.2%*	*52.8%*	*55%*	*60%*	*54%*	*58.6%*	*58.3%*	*55.6%*	*55%*
Information points in shops (e.g. posters. brochures. etc.)	*25.4%*	*25.5%*	*25.4%*	*29.1%*	*24.7%*	*23.1%*	*26.7%*	*23.7%*	*29%*	*25.4%*	*21.8%*
The Internet. e.g. forums. articles	*13%*	*13.9%*	*12.1%*	*19.1%*	*12.5%*	*8.2%*	*14.7%*	*10.7%*	*16.4%*	*12.4%*	*12%*
Producers. e.g. websites. advertisements	*15.5%*	*16.7%*	*14.3%*	*21.1%*	*14.3%*	*12%*	*16.7%*	*13.8%*	*18%*	*14.8%*	*15.6%*
Consumer organisations	*14.4%*	*15.8%*	*13%*	*17.8%*	*13.5%*	*12.5%*	*15.7%*	*12.6%*	*17.7%*	*13.3%*	*15.5%*
Non-governmental organisations (for example environmental and animal welfare groups)	*11.4%*	*11.9%*	*10.9%*	*15.4%*	*11.2%*	*7.9%*	*12.3%*	*10.1%*	*13.6%*	*10.7%*	*11.6%*
Friends/family	*30.9%*	*29.9%*	*31.9%*	*39.4%*	*30.2%*	*24.2%*	*32%*	*29.5%*	*36.5%*	*30.6%*	*26.6%*
Newspapers/ magazines	*14%*	*14.5%*	*13.5%*	*17.5%*	*13.2%*	*11.8%*	*15.2%*	*12.4%*	*18.7%*	*13%*	*13.3%*
Television programmes	*13.6%*	*14.5%*	*12.8%*	*19%*	*12.9%*	*9.8%*	*14.3%*	*12.7%*	*17.6%*	*12.7%*	*13.2%*
Medical doctors	*11.2%*	*11.9%*	*10.6%*	*14.7%*	*10.2%*	*9.5%*	*11.7%*	*10.6%*	*13.6%*	*10.7%*	*11.2%*
None of these	*7.8%*	*8.2%*	*7.5%*	*7%*	*8%*	*8.3%*	*8%*	*7.6%*	*8.3%*	*7.2%*	*9.7%*
I NEVER buy the following types of fresh meat or meat products	*2.5%*	*2.9%*	*2.1%*	*2.8%*	*2.5%*	*2.3%*	*2.6%*	*2.4%*	*2.3%*	*1.9%*	*5%*

7.1.3 Grouping of information sources used by consumers

We used principal component analysis (PCA) to test our hypotheses about opportunity. PCA converts a set of observations of possibly correlated variables into a set of values of uncorrelated components. In other terms, the PCA is a way to 'reduce' a large number of questions to a more limited number of components without losing information in the process as explained before in the introduction section.

A PCA was run on the results of question 11 of the consumer survey.[27] The purpose was to group together the different information sources used by consumers and to find usage patterns. Figure 21. shows the results of this analysis.

The first component (column Media) groups items related to a wide variety of **media and information sources outside retailers**: newspapers, TV, the Internet, consumer organisations, NGOs, [28] etc. (all scores above (-).500 in column media).

A second component (column labels) groups together all **labelling items** (labels on packaging: .825; labels on shelf and counter .724).

A third component (column Personal contact) includes items linked to **personal contact**: staff at the retailer (.928).

[27] Q11. What sources of information do you use for your meat purchases?
[28] Non-governmental organisations

Figure 21. What sources of information do you use for your meat purchases?

	Media	Labels	Personal contact
Q11_8 Non-governmental organisations	0.829	0.061	0.072
Q11_5 The Internet. e0.g0. forums. articles	0.815	0.067	0.087
Q11_11 Television programmes	0.793	0.079	0.121
Q11_7 Consumer organisations	0.792	0.070	0.088
Q11_10 Newspapers/ magazines	0.790	0.062	0.116
Q11_12 Medical doctors	0.766	0.035	0.179
Q11_6 Producers. e0.g0. websites. advertisements	0.755	0.068	0.109
Q11_4 Information points in shops	0.551	0.240	0.262
Q11_1 Labels on the package	-0.034	0.825	0.036
Q11_2 Labels on the shelf/counter	0.195	0.724	0.099
Q11_3 Staff at the retailer	0.090	0.097	0.928

In practice, this means that consumers who tend to use one type of media as an information source also tend to use the other types of media highlighted above. Similarly, consumers who use one type of labelling tend to use the other.

When comparing answers at questions 11 and 12, consumers who use media (as defined in the principal component analysis above) as sources of information stand out. They are more likely than others to look for information items other than price and the use by date. The average number of items they look for is also higher than for other consumers.

7.2 Availability of information in the mystery shopping audit

As seen above, information is a crucial aspect of opportunity and labels are the main channel through which consumers access information when purchasing meat. Mystery shoppers conducted a thorough audit of the information available for meat and meat products.

The reader is reminded that these results cover the information regarding those products that the mystery shoppers assessed, not the general availability of labels on all products. Each mystery shopper assessed four meat categories per visit: Minced Beef, Pork Sausages, Whole Chicken and Pork Cutlets. Within each category, they assessed the availability of a range of meat types, in the following order of priority: 1. Organic 2. Quality certified 3. Regular/basic 4. Animal welfare certified 5. Religious slaughter.

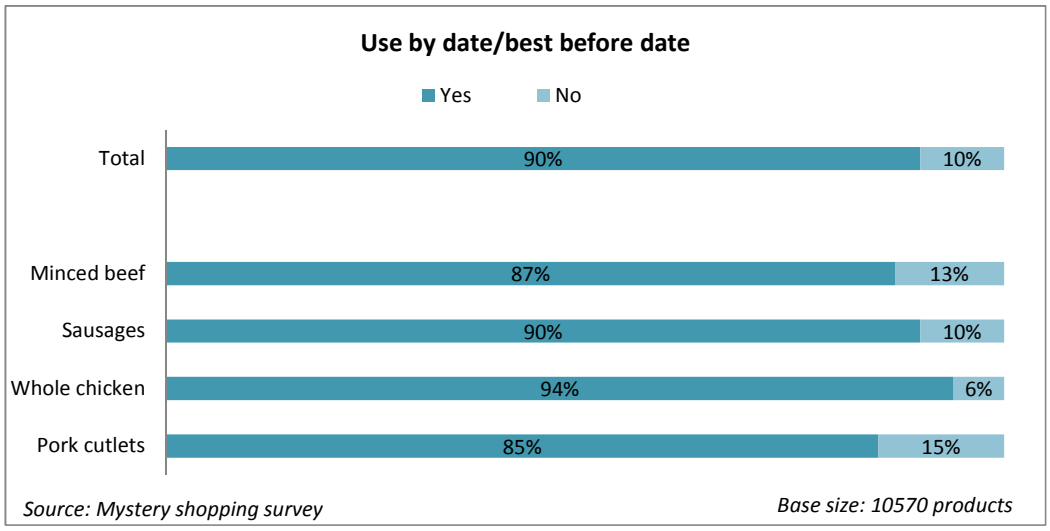
Mystery shoppers were instructed to collect information based on product labels, shelf labels or from staff at the retailer. In **82% of cases, at least some information items were collected from the product labels. Shelf labels were used for 48% of products and shoppers asked staff for information in 13% of cases**.

In 6% of cases, information was available neither from the product nor the shelf label and had to be requested from the staff. Mystery shopping auditors took on average 20 minutes to collect information in the shop.

7.2.1 Use by date/best before date

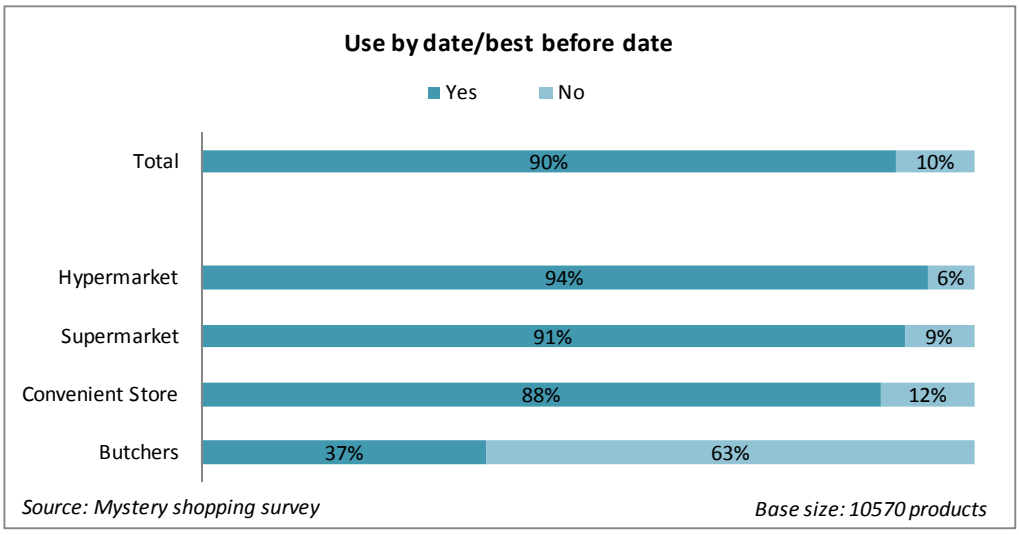
68% of EU consumers say that they look at use by/best before date when they purchase meat. **Generally the information is readily available for consumers with 90% of the products assessed** showing this information. Yet some variation is observed between the meat categories, as shown on Figure 22.: 94% of whole chickens assessed had the date label whereas this was the case for 85% of pork cutlets.

Figure 22. Availability of the use by/best before date – by meat category



Large retail outlets are more likely to provide accurate labelling regarding use by/best before date whereas this information is considerably harder to find at butchers (Figure 23.). This could be linked to different use by/before date regulations applying to butchers, as Directive 2000/13/EC does not apply as such to non-prepackaged foodstuffs and foodstuffs packaged on the sales premises. Among products for which a use by/best before date was available in butchers, mystery shoppers exclusively used a label on the product in 23% of cases, used a shelf label but did not ask the staff in 29% of cases and asked the staff for information in all other cases.

Figure 23. Availability of the use by/best before date – by purchase channel



Use by date availability varies by country[29]. Assessments conducted in Finland showed greater consistency with all products assessed across all four categories displaying a use by date. Sweden and the Netherlands also had a higher availability of use by date labelling across categories.

All **minced beef** products assessed in Finland and Sweden displayed a use by date, while this was the case for only 25% of minced beef in Cyprus.

Pork sausage products had use by dates on 90% of all products assessed across the EU27. Finland, Poland and Sweden had use by dates on all of the products assessed. Lithuania had the lowest proportion of pork sausages with use by dates – 65%.

Whole chickens had the highest levels of use by date information displayed across all meat categories, with 94%. Finland and the Netherlands showed a use by date on all chickens assessed, while Portugal had the lowest proportion – 84%.

All **pork cutlets** assessed in Finland and 99% of cutlets in the Netherlands displayed a use by date. Cyprus had the lowest proportion of products displaying a use by date – 38%. Base sizes are low, but auditors who used the product label were slightly more likely to find this information than auditors who used the shelf label or asked the staff.

More detailed country results are presented in the technical report from the mystery shopping survey.

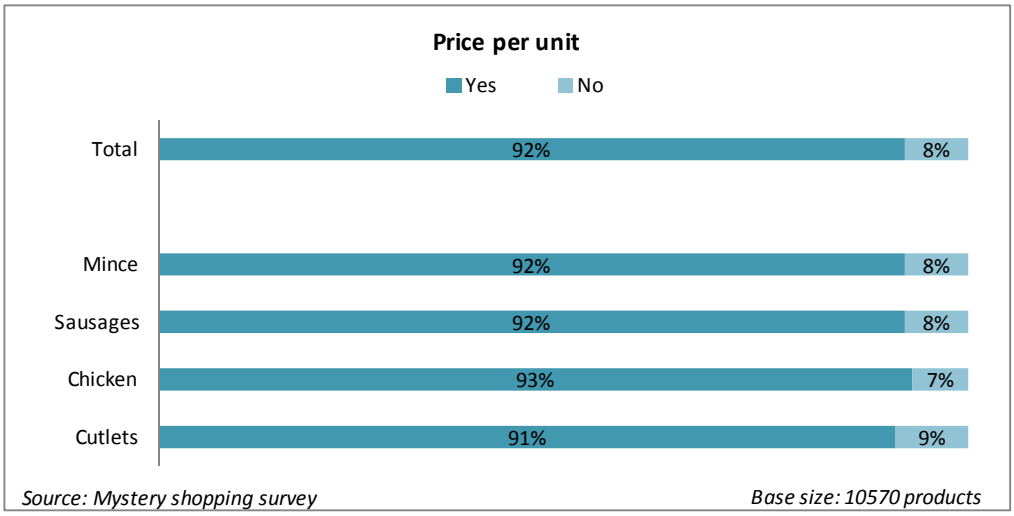
7.2.2 Price per unit

67% of EU consumers indicate they look at the price per unit information while it was found to be **available on 92% of the products assessed** by the mystery shoppers (Figure 24.). There is no large variation between the meat categories, for each of the four meat categories assessed over 90% of the products assessed had

[29] Please see details in the consumer survey's technical report.

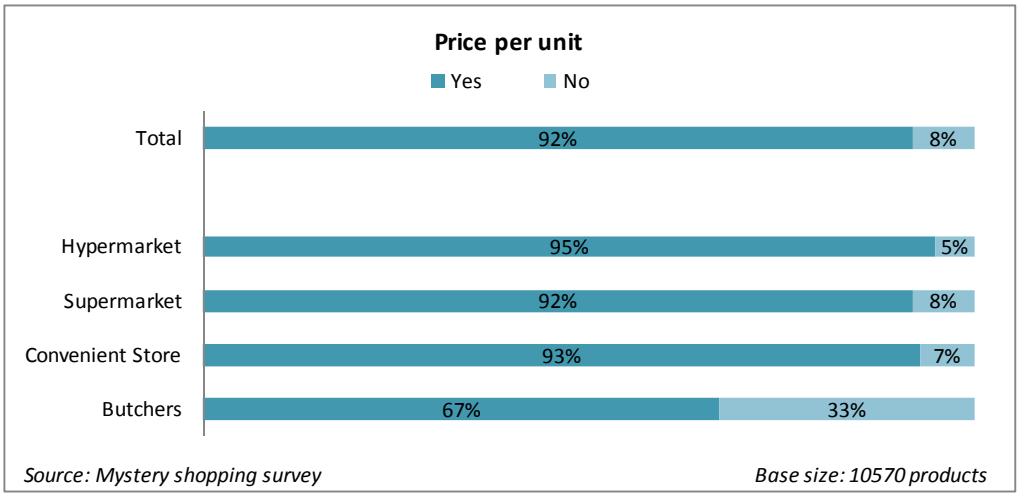
information regarding price per unit. In general, this piece of information is mandatory on food products sold in the EU.

Figure 24. Availability of price per unit – by meat category



However, there is a clear indication that in the butchers fewer products are appropriately labelled in this aspect (Figure 25.). While most products bear the price per unit information in the hypermarkets, supermarkets and convenience stores, only 67% of the products at butchers had this information. This can be linked to the fact that Directive 98/6/EC includes a derogation for certain small retail businesses. Several member states have used this possibility to exempt small shops, such as butchers, from this regulation (Snijders, van Lin & Hessels, 2004).

Figure 25. Availability of price per unit – by purchase channel



Lithuania (99.6%), Romania, Latvia and Bulgaria (all 99%) have the highest proportions of price per unit information available. Sweden (68%) and the Czech Republic (79%) have the lowest proportions.[30]

Taking into account only cases where mystery shoppers collected information from product labels (and not from shelf labels or from the seller's staff) in hypermarkets and supermarkets, they could not find information regarding price per unit for 6% of pork sausages, 5% of minced beef, 4% of pork cutlets and 3% of whole chicken.

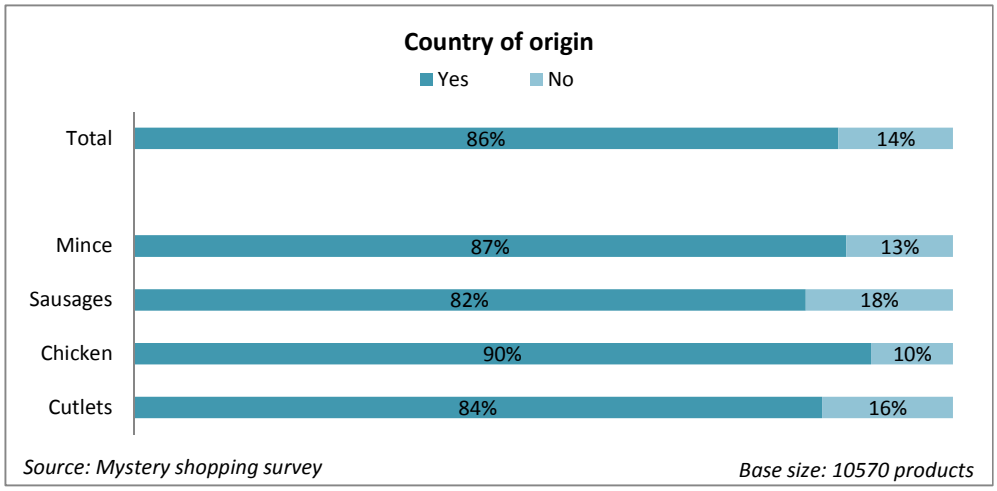
More detailed country results are presented in the technical report from the mystery shopping survey.

7.2.3 Country of origin

Regulation (EC) No 1760/2000 requires country of origin information to be displayed on beef meat. However, this rule does not apply to other meat types, unless they fall within the scope of Directive 2000/13/EC, which requires additional information when consumers may otherwise be misled by a label. Regulation (EU) No 1169/2011 makes country of origin information compulsory for a wider range of meat (pork, lamb, goat and poultry), but will only apply from 2014. Regulation (EC) No 1760/2000 includes a derogation for beef in small retail packages which may apply to small shops in some cases.

48% of EU consumers say they look at the information concerning the country of origin of meat. **This information was available for 86% of the meat and meat products assessed** by the mystery shoppers (Figure 26.). Some differences are observed when it comes to the availability of the information regarding the country of origin. 90% of whole chickens assessed by the mystery shoppers had a label indicating the country of origin while this was the case for 82% of pork sausages.

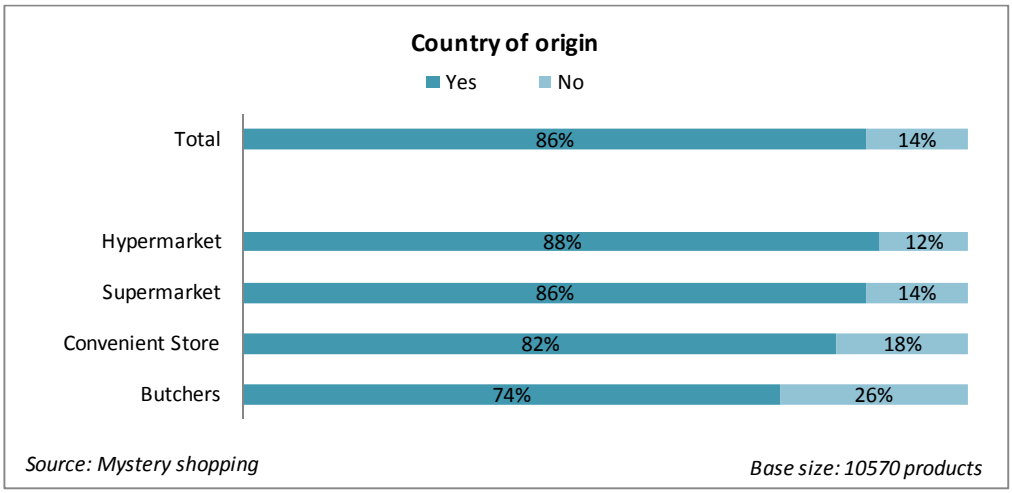
Figure 26. Availability of country of origin – by meat category



[30] Please see details in the mystery shopping survey's technical report.

The availability of the country of origin information is lower in the butchers while hypermarkets and supermarkets are the retail channels most likely to offer this information (Figure 27.).

Figure 27. Availability of country of origin – by purchase channel



Within the **minced beef** category, country of origin labelling was available for 88% of EU15 products and 87% of EU12. Eight countries had a country of origin label on more than 95% of products assessed: Sweden (100%), Greece, Austria, the United Kingdom, Slovenia and Finland (99%), Hungary (98%) and Denmark (97%). The Netherlands had the lowest rate of country of origin labelling – 42%.

Taking into account only cases where mystery shoppers collected information from product labels (and not from shelf labels or from the seller's staff), **they could not find information regarding country of origin for 14% of minced beef sold in hypermarkets and supermarkets**. Regulation (EC) No 1760/2000 specify that for minced beef this information should be available (worded as 'prepared in').

Within the EU15, country of origin information was seen on 81% of **pork sausage** products and within the EU12 on 84% of products. Austria and Poland had a country of origin label on all assessed products. Two countries had a country of origin label available on less than half of products - the Netherlands (37% of pork sausages) and Luxembourg (47%).

Overall, 90% of **whole chicken** products had the country of origin stated – the highest of all four categories assessed. This was the case for 89% of products within the EU15 and 92% in the EU12. Three countries had country of origin labels on all assessed products: Austria, Romania and Sweden. Again, the Netherlands had the lowest proportion of whole chickens with this information: 65%.

Within the **pork cutlet** category, 84% of products had a country of origin label, with 85% in the EU15 and 82% in the EU12. It was shown on 100% of products in Austria and on 99% of products in Finland and Greece. The Netherlands had the lowest proportion of country of origin labelling with 49%.[31]

More detailed country results are presented in the technical report from the mystery shopping survey.

7.2.4 Certifications and other specific information

As mentioned in section 7.2, mystery shoppers were asked to assess particular categories and types of products, with priority for organic, origin certified, regular, animal welfare certified and slaughtered according to religious rites. For these particular types of products that they were asked to assess, the mystery shoppers marked down not only the information which let them classify the product to a particular type (e.g. an organic certificate), but also the availability of other types of information, such as whether a product was also marketed as origin or animal welfare certified or organic (e.g. in case a product was classified by the mystery shopper as origin certified but also had an organic label on it), or whether it displayed information about nutritional values or a nutritional or health claim. On a number of products the mystery shoppers could find more than one of these particular information items, e.g. an environment/climate certification was often present together with an organic label. The availability of these pieces of information is linked to the availability of the type of product. Consequently, the reader is reminded that the figures presented in Figure 28. reflect the availability of specific information and to some extent the availability of the specific product types itself.

Figure 28. Labelling information EU27

Labelling information EU27		
	Consumers look at	Found by mystery shoppers
Origin certified	26%	40%
Animal welfare	22%	20%
Nutritional value information*	21%	44%
Nutritional or health claim	18%	18%
Organic	18%	15%

**Please note the base size for nutritional value information and nutritional or health claims excludes visits to butcher's shops as mystery shoppers were not required to request this information from staff when it was not displayed.*

Just over a quarter of EU consumers say they look at origin certification while purchasing meat. This information was found to be available for 40% of the products that were assessed across the EU. In the second place, around a fifth of EU consumers search for information concerning animal welfare certification or nutritional values. 20% of the products assessed were also animal welfare certified while nutritional values were available for 44% of products. 18% of consumers say that they look at information regarding nutritional or health claim or whether the meat is organic. These pieces of information were available on 18% and 15% of the products assessed respectively.

[31] Please see details in the mystery shopping survey's technical report.

7.2.5 Organic certifications

The proportion of organic labelling is much lower in EU12 than in the EU15 in all categories, although this is linked to the lower availability of organic products in general in these Member States. Italy, the Netherlands and Sweden had the three highest proportions of organic labelling across all meat categories. [32]

Overall, organic labelling was available on 19% of the assessed minced beef products – this figure is higher in the EU15 with 26% and lower in the EU12 with 3%. The average for pork sausages was 12% across the EU27, 16% for the EU15 and 3% for the EU12. Italy had the highest proportion of organic labelling on sausages with 39%. The average proportion of organic labelling for whole chickens was 16% across the EU27 and 20% for the EU15. 7% of whole chickens in the EU12 displayed an organic label, the highest proportion across all four categories. 46% of whole chickens assessed in Italy displayed an organic label. Overall, 12% of pork cutlets displayed an organic label. This was the case for 18% of EU15 products and 2% of EU12 products. The highest proportion was also recorded in Italy with 41%.

Across all meat categories, more organic labelling was displayed on products assessed in supermarkets and hypermarkets than in any other retail channel. Markets/farms had the lowest proportion of products with organic labels.

Organic labelling was recorded on 22% of minced beef products assessed in supermarkets and 19% of products assessed in hypermarkets. This was the case for 4% of products in markets/farms. Organic labelling was displayed on 13% of pork sausage products assessed in supermarkets and 12% in hypermarkets. None of the pork sausages assessed in markets/farms displayed an organic label. 18% of whole chickens in hypermarkets displayed an organic label, followed by 15% in supermarkets. This was the case for 12% of products in butcher's shops and 4% in market/farms. Pork cutlets displayed an organic label in 14% of cases in supermarket and 11% in hypermarkets. None of the pork cutlets assessed in markets/farms displayed an organic label.

As presented in more detail in the technical report from the mystery shopping survey, in some cases specific information items overlapped with each other. For example, 64% of minced beef that displayed an environment/climate certificate[33] also had an organic label. An organic label was also present on 24% of animal welfare certified minced beef. In general, the most frequent combinations of information items were:

- Additional organic label on products marketed with an environment/climate certificate
- Additional organic label on products marketed with an animal welfare certificate

7.2.6 Origin certifications

None of the products from Lithuania or Cyprus, across all meat categories, displayed an origin certificate. [34] Ireland, Germany and the United Kingdom consistently displayed higher proportions of origin certifications than the average. Whole chickens had the highest proportion of origin certification labelling of any of the meat products. EU12 products were less likely to display this information than EU15 products. [35]

41% of minced beef products displayed origin certifications. This was the case for 50% of the EU15 minced beef and 16% of the EU12 minced beef. Ireland displayed an origin certification on 82% of products assessed, while Lithuania and Cyprus (0% in each case) Slovenia, Latvia and Bulgaria had the lowest proportion of this type of labelling (3% in each case). Pork sausages displayed an origin certification in 40% of cases. This

[32] Please see details in the consumer survey's technical report.
[33] Please note the base size for environment/climate certified products is very low.
34 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.
[35] Please see details in the consumer survey's technical report.

proportion was 46% in the EU15 and 26% in the EU12. 66% of pork sausage products assessed in Denmark and the United Kingdom displayed an origin certification label. In contrast, Lithuania and Cyprus had the lowest proportion of this type of labelling on pork sausage products, with 0% each. Within the EU27, 46% of whole chicken products had an origin certification. This label was displayed on 53% of products in the EU15 and 33% in the EU12. 80% of whole chickens assessed in Ireland had an origin certified label visible, followed by Germany (76%) and the United Kingdom (68%). Lithuania and Cyprus displayed the lowest proportion of origin certified labelling – both with 0%. 33% of pork cutlet products assessed in the survey had an origin certified label. This was the case for 42% of products in the EU15 and 16% in the EU12. Lithuania and Cyprus had the lowest proportion of origin certifications – 0% each. Ireland (73%), Germany and the United Kingdom (both 62%) had the highest proportion of products with an origin certified label.

Across all meat categories, supermarkets, hypermarkets and discount stores had higher proportions of products with origin certificates. Origin certified labels were found on 43% of minced beef products assessed in hypermarkets, 42% of products in discount stores and 41% of products in supermarkets. Origin certified labelling was less likely to be displayed in butchers (26%) and markets/farms (20%). 43% of pork sausages assessed in hypermarkets were origin certified, followed by 40% in discount stores and 39% in supermarkets. This was the case for 17% of pork sausages assess in markets/farms. Origin certifications were found on 50% of whole chickens assessed in hypermarkets. In contrast, only 8% of market/farms whole chickens displayed this type of information. 38% of pork cutlet products assessed in discount stores had an origin certified label, while this was the case for 22% of products assessed in convenience stores.

As presented in more detail in the technical report from the mystery shopping survey, in some cases specific information items overlapped with each other. For example, 75% of whole chicken that displayed an environment/climate certificate[36], also had a quality/origin certificate. A quality/origin certificate was also present on 71% of organic chicken and on 58% of animal welfare certified chicken. In general, the most frequent combinations of information items were:

- Additional quality/origin certificate on products marketed with an environment/climate certificate
- Additional quality/origin certificate on products marketed as organic
- Additional quality/origin certificate on products marketed with an animal welfare certificate

7.2.7 Animal welfare certifications

The proportion of rearing standards labelling was higher for whole chickens than for other product categories overall. Products assessed in Italy had one of the highest proportion of rearing standards labelling, while none of the products assessed in Cyprus displayed rearing standards labelling. [37]

Within the EU27, 17% of minced beef products displayed rearing standards labelling. This proportion was 22% for EU15 countries and 3% for EU12 countries. 49% of minced beef products in Italy had rearing standards labels, while none of the products assessed in Lithuania, Bulgaria Slovenia, Malta and Cyprus were labelled for rearing standards. Within the pork sausages category, 14% of the EU27 products had a rearing standards label. This was the case for 19% of products in the EU15 and 3% in the EU12. The highest proportion of rearing standards labelling, in Italy, was 45%, followed by Sweden with 42%. Latvia, Lithuania, Bulgaria, Slovenia, Malta, Czech Republic and Cyprus displayed rearing standards labelling on none of the pork sausages products assessed. 31% of whole chicken products displayed rearing standards labelling, compared with 42% in the EU15 and 12% of EU12 countries. Sweden displayed this information on 62% of products assessed, followed by Italy with 54%. In contrast, none of the whole chickens assessed in Latvia and Cyprus displayed a rearing standards label. Across the EU27, 15% of pork cutlet products had a rearing

[36] Please note the base size for environment/climate certified products is very low.
[37] Please see details in the consumer survey's technical report.

standards label – this proportion was 21% in the EU15 and 2% in the EU12. Italy had this information on 44% of the pork cutlet products assessed. At the other end of the ranking, none of the pork cutlets assessed in Lithuania, Bulgaria, Slovenia, the Czech Republic and Cyprus displayed rearing standards labelling.

Rearing standards labelling was visible on 19% of minced beef products assessed in supermarkets, while this proportion was 11% for convenience stores and 8% for markets/farms. Pork sausage products assessed in supermarkets had the highest proportion of rearing standards labelling (17%), while butchers had the lowest, 6%. Rearing standards labelling was displayed on 35% of whole chicken products assessed in hypermarkets and 32% in supermarkets. At the other end of the ranking, 4% of whole chickens assessed in markets/farms displayed rearing standards labelling. Rearing standards labelling was available on 17% of pork cutlet products assessed in supermarkets. In contrast, 9% of pork cutlets in butchers, 8% in discount stores and 3% in markets/farms displayed such a label.

As presented in more detail in the technical report from the mystery shopping survey, in some cases specific information items overlapped with each other. For example, 88% of pork cutlets that displayed an environment/climate certificate[38], also had a rearing standards information. A rearing standards information was also present on 40% of organic pork cutlets and on 21% of quality/origin certified pork cutlets. In general, the most often combinations of information items were:

- Additional rearing standards information on products marketed with an environment/climate certificate
- Additional rearing standards information on products marketed as organic
- Additional rearing standards information on products marketed with a quality/origin certificate

7.2.8 Nutritional value information

Finland had the highest proportion of products with nutritional value information across the four meat categories. [39]

Nutritional value information was found on 47% of minced beef products across the EU27. 53% of minced beef products in the EU15 included this information on the label, compared with 33% in the EU12. Finland had the highest proportion of minced beef products (86%) with nutritional value information, while Cyprus (0%) and Slovenia had the lowest proportion (4%). Nutritional value information was available on 54% of pork sausage products across the EU27. This was the case for 64% of minced beef products in the EU15 and 31% of EU12 products. 95% of pork sausages in Finland had nutritional value information available, compared with 5% in Lithuania. Nutritional value information was available on 42% of whole chicken products across the EU27. This was the case of 46% of whole chicken products in the EU15 and 34% in the EU12. The highest proportion was in Finland (85%) and the lowest in Cyprus (0%) and Lithuania (1%). Nutritional value information was available on 33% of pork cutlet products across the EU27. 39% of pork cutlet products in the EU15 included this information, compared with 22% in the EU12. Finland had the highest proportion of pork cutlet products (86%) with nutritional value information available, while Romania had the lowest proportion (1%).

Discount stores had the highest proportion of nutritional value labelling across the four meat categories. The proportion of minced beef products displaying nutritional value information is fairly stable across retail channels, with 49% for supermarkets and discount stores and 45% for hypermarkets and convenience stores. The exception is markets/farms, where none of the products assessed included such labelling. The highest proportions of nutritional value labelling on pork sausages were found in discount stores (57%), supermarkets (55%) and hypermarkets (53%). The lowest proportion was found in markets/farms (15%). 50% of whole chicken products assessed in discount stores displayed nutritional value information, while markets/farms

[38] Please note the base size for environment/climate certified products is very low.
[39] Please see details in the consumer survey's technical report.

displayed this information on 10% of products. Discount stores had the highest proportion of nutritional value labelling (46%), while none of the pork cutlets assessed in markets/farms displayed such information.

As presented in more detail in the technical report from the mystery shopping survey, in some cases specific information items overlapped with each other. For example, 73% of pork sausages that displayed an animal welfare certificate, also had a nutritional value information. Nutritional value information was also available on 68% of environment/climate certified[40], on 64% of quality/origin certified and on 63% of organic pork sausages. In general, the most frequent combinations of information items were:

- Additional nutritional value information on products marketed with an animal welfare certificate
- Additional nutritional value information on products marketed with an environment/climate certificate
- Additional nutritional value information on products marketed with a quality/origin certificate
- Additional nutritional value information on products marketed as organic

7.2.9 Nutritional or health claims

Nutritional or health claim labelling was available on 20% of minced beef products across the EU27.[41] 22% of EU15 minced beef products displayed this information, compared with 15% in the EU12. Hungary had the highest proportion of minced beef products with nutritional or health claim labelling (77%), while Lithuania, Slovenia, Luxembourg and Cyprus had the lowest proportion (0%). 20% of pork sausage labels included nutritional or health claims across the EU. This was the case for 23% of EU15 products and 13% of EU12 products. Sweden had the highest proportion of pork sausage products with nutritional or health claim labelling (40%) and Lithuania, Slovenia, Luxembourg and Portugal had the lowest proportion (0%). Nutritional or health claim labelling was displayed on 20% of whole chicken products across the EU27. This proportion was the same in the EU15 (20%) and slightly higher in the EU12 (22%). Denmark had the highest proportion of whole chicken products with nutritional or health claim labelling (48%), while Lithuania and Cyprus had the lowest proportion (0%). Nutritional or health claim labelling was available on 13% of pork cutlets products across the EU27. 15% of EU15 pork cutlets and 9% of EU12 cutlets displayed this information. Finland and Hungary had the highest proportion of pork cutlets products with nutritional or health claim labelling (41%). Lithuania, Luxembourg, Portugal and Cyprus had the lowest proportion with 0%.

Nutritional or health claim labelling on minced beef products was found in 21% of cases in supermarkets and 20% of cases in hypermarkets and discount stores. None of the minced beef products assessed in markets/farms included this type of labelling. Nutritional or health claim labelling was found on 25% of pork sausages assessed in discount stores, while the lowest proportion was 14% in markets/farms. Nutritional or health claim labelling was displayed on 21% of whole chickens assessed in supermarkets and hypermarkets. The lowest proportion was found on markets/farms chickens (5%). Nutritional or health claim labelling on pork cutlets was found on 18% of products assessed in discount stores, but on none of the products assessed in markets/farms.

As presented in more detail in the technical report from the mystery shopping survey, in some cases specific information items overlapped with each other. For example, 49% of whole chicken that displayed an environment/climate certificate[42] also had a nutritional or a health claim. A nutritional or a health claim was also present on 29% of organic and on 26% of animal welfare certified whole chicken. In general, the most frequent combinations of information items were:

- Additional nutritional or health claim on products marketed with an environment/climate certificate
- Additional nutritional or health claim on products marketed as organic
- Additional nutritional or health claim on products marketed with an animal welfare certificate

[40] Please note the base size for environment/climate certified products is very low.
[41] Please see details in the consumer survey's technical report.
[42] Please note the base size for environment/climate certified products is very low.

This overview shows that the availability of labelling items varies across countries, meat categories, product types and purchase channels. For instance, information on the price per unit, the use by/best before date and the country of origin was less likely to be available in butchers, markets and farms overall. Still, the key items consumers look at the most, which are also mandatory, e.g. prices and best before/use by dates, are also the most available.

7.3 Retail channels used by consumers

7.3.1 Main and preferred retailer

Figure 29. shows the use of retail channels for meat purchases and retail channel preferences reported in the 2011 consumer survey. A majority of consumers use a supermarket (40%) or a hypermarket (18%) as their main retailer. A similar proportion (67%) said they mostly shopped in supermarkets and hypermarkets in the 2009 consumer satisfaction survey.

25% of consumers mentioned having a butcher shop as their main retailer in 2011 and smaller proportions mentioned grocery or convenience stores (7%), discount stores (6%), farms (2%) and markets (2%).

Consumers were also asked which retailer was their preferred retailer, regardless of where they currently buy meat. 36% of consumers say their preferred retailer for meat would be a butcher's shop and only 28% mention that their preferred retailer would be a supermarket. Only 2% of consumers say they mainly buy meat from a farm, but 7% mention this option as their preferred retailer for meat.

The answers show that consumers are more likely to use supermarkets and hypermarkets as their main retailers than to mention them as their preferred purchase channel. The opposite trend can be seen for butchers and farms.

Overall, 39% of consumers use as a main retailer a different purchase channel than their preferred retailer (Figure 30.). This proportion is 32%% in the EU12 and 40% in the EU15. Consumers in Hungary (70%) and Latvia (69%) are most likely to use as main retailer a different channel than their preferred one. Consumers in Greece, Cyprus (both 10%), Italy (11%) and Portugal (12%) are least likely to use as their main retailer a different channel than their preferred retailer.

Figure 29. Q5A/Q5B. Main and preferred retailers

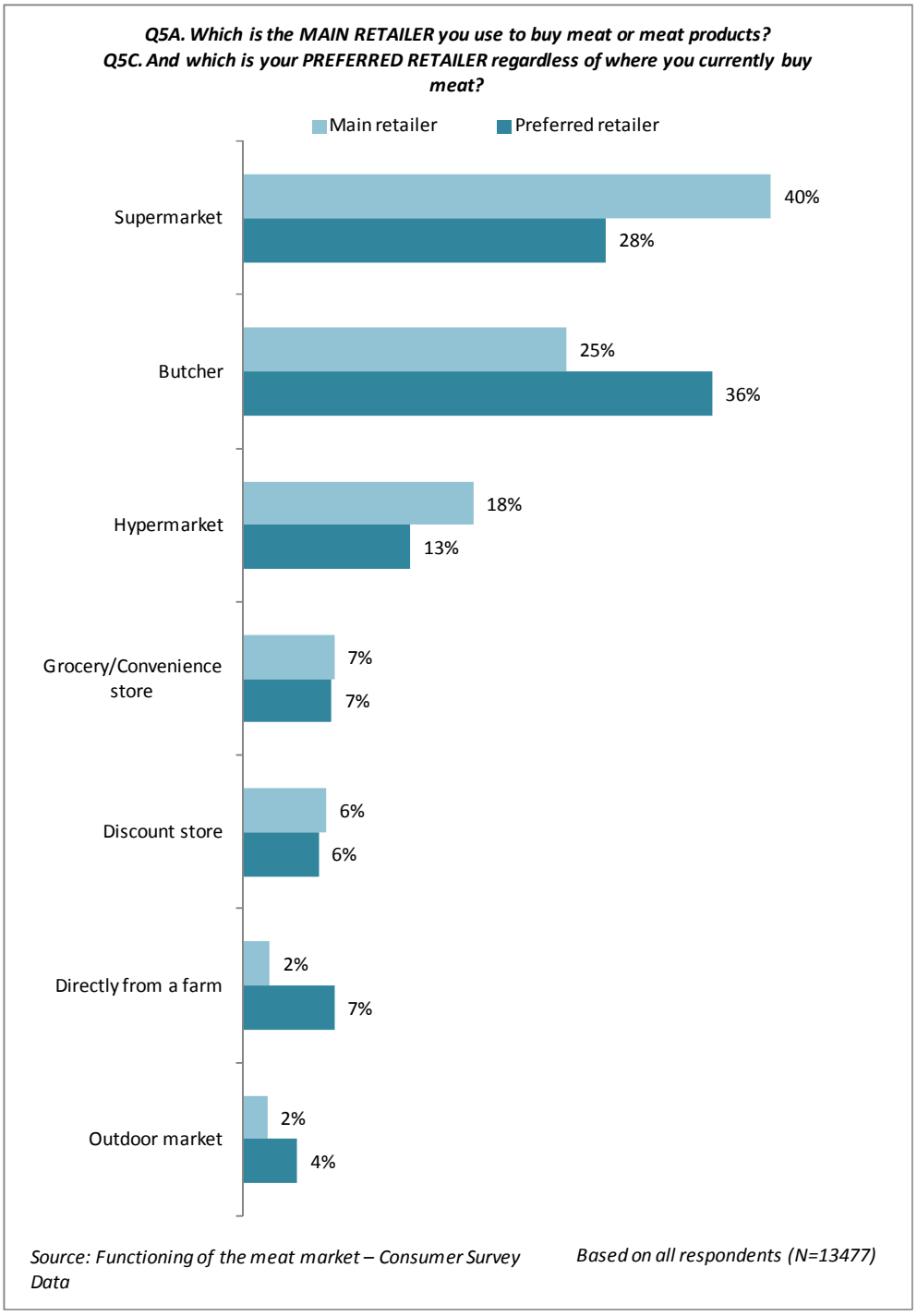
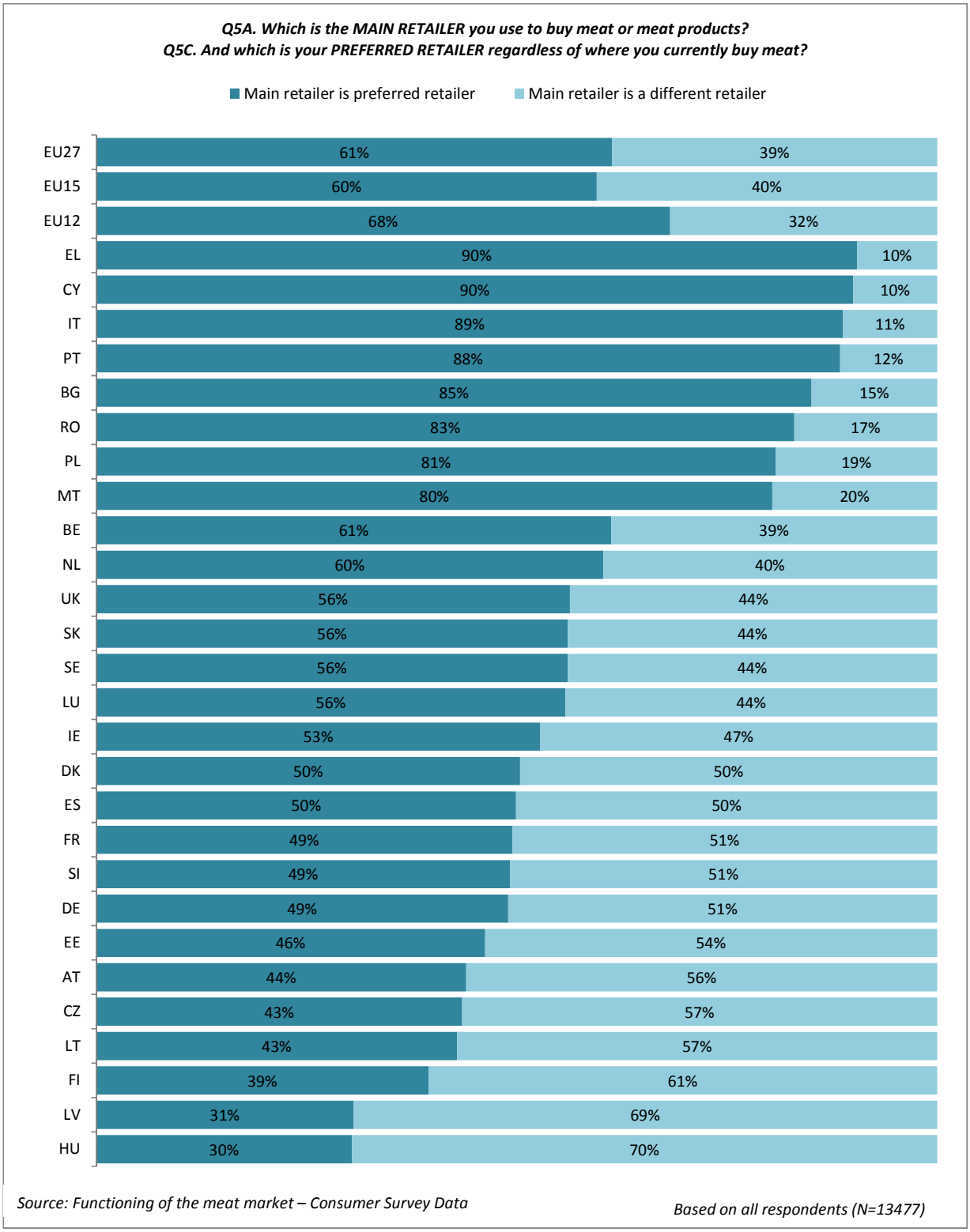


Figure 30. Q5A/Q5C. Consumers who use their preferred retailer as a main retailer



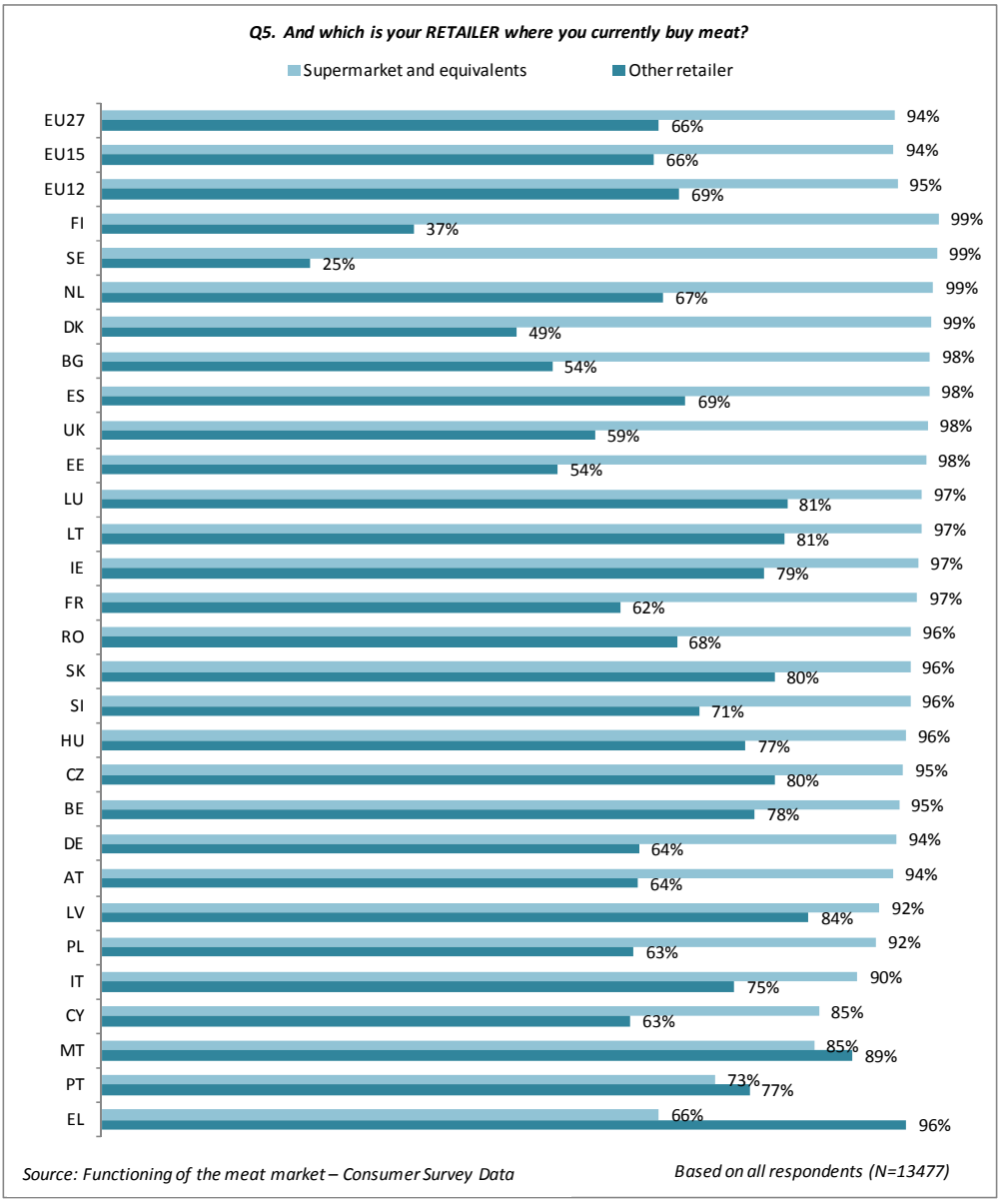
Source: Functioning of the meat market – Consumer Survey Data

Based on all respondents (N=13477)

When asked to mention all retailers they currently use for their meat purchases (Figure 31.), 94% of EU consumers mention supermarkets or other similar retailers (hypermarkets, convenience stores and discount stores). 66% mention other retailers, i.e. butchers, markets or farms.

Higher proportions of consumers go to supermarkets than other types of retailers in all but three countries: Greece, Portugal and Malta. The overall trend is reversed in Greece, where 96% of consumers sometimes purchase meat from other retailers, but only 66% sometimes purchase from supermarkets. These differences can be linked to the availability of purchase channels, but also to cultural differences.

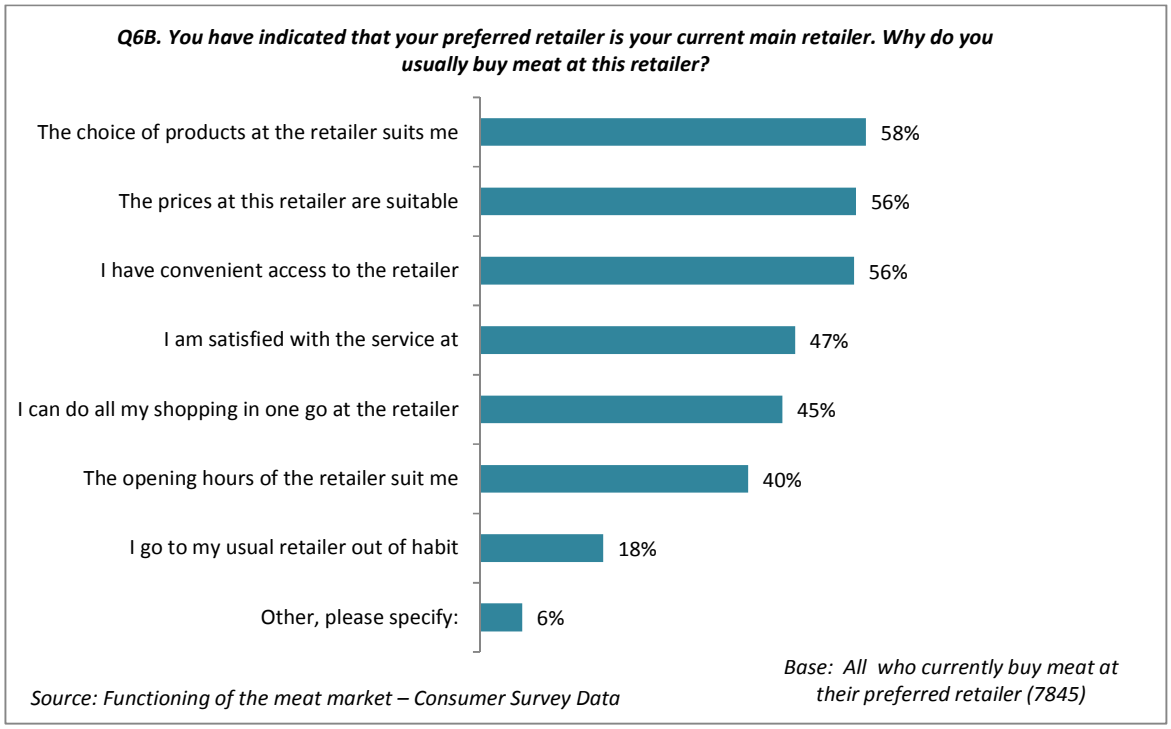
Figure 31. Q5. Retailer where consumer currently buys meat - Supermarket and equivalents / Other retailers



7.3.2 Reasons behind consumers' choice of a retail channel

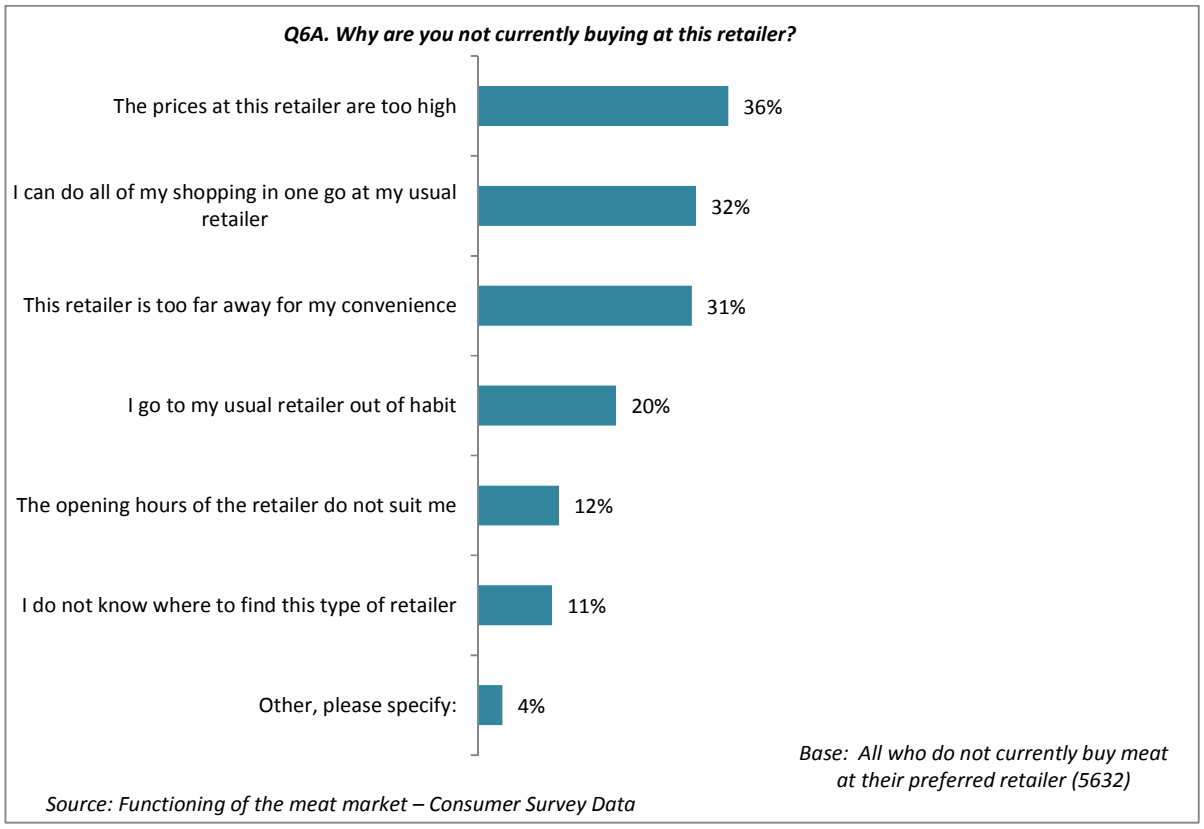
The 61% of consumers who say their main retailer is their preferred retailer in the 2011 consumer survey were asked why they buy meat at their current retailer (Figure 32.). The most frequent mentions are a suitable choice of products (58%), suitable prices (56%) and convenient access (56%).

Figure 32. Q6B. Reasons for buying at current retailer



In contrast, consumers who say their current main retailer is not their preferred retailer in the 2011 consumer survey were prompted on why they did not mainly shop there (Figure 33.). Over a third (36%) of consumers mentioned high prices as a reason. Slightly under a third mentioned being able to do all of their shopping in one go at their main retailer (32%) and their preferred retailer being too far away (31%).

Figure 33. Q6A. Reasons for not buying at preferred retailer



Although a large proportion of consumers say their main retailer is not their preferred retailer (39%), these consumers are likely to mention their preferred retailer when asked which other retailers they use, apart from their main one. This means that many consumers have access to their preferred retailer, but may not visit it as often as they would like.

8 Ability

CHAPTER SUMMARY – ABILITY

Definition

Ability refers to the ability to understand and process information, problem-solving skills, including breaking habits or resisting peer pressure, and practical aspects of purchases, such as financial means.

Main findings

- **Consumers have a very limited understanding of labelling**: only 4% identified the correct meaning of the Protected Designation of Origin logo. 36% correctly identified the meaning of a 'best before date' and 23% the meaning of a 'low fat' label.
- The proportion of correct answers for the best before date was higher among EU15 consumers (40%) compared to 20% among EU12 consumers. The proportion of correct answers is highest in the Nordic countries with 69% in Sweden, 68% in Finland and 64% in Denmark. This figure is the lowest in Romania (5%), Greece and Cyprus (8%).
- **Consumers who use more information sources and look at more information aspects are only slightly more likely to understand the meaning of labelling**.
- **Whether or not consumers know the correct meaning of the best before date does not appear to impact their likelihood to throw meat away because it is over the due date**. Indeed, consumers who mention this reason were as likely to select a wrong or correct answer when asked about the meaning of the best before date. Besides, **consumers who know the correct meaning of 'low fat' are not more likely than others to look at nutritional information when purchasing meat**.
- 76% of consumers are aware of meat for which the country of origin is specified and 55% of origin certified meat. However, **less than half of consumers are aware of other specific meat types**: organic (49%), animal welfare certified (44%), meat with nutrition claims (35%), slaughtered according to religious rites (25%), or environment/climate certified (15%).
- Besides, awareness differs significantly between countries, with EU15 consumers being generally more aware of specific types of meat.
- Self-reported financial difficulties do not seem to have an impact on the category (e.g. beef, pork, poultry, lamb) or type of meat (e.g. organic, with specific certificates) consumers buy. However, **consumers with financial difficulties are more likely to**

say they want to buy meat less often due to its price (43% compared with 26% for other consumers).

Consumer ability is limited in terms of understanding and knowledge of the meat market, but consumers seem less restricted by limited financial means.

Research questions

What do consumers understand about the safety/quality/health/sustainability/animal welfare/origin of meat and how does this impact their purchase behaviour? Do consumers have sufficient, clearly understandable and trustworthy information about safety/quality/health/sustainability/animal welfare/origin of meat? Which are the most important sources of information?How easy is it for consumers to compare prices/quality and is there sufficient information available in this respect?

Ability can be described as skills that allow consumers to make purchasing decisions. This includes financial resources to buy meat or meat products, knowledge of the purchase and information processes and the ability to use this knowledge. This chapter addresses consumer ability from different points of view: the financial means to purchase meat, the ability to compare prices and quality, the ability to recognise logos and understand labelling and, finally, the awareness of different types of meat.

8.1 Impact of consumer financial situation on meat purchases and intentions

The respondents of the consumer survey carried out as a part of the study were asked to assess whether their household had had difficulties to pay the bills at the end of the month in the past year prior the survey. This variable was taken as an indication of the financial situation of the household and thus reflecting the financial resources to buy meat.

When firstly looking at the link between the self-reported financial situation and consumer purchase behaviour (Figures 34. and 35.), it can be observed that there are no considerable differences in the purchase patterns of EU consumers when it comes to the category of meat or the type of meat they purchase. Given that there are considerable price differences between different categories and types of meat shown by the mystery shopping exercise, the results imply that the self-perceived financial situation is not largely linked to the purchase behaviour of consumers.

Figure 34. Meat purchased in the past month

Q1. Which of the following have you purchased in the past month?		SELF-REPORTED FINANCIAL DIFFICULTIES	
	EU27	Yes	No
Base size	**13477**	**5700**	**7329**
Beef	*66.6%*	*65.5%*	*67.2%*
Veal	*35.9%*	*39.6%*	*32.8%*
Pork	*78.8%*	*79.8%*	*78.2%*
Lamb	*26.3%*	*29.5%*	*24.3%*
Chicken	*88.8%*	*90.1%*	*88.1%*
Turkey	*42.9%*	*42.9%*	*42.6%*
Meat products	*93.3%*	*92.6%*	*93.7%*
Average number of types bought	**5.3**	**5.4**	**5.2**

Figure 35. Meat and meat products purchased in the past month

Q3. And which of the following types of meat and meat products have you purchased in the past month?		SELF-REPORTED FINANCIAL DIFFICULTIES	
	TOTAL	Yes	No
Base size*	**13477**	**5700**	**7329**
Meat for which the country of origin is specified	*78.7%*	*79.3%*	*78.3%*
Animal welfare certified	*49.0%*	*52.4%*	*46.1%*
Slaughtered according to religious rites	*17.6%*	*23.3%*	*13.7%*
Organic	*32.5%*	*31.1%*	*33.4%*
Environment/climate certified	*31.4%*	*35.9%*	*26.8%*
Origin certified	*59.3%*	*60.6%*	*58.2%*
Meat with nutrition claims on better nutritional values	*44.1%*	*44.7%*	*44.0%*
I am not aware of having bought one of these	*31.4%*	*33.6%*	*30.2%*

**Note: The base of each row is those respondents who say they know the type in Q2*

However, when looking at consumers' intentions, another pattern emerges. Respondents were asked whether they like to purchase meat less often or specific meat types more often. If they answered yes, they were asked why.

Respondents who indicate that they have financial difficulties are more likely to say that they would like to purchase meat less often due to its price (43% among consumers with financial difficulties, compared with 26% of other consumers). **This means that some consumers with financial difficulties would like to buy meat less often because it is too expensive, while others would like to buy specific meat types more often, but do not do so because of prices**. This may be evidence that, although consumers with financial difficulties purchase as much meat as others, they may focus their purchases on cheaper meat and may not be buying the meat they would most like to buy.

8.2 Consumer ability to compare prices and quality between retailers

According to results of the consumer satisfaction survey from 2009, a majority of EU consumers agree[43] (58%) that they can easily compare prices from different retailers when buying meat, while only 7% disagree[44] (Ipsos, 2009). As displaying price per unit is compulsory across the EU[45], it can be assumed that consumer have the opportunity to make informed decisions in terms of price. However, large variations are detected between Member States, which may imply either malfunctioning in terms of having the information available or in terms of consumers being able to understand it. Scores range from 34% agreement in Spain to 81% in

[43] The result encompasses consumers who gave between 8 and 10 points on a 10 point scale at this question.
[44] The result encompasses consumers who gave between 0 and 4 points on a 10 point scale at this question.
[45] Directive 98/6/EC of the European Parliament and of the Council of 16 February 1998 on consumer protection in the indication of the prices of products offered to consumers obliges traders to indicate the selling price and the price per unit of measurement on all the products which they offer to consumers. However, for some small retail businesses and for certain forms of itinerant trade, the obligation to indicate the unit price may be an excessive burden. In such cases the national authorities may stipulate that the obligation to indicate the unit price of products, other than those sold in bulk, shall not apply for a transitional period from March 2000 onwards.

Greece. The highest level of disagreement is observed in Estonia (23%) and the lowest in Ireland (1%) (Ipsos, 2009).

Comparing the quality of meat from different retailers seems to be a more challenging task for consumers with only 49% EU consumers agreeing this is easy and 12% disagreeing. However, large differences across countries are visible for this aspect: agreement levels range from 27% in Denmark to 71% in Ireland, while disagreement levels range from 4% in Ireland to 33% in Estonia.

8.3 Consumer ability to understand labelling

8.3.1 Organic farming and ecological product

In the Eurobarometer survey on consumer empowerment (Special Eurobarometer 342, 2010), consumers' awareness of various labels was tested. As an example, we present here the results for the two most relevant logos, the logo of organically farmed products (Figure 36.)[46] and the logo of ecological non-food products (Figure 37.).

Figure 36. Organic farming logo

Figure 37. Ecological non-food product logo

In both cases, **the largest segment of consumers replied they do not know** when asked about the meaning of the logos, 41% regarding the logo of organically farmed products and 47% regarding the logo of ecological products. 34% correctly know the meaning of the first logo but only 12% identify the second label standing for products produced according to strict environmental standards. This implies that despite the

[46] The logo has been subsequently replaced by a new logo. Council Regulation (EC) No 834/2007 on organic production and labelling of organic products (European Union, organic production and labelling of organic products) and repealing Regulation (EEC) No 2092/91 concerns the production, control and labelling of organic products and applied from 1st January 2009 onwards equally in all the 27 Member States. The placement of the new EU organic logo has been mandatory from 1 July 2010 for pre-packaged food.

selection of logos offered to consumers at EU level today, **very few EU consumers actually recognise the logos** in the first place, not to speak of having the logo influencing their purchase decision making.

When looking into the factual knowledge consumers possess concerning the meat market it can be concluded that this knowledge is very limited. Several questions of the consumer survey refer to aspects of ability: question 2[47] deals with the awareness of different meat types and questions 16[48], 17[49] and 18[50] with consumers' knowledge and understanding of labelling. Consumers were asked to select the correct statement out of several options corresponding to the meaning of a labelling item they could encounter when purchasing meat and meat products.

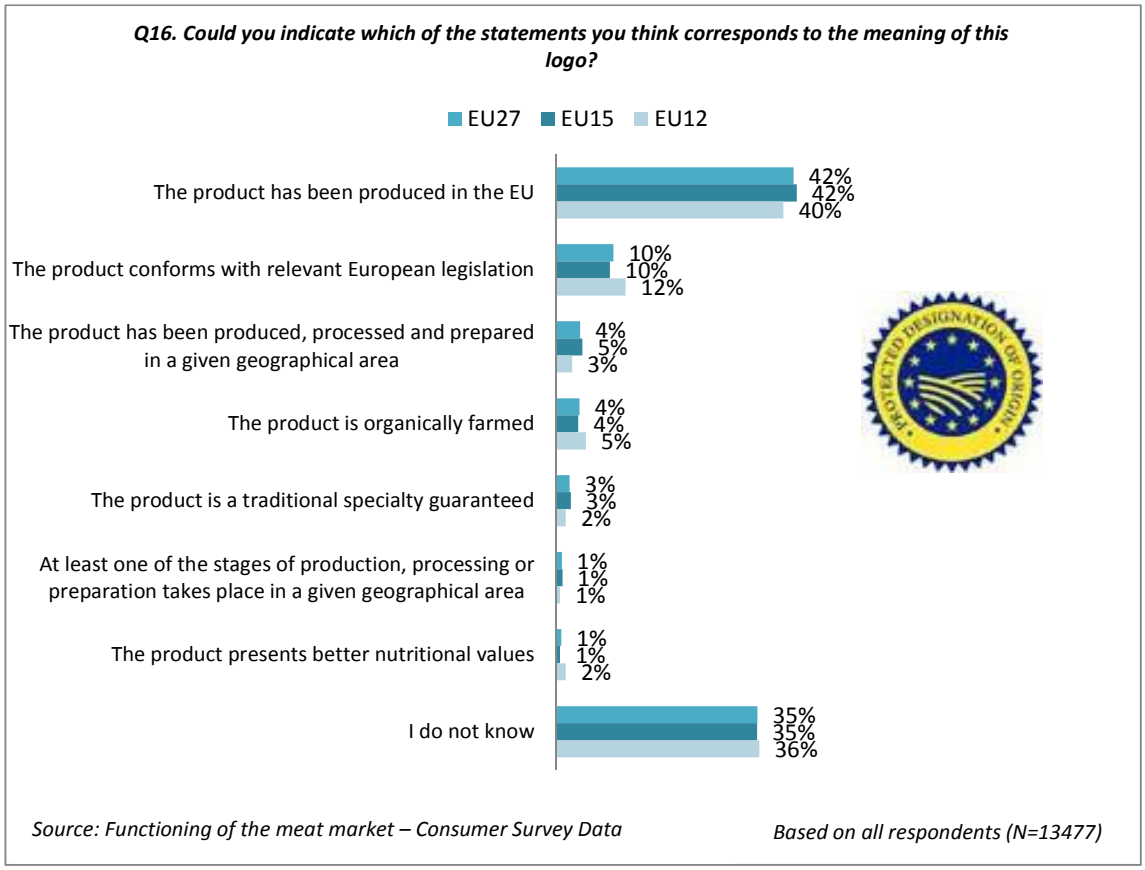
8.3.2 Protected Designation of Origin logo

When asked for the meaning of **the Protected Designation of Origin logo**, most consumers did not select the correct option (Figure 38.). Please note that all writing on the logo was slightly blurred to measure awareness of the logo itself. Two in five consumers (42%) thought that the logo identifies a product had been produced in the EU[51], while over a third (35%) answered 'I do not know.' **Only 4% of consumers selected the correct answer**, 'The product has been produced, processed and prepared in a given geographical area'.

The difference between the EU15 and EU12 is minimal, with respectively 5% and 3% correct answers. The proportion of correct answers varies from 1% in Romania, Greece and Portugal to 8% in Slovenia and 7% in Italy. [52]

[47] Q2 Which of the following types of meat and meat products do you know?
[48] Q16 Could you indicate which of the statements you think corresponds to the meaning of this logo?
[49] Q17 A sealed pack of dry sausage that you have purchased has a best before date on its label. What does it mean?
[50] Q18. The pack of ham that you have bought has a label 'low fat' on it. What does it mean?
51 Please note that the answer "The product has been produced in the EU" is technically correct, but does not reflect the concrete meaning of the logo.
[52] Please see details in the consumer survey's technical report.

Figure 38. Q16. Meaning of the Protected Designation of Origin logo

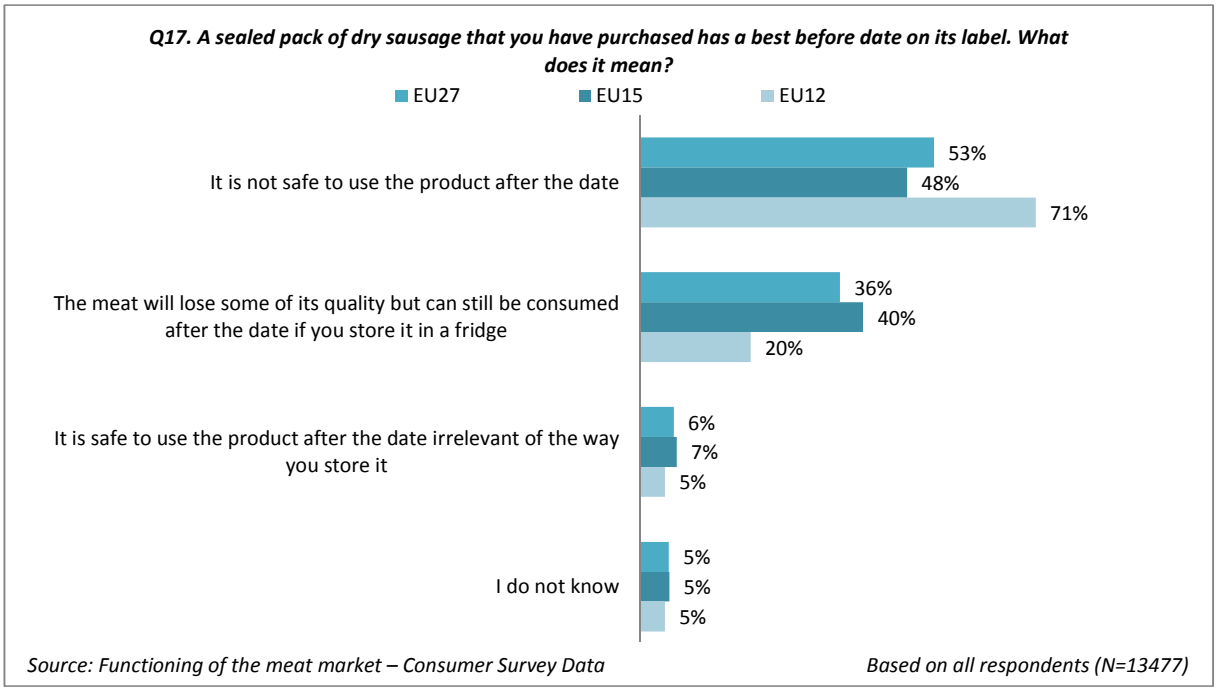


8.3.3 Best before date

As shown on Figure 39., over half (53%) of consumers thought that it is not safe to use a sealed pack of dry sausage after its best before date. **A minority, namely a third (36%) of consumers selected the correct answer**: 'The meat will lose some of its quality but can still be consumed after the date if you store it in a fridge'. EU12 consumers were more likely to say that the sausage would not be safe to consumer after the best before date, with 71%, being of this opinion compared with 48% for EU15 consumers. The proportion of correct answers was higher among EU15 consumers (40%) compared to 20% among EU12 consumers. The proportion of correct answers is highest in the Nordic countries with 69% in Sweden, 68% in Finland and 64% in Denmark. This figure is the lowest in Romania (5%), Greece and Cyprus (8%).[53]

[53] Please see details in the consumer survey's technical report.

Figure 39. Q17. Meaning of best before date



Whether or not consumers know the correct meaning of the statement does not appear to impact their likelihood to throw away meat because it is over the due date. Indeed, consumers who mention this reason were as likely to select a wrong or correct answer when asked about the meaning of the best before date.

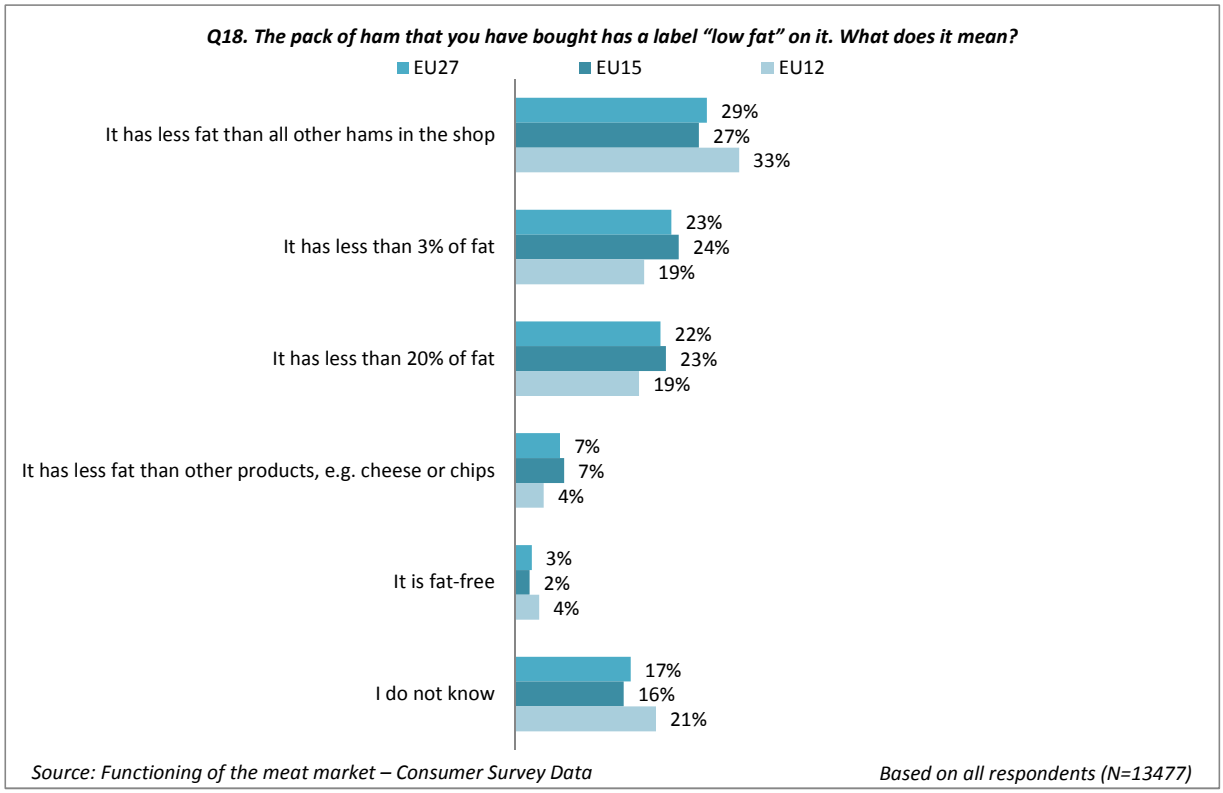
8.3.4 'Low fat' claim

Looking into the last factual knowledge item asking consumers for **the meaning of a 'low fat' label**, just **under a quarter of consumers (23%) selected the correct answer** 'less than 3% of fat' (Figure 40.). The most common answer was 'It has less fat than all other hams in the shop' and was chosen by around a third of consumers (29%). 22% of consumers thought the product had less than 20% of fat and 17% answered 'I do not know'. EU12 consumers are more likely to select 'It has less fat than all other hams in the shop' (33% compared with 27% for EU15 consumers) and 'I do not know' (21% compared with 16%). EU15 consumers are more likely to think 'low fat' means less than 3% of fat (24% compared with 19% for EU12 consumers) or less than 20% of fat (23% compared with 19%). Consumers in Finland (37%) and the Czech Republic (35%) are the most likely to select the correct answer. Consumers in Portugal, Bulgaria and Romania are the least likely to do so, with 12% selecting the correct answer. [54]

However, **consumers who know the correct meaning of 'low fat' are not more likely than others to look at nutritional information when purchasing meat**.

[54] Please see details in the consumer survey's technical report.

Figure 40. Q18. Meaning of 'low fat' label



8.4 Awareness of specific types of meat

8.4.1 Overall results

When analysing consumers' self-assessment concerning their awareness of different types of meat, it can be said that awareness of the more general types (such as specified country of origin) is more widespread in the EU than the knowledge of the more specific types (such as organic). Figure 41. also shows that **there is a clear link between the level of awareness and the likelihood to purchase a given type of meat or meat product**.

On average, 90% of consumers are aware of at least one specific meat type. More than half are aware of meat for which the country of origin is specified (76%) and origin certified meat (55%). In contrast, less than a quarter of consumers are aware of religiously slaughtered meat (25%) and environment or climate-certified meat (15%). Several national stakeholders mentioned that the organic, environment or animal welfare certified markets are in their early stages in their country, which may explain the low figures reported for these types of meat.

Figure 41. Q2. Q3. Awareness and purchase of specific types of meat

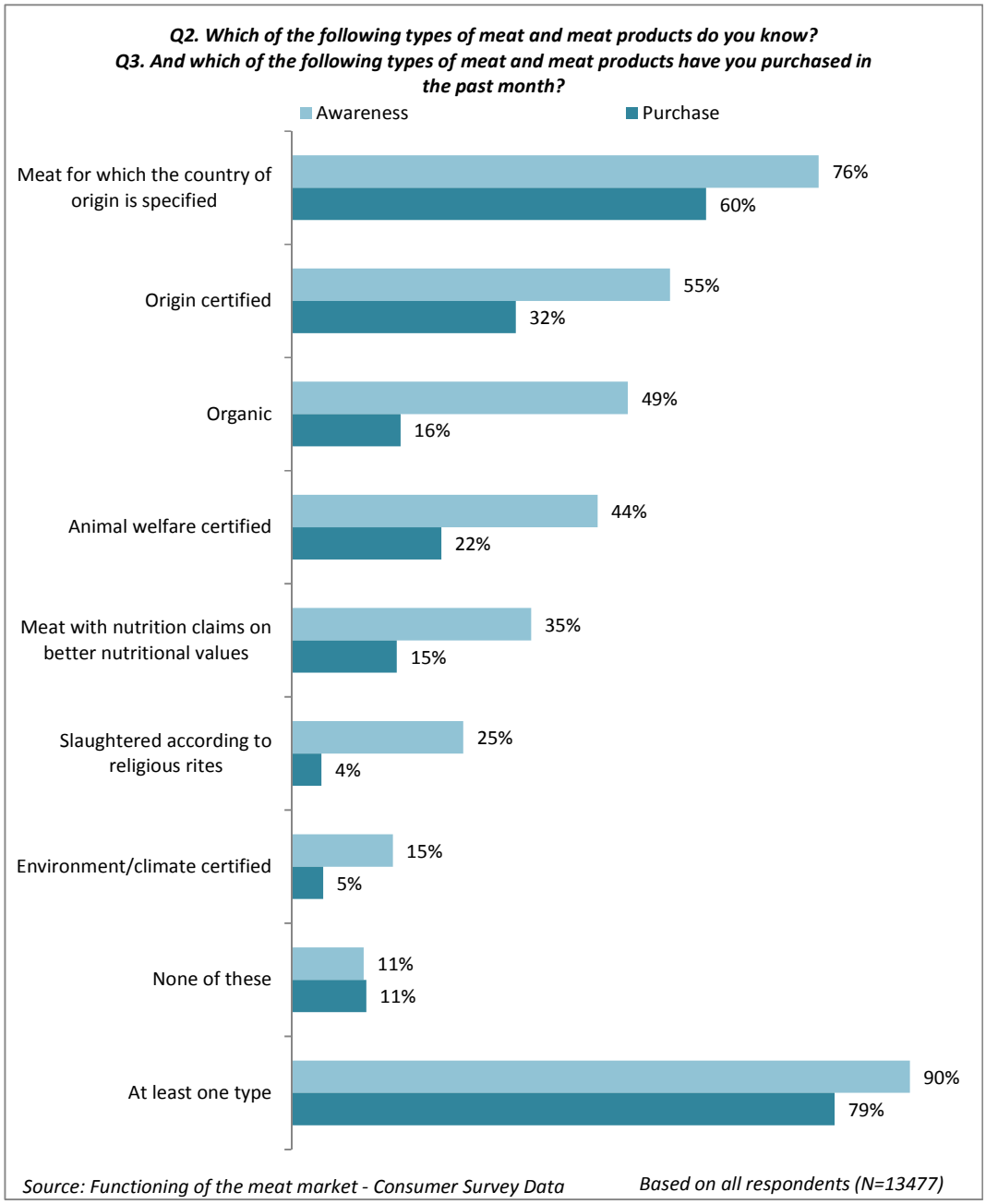
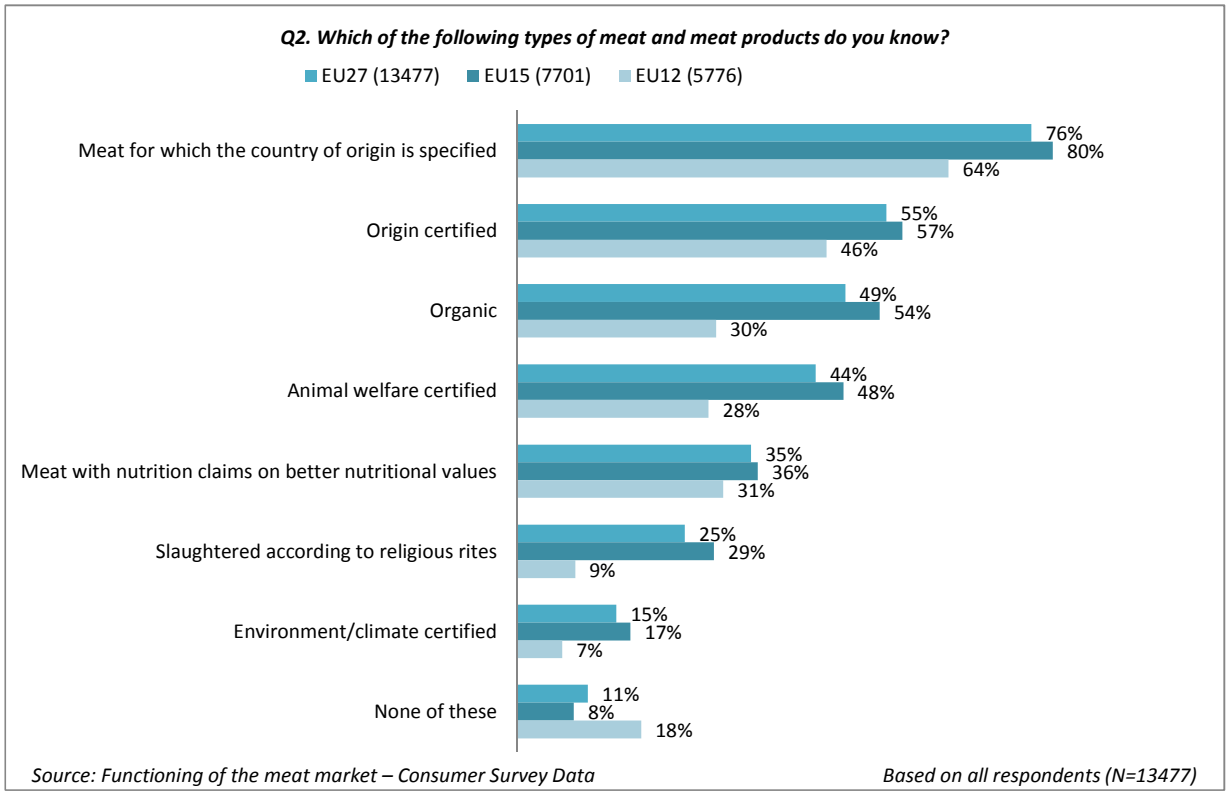


Figure 42. Q2. Awareness of specific meat types – differences between EU15 and EU12



8.4.2 Results by country

Around three in four consumers (76%) are aware of meat for which the country of origin is specified, while 60% of all consumers have purchased such a product in the past month. Awareness and purchase figures for meat for which the country of origin is specified are **higher for EU15** member states (respectively 80% and 63%) than for EU12 member states (64% and 50%). Estonian (34%) and Portuguese (45%) consumers are the least likely to be aware of meat for which the country of origin is specified. Swedish (92%) and Luxembourgish (90%) consumers are at the other end of the spectrum. **These results partially match the purchase pattern by country**. Swedish (84%) and Irish (78%) consumers are the most likely to have purchased this product in the past month. In contrast, Estonian (21%), Portuguese (37%) and Dutch (37%) consumers are the least likely to say they purchase meat for which the country of origin is specified in the past month. [55]

Over half of consumers (55%) are aware of origin certified meat, while around a third (32%) has purchased this product in the past month.[56] **EU12 consumers (46%) are slightly less likely** than EU15 consumers (57%) to be aware of origin certified products. However, purchase figures are similar with 33% in the EU15 group and 29% in the EU12 group. There are large differences across countries. Hungary and Luxembourg are the top two countries in the ranking, both for awareness (respectively 82% and 81%) and

[55] Please see details in the consumer survey's technical report.
56 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.

past month purchase (68% and 55%). Cyprus ranks last with 12% awareness and just 2% of consumers saying they bought an origin certified product in the past month. [57]

Just under half of consumers (49%) are aware of organic meat and 16% say they have bought this product in the past month. There is a **large difference between EU15 countries** (54% awareness and 18% purchase) **and EU12 countries** (30% awareness and 8% purchase). Nordic countries are at the top of the ranking for awareness, with 75% for Finland, 74% for Denmark and 72% for Sweden. However, the top three countries in terms of purchase are Denmark (39%), Austria and Luxembourg (both 30%). Bulgaria comes last for awareness with 18%. Bulgaria, Portugal and Hungary have the lowest proportion of consumers saying they purchased organic meat in the past month with 5%.[58]

Just under half of consumers (44%) are aware of animal welfare certified meat, while a quarter (22%) say they have purchased this product in the past month. Both **awareness and purchase figures are lower for EU12 countries than for EU15**, with respectively 28% and 48% in terms of awareness, and 13% and 24% in terms of purchase. The top countries for awareness are Luxembourg (63%) and Austria (62%), while Latvia comes last with 18%. Looking at purchases, Austria and the UK come first with 30%, while Latvia (4%), Estonia (5%) and Bulgaria (6%) come last. [59]

Around one third (35%) of consumers are aware of meat with nutrition claims on better nutritional values, while 15% have purchased this product in the past month. These proportions are stable across country groupings. Finland (67%) and Slovenia (58%) are at the top of the ranking for awareness, while Latvia (18%) and Slovakia (19%) are at the bottom. The same countries come first and last for purchases, with 36% and 28% for Finland and Slovenia, and 5% and 7% for Latvia and Slovakia. [60]

One quarter of consumers (25%) are aware of meat slaughtered according to religious rites. This proportion is **much higher in EU15 countries**, with 29%, than in EU12 countries, with 9%. Similarly, 4% of consumers say they have purchased this product in the past month, with 5% in EU15 countries and 1% in EU12 countries. The two top countries for awareness are the UK (49%) and Sweden (45%), while Romania (3%), Cyprus (4%) and Estonia (4%) rank last. Looking at purchases of religiously slaughtered meat, France (11%) and the UK (10%) come first. In seven countries, fewer than four respondents mentioned buying religiously slaughtered meat in the past month: Cyprus, Estonia, Greece, Hungary, Portugal, Slovakia and Lithuania.[61]

For all specific meat types surveyed awareness figures are consistently higher in the EU15 than in the EU12.

8.4.3 Grouping of meat types known by consumers

Finally, as part of the analysis, a principal component analysis was carried out on Q2[62] in order to see whether any patterns emerge from the data following the steps described in annexes I and II in the beginning of this report. As a result of the analysis two clear components can be distinguished (Figure 43.). The two factors can

[57] Please see details in the consumer survey's technical report.
[58] Please see details in the consumer survey's technical report.
[59] Please see details in the consumer survey's technical report.
[60] Please see details in the consumer survey's technical report.
[61] Please see details in the consumer survey's technical report.

[62] Which of the following types of meat and meat products do you know?

be classified **as a more general factor grouping origin-related items** (*Meat for which the country of origin is specified' .848; 'Origin certified' .652)* and **a more specialised grouping more specific types of mea**t *('Environment, climate certified' .740; 'slaughtered according to religious rites' .633; 'Meat with nutrition claims on better nutritional values' .588; 'organic meat' .585 and 'animal welfare certified meat', .528*)). In other words, **a consumer that is aware of one type of specific meat is likely to be aware of many specific types of meat** and the same applies to more generic types of meat for which the origin is specified.

Figure 43. Which of the following types of meat and meat products do you know?

	Component	
	Special	Regular
q2_5 Which of the following types of meat and meat products do you know? Environment/climate certified	0.740	-0.030
q2_3 Which of the following types of meat and meat products do you know? Slaughtered according to religious rites (for example Halal or Kosher)	0.633	0.132
q2_7 Which of the following types of meat and meat products do you know? Meat with nutrition claims on better nutritional values	0.588	0.197
q2_4 Which of the following types of meat and meat products do you know? Organic	0.585	0.401
q2_2 Which of the following types of meat and meat products do you know? Animal welfare certified	0.528	0.400
q2_1 Which of the following types of meat and meat products do you know? Meat for which the country of origin is specified	0.008	0.848
q2_6 Which of the following types of meat and meat products do you know? Origin certified	0.283	0.652

8.5 Weak relationship between information-seeking behaviour and consumer ability to understand some information aspects

One of the themes of this study is the link between information and consumer empowerment. In order to investigate that connection, we will have a look at results of the ability questions regarding consumers' objective knowledge together with the questions regarding the number of sources consumers use to get information and the number of aspects they look at when purchasing meat. The assumption is that those consumers who use a higher number of sources for information and look at a higher number of aspects when purchasing meat could generally have better abilities as consumers, in other words, would be more knowledgeable of different aspects of the meat market. Figures 44., 45. and 46. show results for the question combinations mentioned above.

Figure 44. Q16. Meaning of PDO logo by information usage

		Q11 - Average number of sources of information used				Q12 - Average number of aspects looked at when purchasing meat				
		0	1-2	3-4	5+	0	1-2	3-4	5-6	7 and more
Base size		*1536*	*5102*	*4223*	*2616*	*952*	*2820*	*4053*	*2676*	*2976*
Could you indicate which of the statements you think corresponds to the meaning of this logo?	The product is organically farmed	3.5%	4.0%	4.6%	4.5%	3.5%	3.5%	5.0%	3.4%	4.9%
	The product has been produced in the EU	30.5%	41.5%	42.6%	46.3%	28.7%	37.7%	42.1%	45.3%	45.2%
	The product has been produced, processed and prepared in a given geographical area	3.1%	3.4%	4.3%	6.7%	3.7%	2.6%	3.8%	4.7%	6.5%
	The product is a traditional specialty guaranteed	2.5%	2.2%	1.8%	4.3%	3.9%	2.3%	2.0%	2.5%	3.1%
	At least one of the stages of production, processing or preparation takes place in a given geographical area	1.4%	.4%	1.5%	1.8%	2.2%	.6%	.8%	1.2%	1.8%
	The product conforms with relevant European legislation	7.4%	8.9%	11.8%	11.3%	6.3%	7.8%	9.5%	11.7%	12.8%
	The product presents better nutritional values	1.5%	.7%	1.0%	1.3%	2.3%	.7%	1.0%	.9%	1.0%
	I do not know	50.1%	38.8%	32.4%	23.9%	49.4%	44.8%	35.9%	30.4%	24.7%

Regarding the recognition of the PDO logo, a weak connection can be seen between the number of sources of information used and number of aspects looked at and the level of awareness of the logo, with those who use several sources and look at several aspects being slightly more knowledgeable.

A similar pattern can be observed for the other two questions concerning respondents' objective knowledge: a more substantial use of information seems to have a weak impact on consumers' knowledge of the meat market.

It is interesting to observe that the number of information sources used and information aspects looked at are linked to the share of consumers who answered 'I do not know.' Generally, consumers who seek information more actively are less likely to answer 'I do not know' and therefore perceive themselves as more knowledgeable. However, this is not necessarily reflected in their actual level of understanding of labelling information.

Figure 45. Q17. Meaning of best before date by information usage

		Q11 - Average number of sources of information used				Q12 - Average number of aspects looked at when purchasing meat				
		0	1-2	3-4	5+	0	1-2	3-4	5-6	7 and more
Base size		*1536*	*5102*	*4223*	*2616*	*952*	*2820*	*4053*	*2676*	*2976*
A sealed pack of dry sausage that you have purchased has a best before date on its label. What does it mean?	It is safe to use the product after the date irrelevant of the way you store it	6.2%	5.2%	5.4%	9.0%	8.7%	5.5%	5.5%	5.5%	7.4%
	The meat will lose some of its quality but can still be consumed after the date if you store it in a fridge	38.5%	35.4%	35.3%	36.3%	31.4%	32.8%	35.2%	38.0%	39.2%
	It is not safe to use the product after the date	41.0%	54.2%	56.2%	51.6%	36.0%	56.1%	54.9%	54.3%	50.9%
	I do not know	14.3%	5.2%	3.1%	3.1%	23.9%	5.6%	4.4%	2.3%	2.4%

Figure 46. Q18. Meaning of best before date by information usage

		Q11 - Average number of sources of information used				Q12 - Average number of aspects looked at when purchasing meat				
		0	1-2	3-4	5+	0	1-2	3-4	5-6	7 and more
Base size		*1536*	*5102*	*4223*	*2616*	*952*	*2820*	*4053*	*2676*	*2976*
The pack of ham that you have bought has a label "low fat" on it. What does it mean?	It has less fat than all other hams in the shop	24.8%	29.2%	29.5%	28.6%	23.6%	31.2%	28.0%	29.3%	28.0%
	It has less than 3% of fat	20.1%	22.0%	23.9%	26.9%	15.3%	20.3%	24.0%	23.9%	27.4%
	It has less fat than other products, e.g. cheese or chips	6.9%	5.6%	5.9%	9.9%	6.1%	6.3%	6.8%	4.8%	8.6%
	It has less than 20% of fat	19.0%	21.3%	22.1%	23.1%	17.2%	19.4%	19.9%	24.9%	24.8%
	It is fat-free	2.4%	2.4%	3.0%	1.8%	3.5%	2.4%	2.8%	2.3%	1.8%
	I do not know	26.8%	19.5%	15.6%	9.7%	34.3%	20.4%	18.4%	14.8%	9.3%

9 Intention and Behaviour

CHAPTER SUMMARY – INTENTION AND BEHAVIOUR

Definition

Intention refers to decision-making just before the purchase and **behaviour** stands for the purchase action itself.

Main findings

- **Existing research shows that there is a gap between consumer intentions and behaviour,** particularly for ethical products, which is supported by the survey results: many consumers declare an interest in ethical products but only smaller proportions purchase them.
- **68% of EU consumers say they would like to buy at least one specific type of meat more often**, with 41% willing to buy organic meat more often, 40% animal welfare certified meat, 39% origin certified meat (with an origin-related quality certificate) and 38% meat they would choose because of the country of origin. Among others, these figures tend to be higher for younger consumers, urban consumers and high frequency consumers for a range of meat types.
- **Consumers were asked why they do not already buy these meat types more often. The most frequent answer was 'It is too expensive'** for all meat types but environment/climate certified and religious slaughter certified meat, for which respondents were more likely to answer 'I am not sufficiently well informed' (respectively 34% and 35% of answers).
- **32% of consumers would like to buy meat less often**. Urban consumers and low frequency consumers were more likely to claim having this intention. **The most frequent reason for wanting to buy meat less often is health** (mentioned by 54%), followed by expensive prices (34%), safety concerns (21%), environmental reasons (16%) and ethical reasons (16%).
- Looking at purchases of specific meat types, **60% of consumers purchased meat for which the country of origin is specified** in the month before the survey. **Origin certified meat and animal welfare certified meat were also purchased by quite significant proportions of consumers** (32% and 22% respectively), but proportions were smaller for all other types.
- **Awareness and purchases are aligned for meat for which the country of origin is specified and origin certified meat, with respectively 79% and 59% of consumers *who are aware* of each type purchasing it in the past month**. However, only 18% of

consumers who are aware of religious slaughter meat have purchased it in the past month.

- Consumers have a consistent behaviour in terms of purchases: **consumers who have purchased a specific meat type in the past month are more likely to want to buy it more often and to look for related information items**. However, purchases at country level do not match the availability of related information items.

- **23% of consumers report meat waste**. On average, these consumers threw edible parts of meat or meat products 3.5 times in the past month. This figure is higher in the EU15 (25%) than in the EU12 (16%).

- **When asked for their main reason for throwing meat away, consumers are most likely to mention the meat being over its use by date** (31%) **and I prepared/cooked too much** (18%). When taking into account all reasons for throwing meat away, EU15 consumers are more likely to say the meat was over its use by date or that they did not prepare the meat properly. EU12 consumers are more likely to say the meat had gone bad or that the taste was not what they expected.

- 7% of consumers who threw meat away in the past month did not report any financial loss. **Other consumers lost on average 9€**. The average loss seems to decrease with age and increase with the frequency of consumption. EU12 consumers are also more likely to report losses under 5€ (69% compared with 50% in the EU12).

- Only consumers who bought meat or meat products within the month before the survey took part in this research. Among them, 93% have purchased **meat products** (e.g. ham, salami) in the month before the survey, 89% chicken and 79% pork. Beef was mentioned by 67% of consumers, followed by turkey (43%), veal (36%) and lamb (26%).

- **17% of respondents to the consumer survey eat meat every day, while 26% eat meat 4 to 6 times a week**. Consumers in all countries but five (Spain, Romania, Portugal, France and Greece) eat meat products more often than fresh meat.

- On average, respondents to the consumer survey eat meat and meat products 190 days a year, or every second day. Consumers in the EU12 eat meat more often than their EU15 counterparts, with 217 days on average. This figure is driven by high averages for meat products, chicken and pork. In contrast, the consumption frequency of beef, turkey, veal and lamb is slightly higher in the EU15.

A clear gap can be seen between consumer intention and behaviour. Prices, but also information, are key factors to explain this difference. Almost a quarter of consumers report waste; it is often linked to the consumer's own behaviour and could be avoided. The related consumer detriment remains limited.

Research questions

What do consumers understand about the safety/quality/health/sustainability/animal welfare/origin of meat and how does this impact their purchase behaviour? How many times per week/kg on average do consumers consume meat and what is their perception of their weekly meat intake?

In this chapter, we will first look at the gap between intention and behaviour, before looking in details at consumption trends, consumers' intention to buy meat more or less often and consumer behaviour in terms of purchases, consumption and waste.

9.1 Gap between consumer intention and behaviour

The **gap between intention and behaviour** can be seen in the fact that willingness to purchase sustainable products does not always transfer into actual behaviour. Many reasons may explain this, among which **higher prices, limited availability and a lack of information** (Brennan, 2003) **or limited trust in labelling systems** (OECD, 2008). The trade-off between price and quality needs to be sufficiently favourable to induce behaviour. Research indicates that consumers are ready to pay prices for organic products 15-20% above regular prices (OECD 2008). Interestingly, organic products were the most expensive in the 2011 price audit conducted as part of this study as their price was 66% higher than the price of regular products**.**

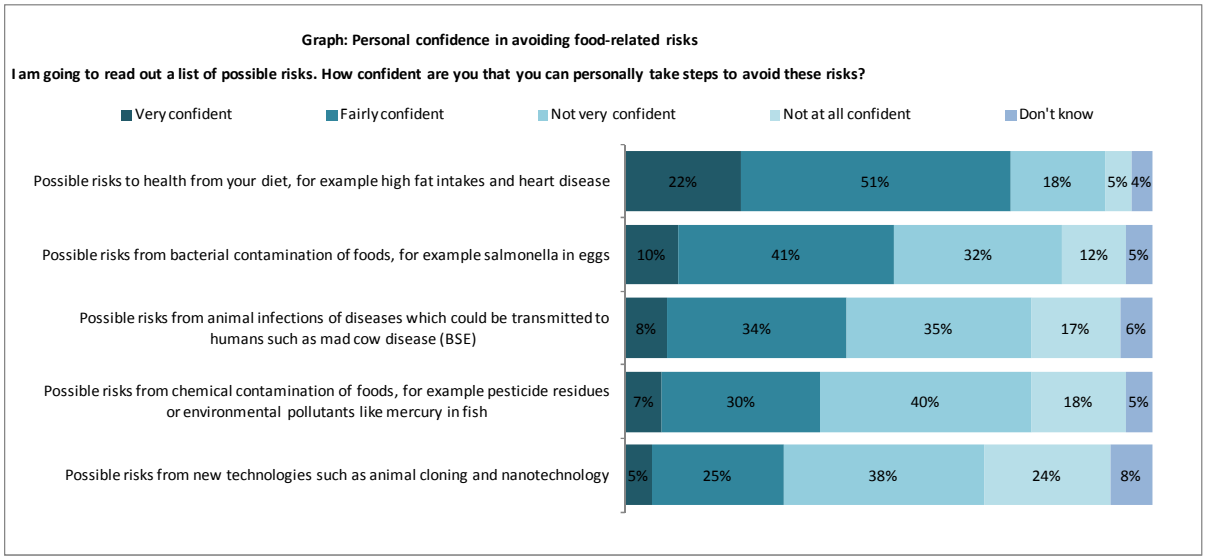
Another approach to the discrepancy between intention and behaviour is consumers' reluctance to take responsibility for their purchase actions. As pointed out earlier regarding the intention of purchasing animal welfare certified products, research shows that many consumers avoid thinking about animals when buying meat. As a result, increasing knowledge of animal welfare may not be enough to change consumer behaviour (Hoogland, 2005).

The results of the Flash Eurobarometer 256 (2009) illustrate the discrepancy between consumers' attitudes and behaviour from another perspective. 83% of EU consumers claim that the products' impact on the environment is important for them when making a decision on what products to buy. However, only 21% of them mention this item when asked about the actions that would have the highest impact on solving environmental problems. This 'environmental free-riding' (Demuijnck, 2004) illustrates further the finding that many consumers are not aware of their own responsibility as consumers.

This is particularly the case for food safety. Considerable attention has been paid on various factors that impact EU consumers' safety perceptions and the form and channel of information that should be provided to consumers in order to better empower them to make informed choices when purchasing meat in respect of safety. However, very little attention is given to consumers themselves, who can be responsible for a bacterial contamination resulting from mishandling the meat. Consumers tend to think that the responsibility of safety belongs to experts and authorities and many of them are not interested in more detailed information regarding for example the traceability of meat (Wezemael et al., 2010).

Figure 47. depicts consumers' confidence in personally taking steps to avoid a number of risks. Overall, EU consumers tend to feel relatively powerless when facing external risks such as animal diseases, chemical contamination and the use of new technologies. At the other end of the scale, 73% of EU consumers believe they can make a difference when it comes to possible risks linked to their diets.

Figure 47. Personal confidence in avoiding food-related risks



(Special Eurobarometer 354)

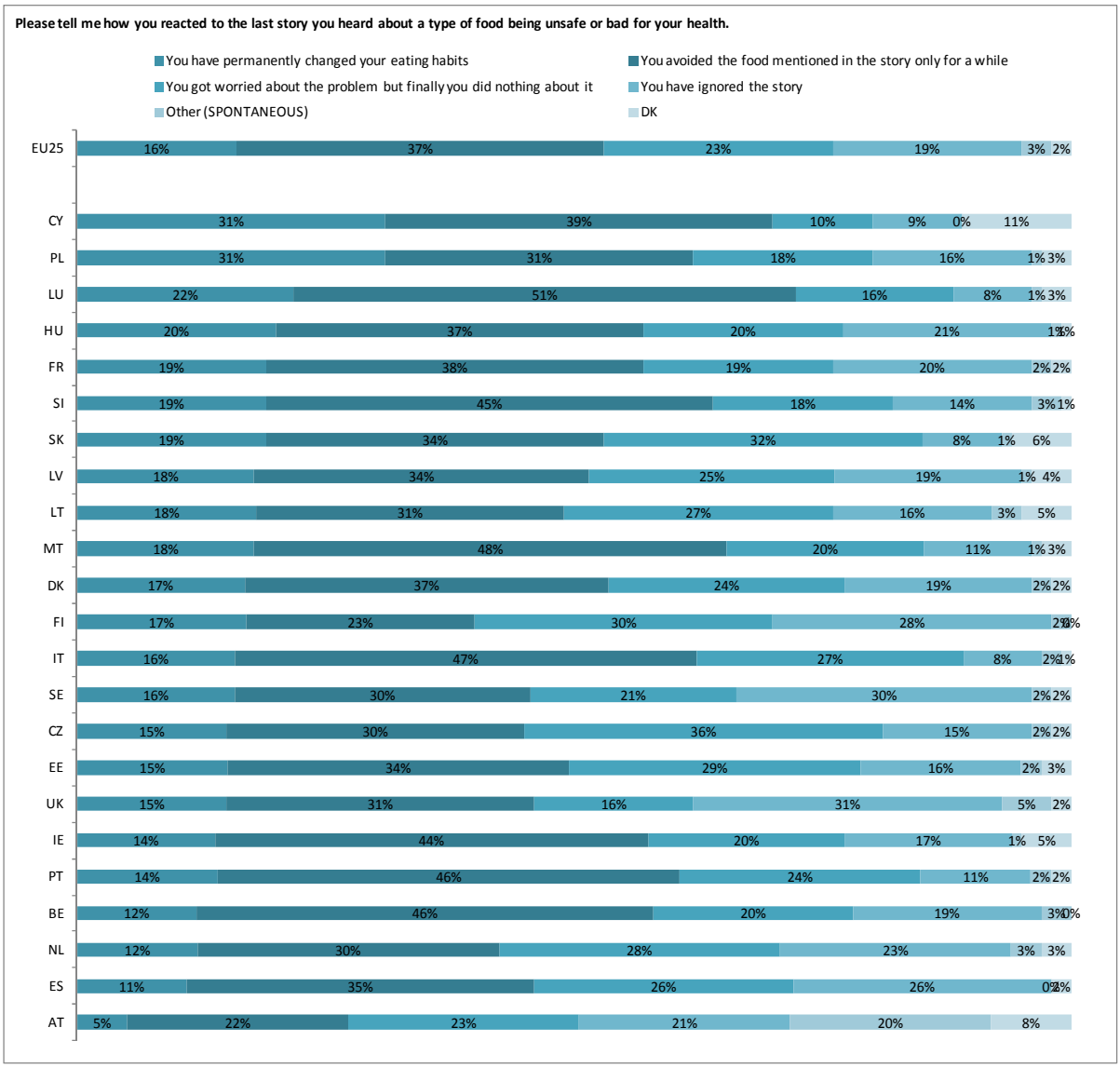
9.2 Current trends in meat consumption

Consumption habits are changing due to a number of reasons: **changing consumer taste and preferences, food safety crises, negative media attention** and the lack of responsiveness of the meat sector (Verbeke, 2010).

First, nutrition and health concerns seem to have an impact on consumer preferences. An American study on dietary knowledge (Yen & Davis, 2008) concluded that **dietary knowledge decreases consumption** of beef and pork at home and away from home compared to poultry, fish, fruits and vegetables. Besides, the results of a Eurobarometer survey carried out in 2006 (Special Eurobarometer 246, 2006) show that health concerns may influence consumer behaviour. A majority of the respondents who have changed what they eat or drink over the last year declared that they eat more vegetables (55%) and less fat (53%). Several other changes were also mentioned: drinking more water (43%), eating less sugar (39%) and fewer calories (38%). In comparison, 20% said they eat less meat.

Secondly, the results of a Eurobarometer study carried out in 2006 (Special Eurobarometer 238, 2006) indicate that **the media attention on food safety has an effect on consumers' declared behaviour** (Figure 48.). A majority of consumers who recall having seen or heard media reports on unsafe or unhealthy food say that they have changed their eating habits to some extent. 16% say they permanently changed their eating habits, while 37% say they avoided the food mentioned in the story only for a while. A minority (19%) ignored what they heard and 23% were worried about the problem but did nothing about it. These findings match the results of the 2011 consumer survey. It included an agreement question on whether a media story on meat being unsafe had changed consumers' eating habits. 21% of respondents agreed (scores 8 to 10 out of 10), while 39% disagreed (scores 0 to 4 out of 10). Besides, both EU-level and national stakeholders mentioned the impact of food scandals on the meat market and the challenges it creates for the meat chain.

Figure 48. Reaction on latest story heard about a type of food being unsafe or bad for your health



(Special Eurobarometer 238)

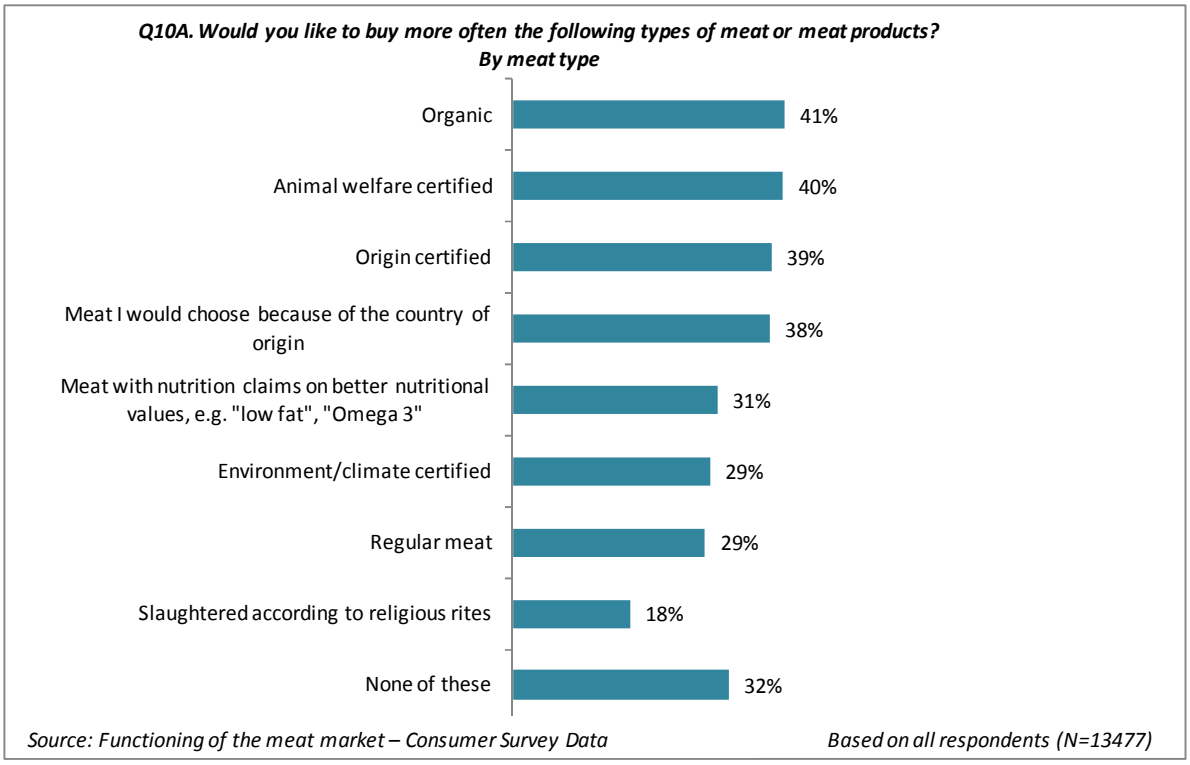
Relatively large differences can be observed when it comes to the reported impact of media stories regarding food safety issues. While nearly a third of Cypriot and Polish consumers claim they have permanently changed their consumer behaviour, a similar proportion of consumers in the UK and Sweden report they ignored the stories altogether.

9.3 Consumer intention to buy specific types of meat

9.3.1 Overall results

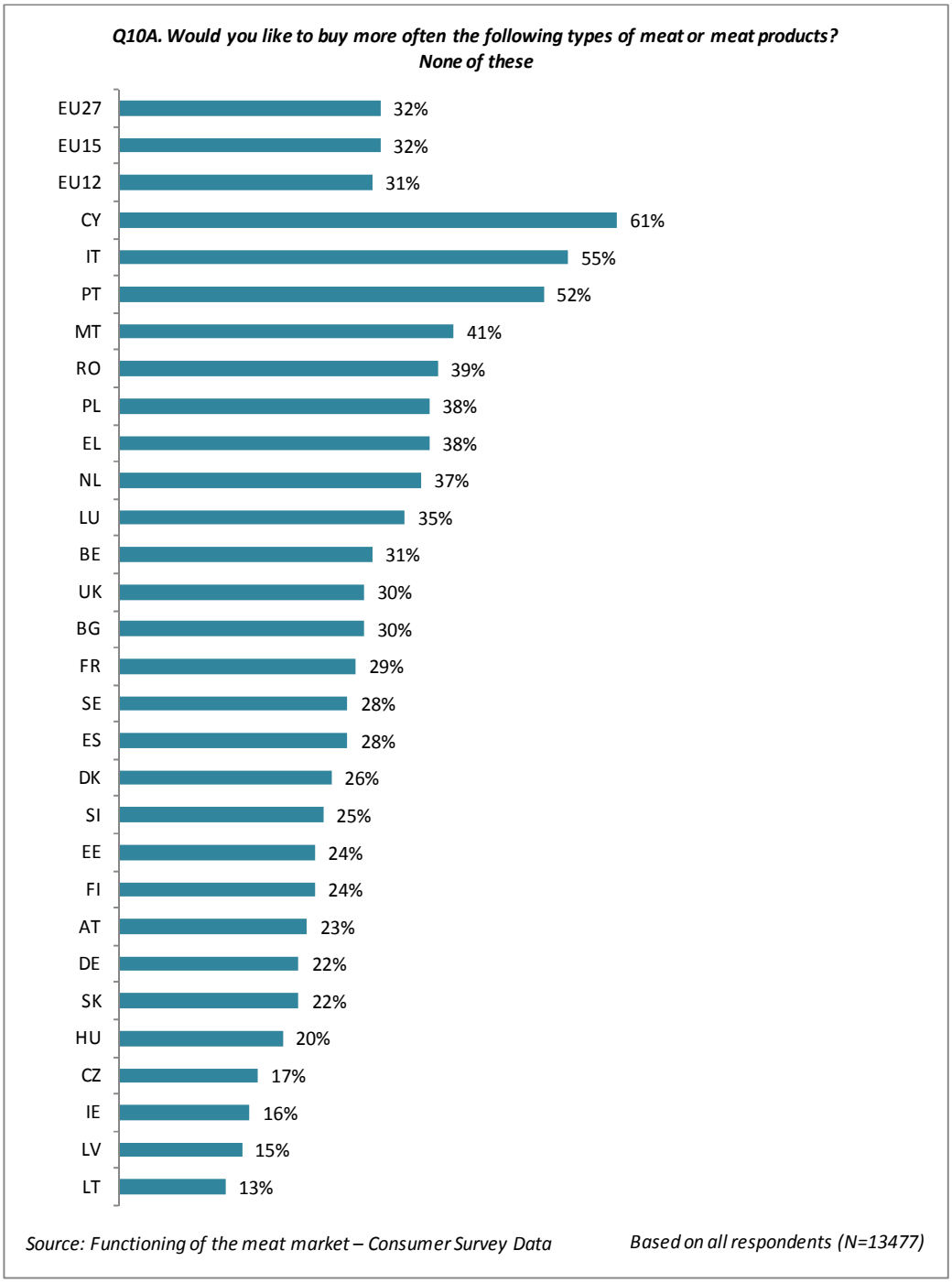
68% of EU consumers say they would like to change their purchases and buy at least one specific type of meat more often (Figure 49.). About two in five respondents would like to buy more **organic** meat (41%), **animal welfare certified** meat (40%), **origin certified** meat (39%) or meat they would choose because of **the country of origin** (38%). Only a third of consumers do not wish to buy any specific type of meat more often. Intention to buy meat more often does not indicate that consumers would like to increase their meat purchases in total. It refers to possible desired changes in the structure of consumers' meat purchases.

Figure 49. Q10A. Would like to buy meat more often – By meat type



When looking at consumers' intention not to change their purchases in terms of types of meat, large variations between Member States can be observed (Figure 50.). More than half of consumers in Cyprus (61%), Italy (55%) and Portugal (52%) answered 'None of these' when asked whether they would like to buy particular types of meat more often. In contrast, this proportion is below 20% in Lithuania (13%), Latvia (15%), Ireland (16%) and the Czech Republic (17%).

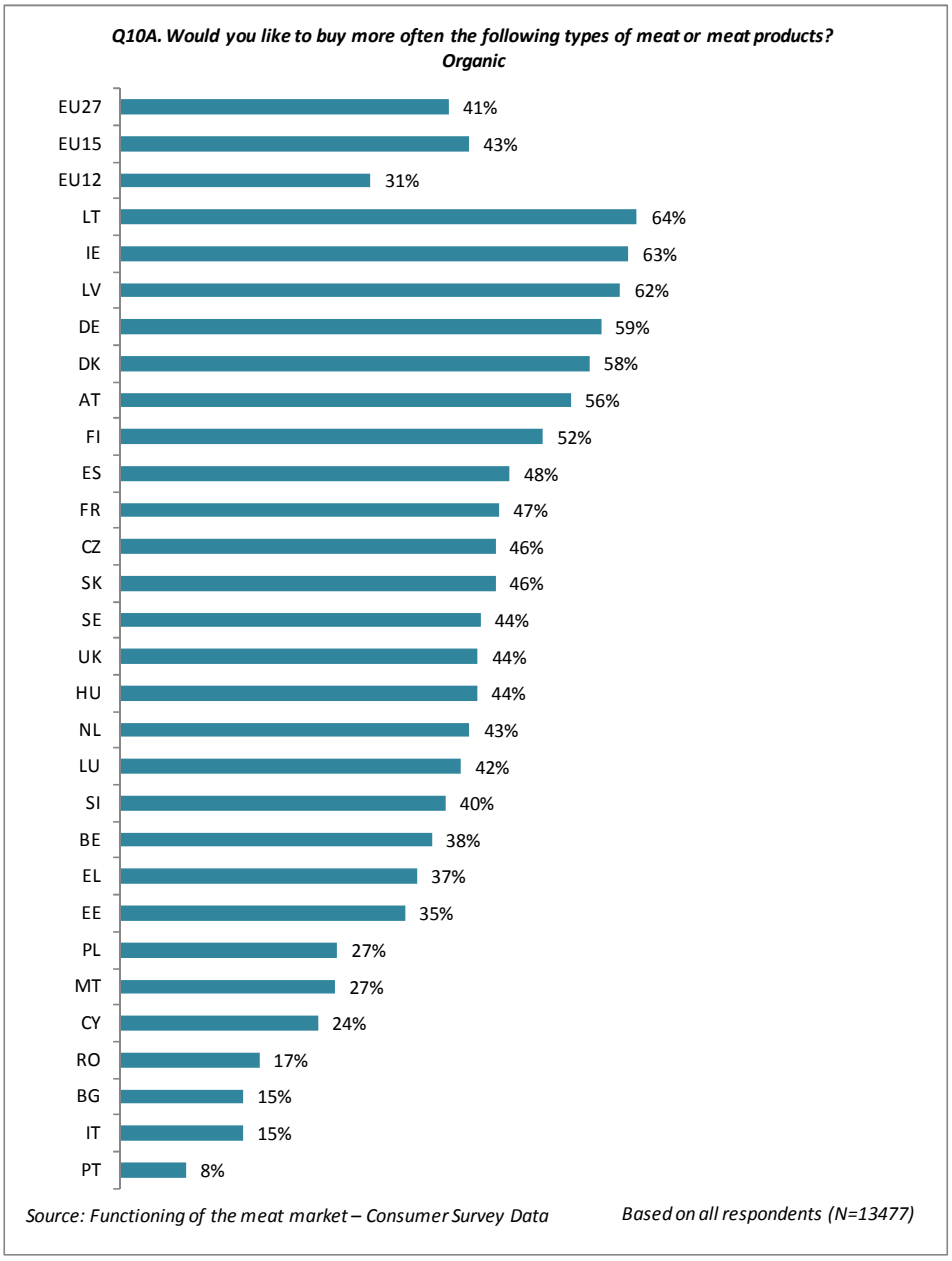
Figure 50. Q10A. Would like to buy meat more often – None of these



9.3.2 Organic meat

We will now look in more details at consumer's purchase intentions. **41% of consumers would like to purchase organic meat more often** (Figure 51.). There is a clear distinction between the EU15 (43%) and the EU12 (31%) countries, with consumers in the latter group being significantly less likely to say they would like to buy more often organic meat. Furthermore, large variations exist between countries. The results range from 8% in Portugal to 64% in Lithuania.

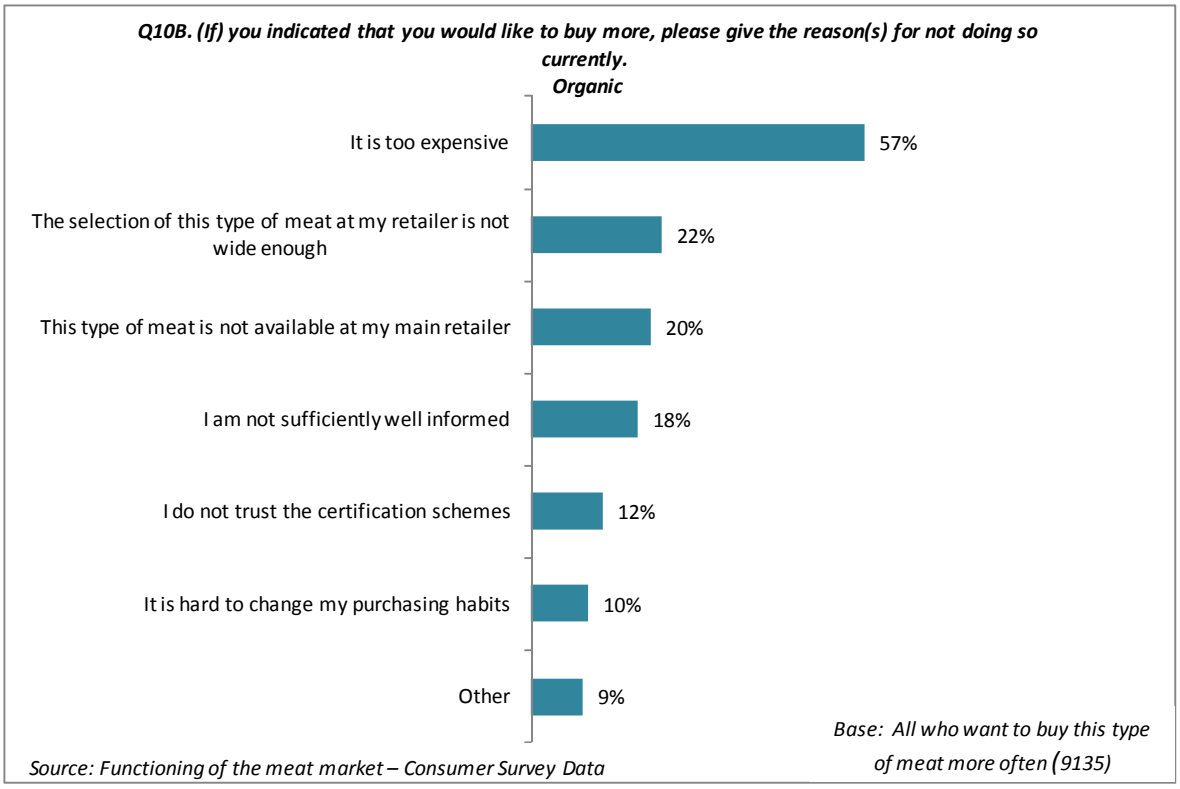
Figure 51. Q10A. Would like to buy meat more often – Organic



As shown on Figure 52., EU consumers **name price as the main reason for not purchasing organic meat more often** (57%). Choice of products (22%) and overall availability (20%) at the retailer follow next with considerably fewer mentions. The results show that trust in certification schemes does not seem to play an important role in this respect (12%) and relatively few consumers (18%) feel uninformed about organic meat.

Consumers in the EU12 are more likely than consumers in the EU15 to say organic meat is not available at their main retailer (36% compared with 17%) or that they are not sufficiently well informed (22% compared with 17%). EU15 consumers are more likely to say that organic meat is too expensive (58% compared with 48% in the EU12), that is hard to change their habits (10% compared with 7%) or that they do not trust certifications (12% compared with 10%).[63]

Figure 52. Q10B. Reasons for not currently buying more of this type of meat – Organic

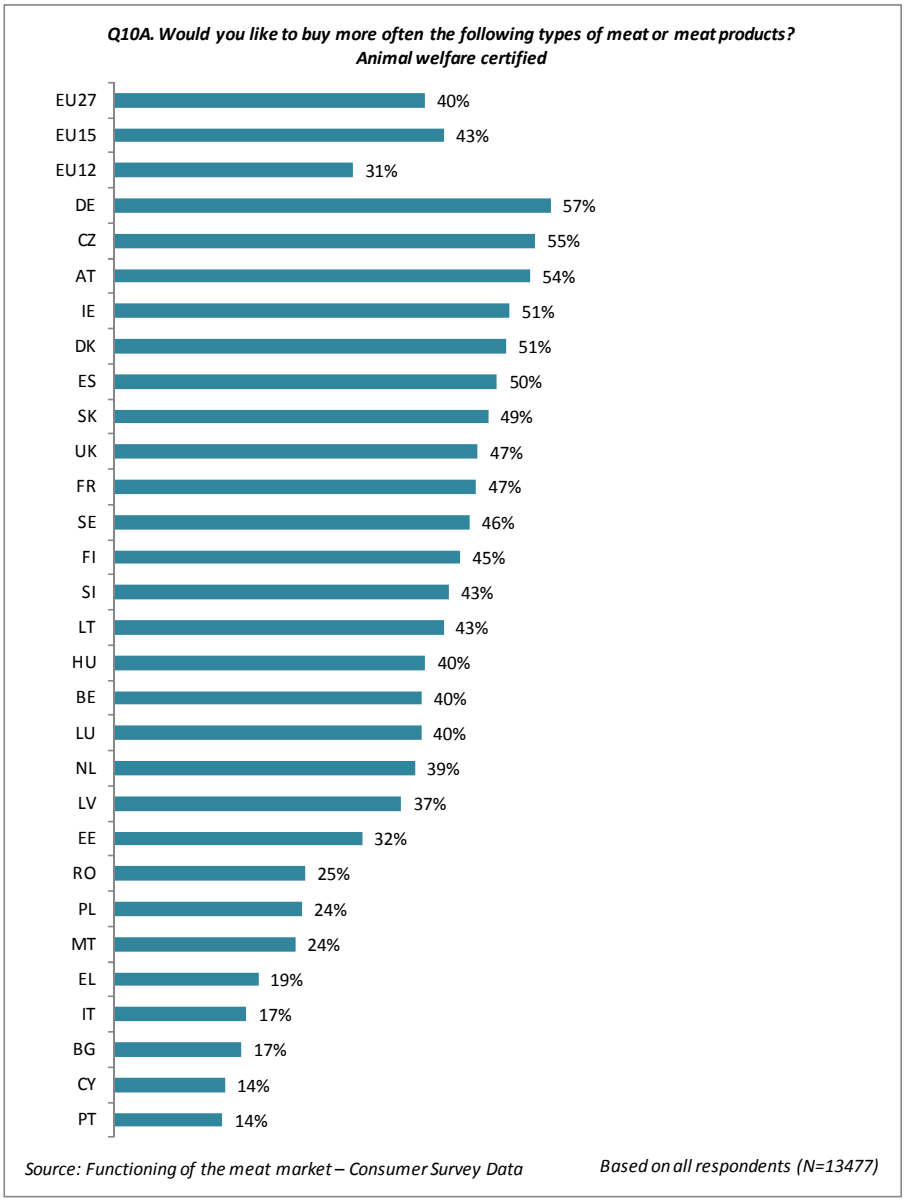


9.3.3 Animal welfare certified meat

As shown on Figure 53., **40% of consumers would like to purchase animal welfare certified meat more often**, with a large gap observed between the EU15 (43%) and EU12 countries (31%). At the highest end, the majority of consumers in Germany, the Czech Republic, Austria, Ireland and Denmark would like to purchase more often such meat, while only 14% of consumers in Cyprus and Portugal say so.

[63] Please see details in the consumer survey's technical report.

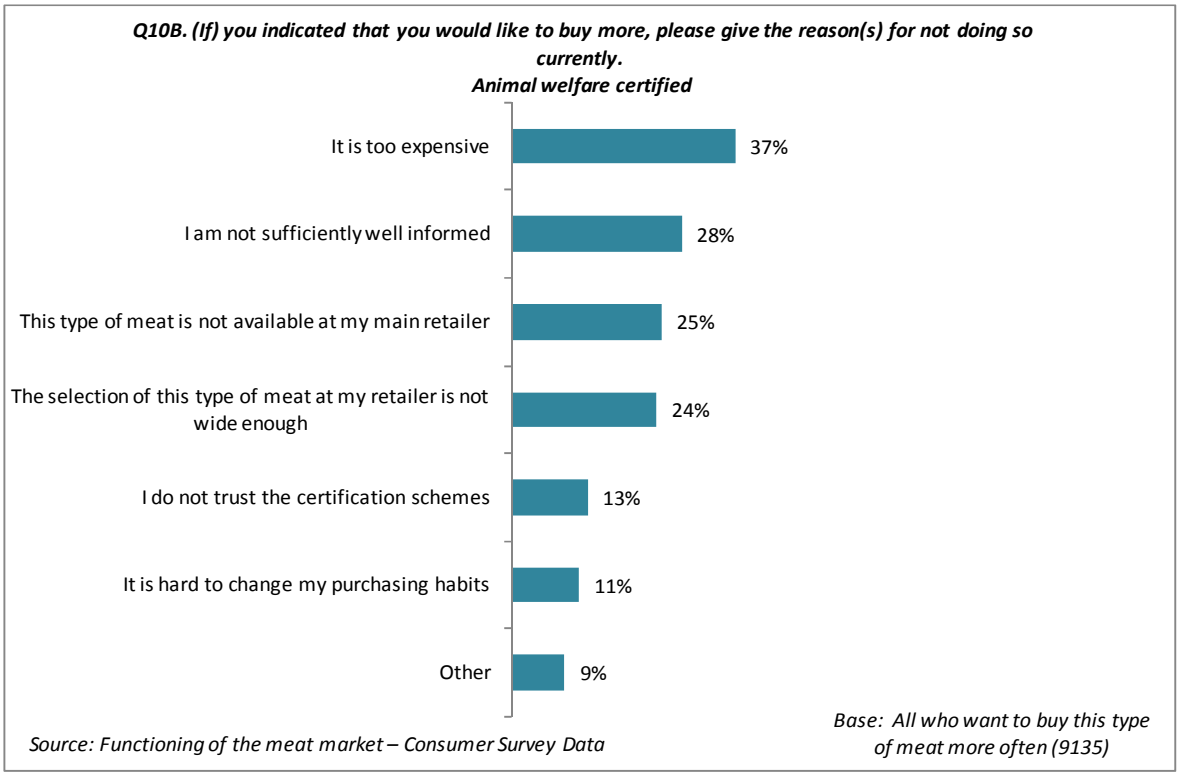
Figure 53. Q10A. Would like to buy meat more often – Animal welfare certified



37% consumers name price as the main reason for not purchasing more often animal welfare certified meat (Figure 54.)**.** 28% do not feel sufficiently well informed. Availability (25%) and selection (24%) at the main retailer are issues for a quarter of EU consumers. Only a few consumers do not purchase animal welfare certified meat because they do not trust the certification schemes (13%).

Consumers in the EU15 are more likely than EU12 consumers to say that animal welfare certified meat is too expensive (38% compared with 29% in the EU12), that the choice is not wide enough (24% compared with 21%) or that it is hard to change their habits (11% compared with 9%). EU12 consumers are more likely to say that this type of meat is not available at their main retailer (35% compared with 23% in the EU15) and that they are not sufficiently well informed (32% compared with 27%).[64]

Figure 54. Q10B. Reasons for not currently buying more of this type of meat – Animal welfare certified



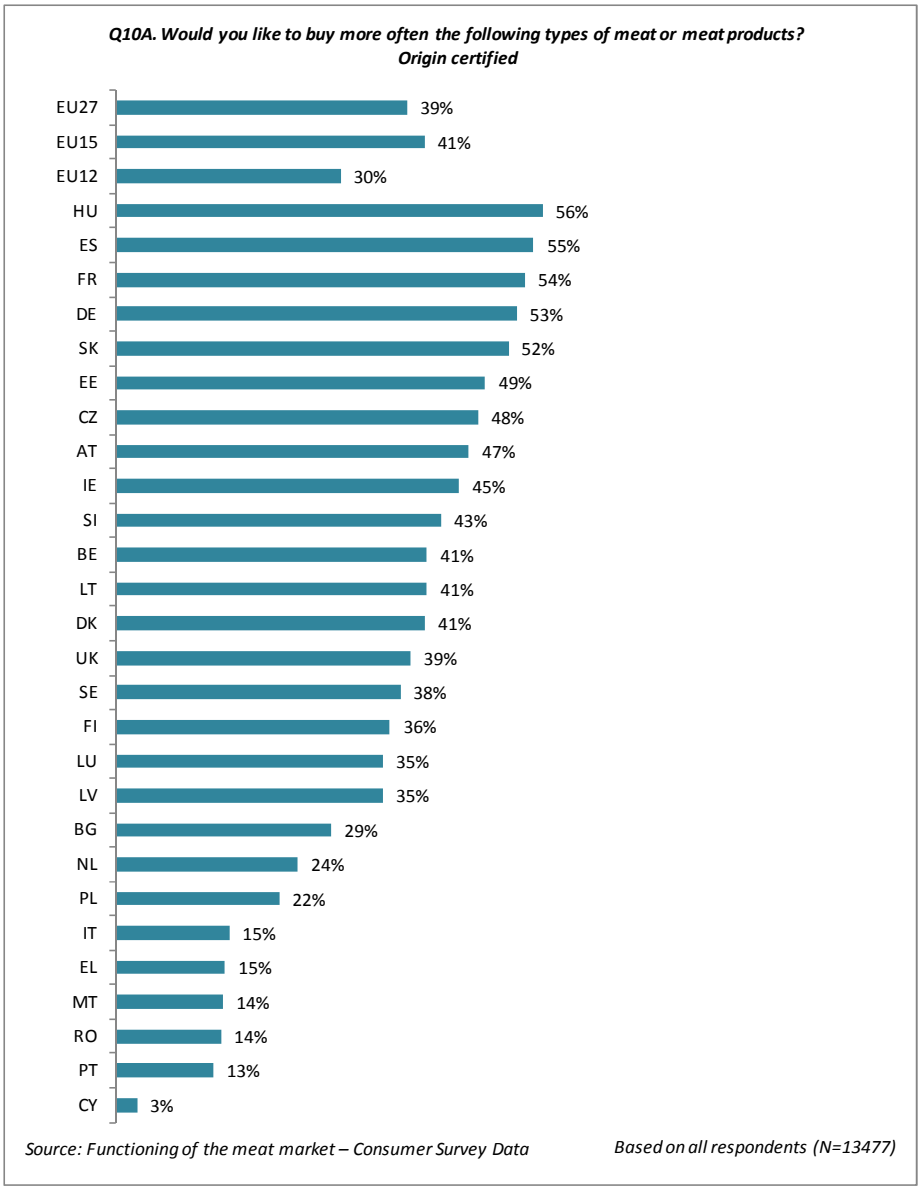
9.3.4 Origin certified meat

39% of EU consumers would like to purchase origin certified meat[65] **more often** (Figure 55.). Consumers in the EU15 are considerably more likely to have such desire than consumers in the EU12 countries (41% vs. 30%). Once again, large variations exist between the countries with the majority of Hungarian, Spanish,

[64] Please see details in the consumer survey's technical report.
65 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.

French, German and Slovakian consumers willing to purchase origin certified meat more often as opposed to 3% Cypriot consumers.

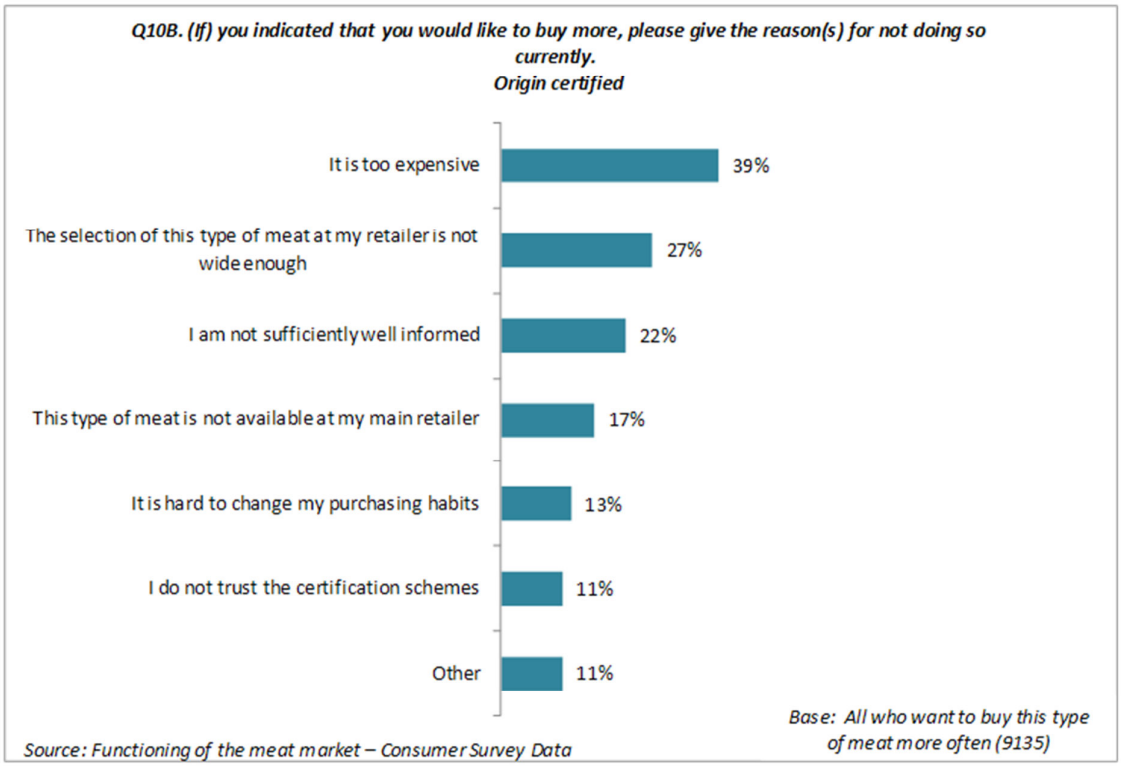
Figure 55. Q10A. Would like to buy meat more often – Origin certified



EU consumers name price (39%) as the main reason for not purchasing origin certified meat more often (Figure 56.)**.** 27% consider the selection at their retailer insufficient and 22% feel insufficiently informed about origin certified meat.

EU12 consumers are more likely to say that this type of meat is not available at their main retailer than EU15 consumers (19% in the EU12 compared with 16%). In contrast, EU15 consumers are more likely to say that it is hard to change their habits than EU12 consumers (13% compared with 11%).[66]

Figure 56. Q10B. Reasons for not currently buying more of this type of meat - Origin certified



[66] Please see details in the consumer survey's technical report.

9.3.5 Other meat types

38% of consumers would like to buy meat they would choose **because of the country of origin** more often. This is the case for 41% of EU15 consumers and 30% of EU12 consumers. When asked why they do not buy this type of meat more often, 35% of these consumers mention expensive prices. A further 26% and 24% respectively mention a lack of choice and a lack of information. [67]

Just under a third (31%) of consumers would like to buy **meat with nutrition claims on better nutritional values** more often. They mention expensive prices (31%), a lack of information (28%), a lack of choice (25%) and a lack of availability (22%) as reasons for not doing so. [68]

29% of consumers would like to buy **environment or climate certified meat** more often. This proportion is almost a third (32%) in EU15 countries and 18% in EU12 countries. Around one third of these consumers (34%) mention a lack of information. Another third (32%) mention expensive prices. [69]

29% of consumers would like to buy **regular meat** more often. Around one third of these consumers (32%) mentions expensive prices. The next most common answer, with 23%, is the difficulty to change purchasing habits. [70]

Finally, 18% of consumers say they would like to buy **meat slaughtered according to religious rites** more often. This proportion is 20% in EU15 countries and 10% in NMS12 countries. Over a third of consumers who would like to buy this type of meat more often (35%) mentions a lack of information. A further 28% mentions a lack of availability. [71]

9.3.6 Results by socio-demographic category

We comment below on significant differences between the socio-demographic categories shown on Figure 57..

Urban consumers (40.6%) are more likely than rural consumers (35.3%) to say they would like to buy **meat they choose because of the country of origin** more often. Low frequency consumers (34.5%) are less likely to say they would like to buy this meat type more often than high (40.4%) and middle (38.8%) frequency consumers.

Women (43.0%) are more likely than men (37.4%) to say they would like to buy **animal welfare certified meat** more often. Consumers aged 18-34 (43.2%) and 35-54 (41.6%) are more likely to say they would like to buy this meat type more often, in comparison with people aged 55-75 (36.1%). Urban consumers (42.7%) are more likely than rural consumers (37.2%) to say they would like to buy animal welfare certified meat more often.

Men (18.7%) are more likely than women (16.4%) to say they would like to buy **meat slaughtered according to religious rites** more often. This is also the case for urban consumers (19.6%) in comparison with rural consumers (14.7%).

[67] Please see details in the consumer survey's technical report.
[68] Please see details in the consumer survey's technical report.
[69] Please see details in the consumer survey's technical report.
[70] Please see details in the consumer survey's technical report.
[71] Please see details in the consumer survey's technical report.

Women (42.5%) are more likely than men (38.4%) to say they would like to buy **organic meat** more often. Respondents aged 18-34 (43.8%) and 35-54 (42.8%) are also more likely to want to buy this meat type more often, in comparison with consumers aged 55-75 (34.6%). Urban consumers (44.2%) are more likely than rural consumers (35.6%) to say they would like to buy organic meat more often. High frequency consumers (45.3%) are more likely to say they want to increase their organic meat purchase frequency than middle (39.4%) and low (40.1%) frequency consumers.

Consumers aged 18-34 (32.7%) and 35-54 (30.3%) are more likely than consumers aged 55-75 (25.4%) to say they would like to buy **environment or climate certified meat** more often. Urban consumers (32.2%) are also more likely to say they would like to buy this type of meat more often, in comparison with rural consumers (25.8%). High frequency consumers (32.4%) are more likely to say they would like to buy this type of meat more often than middle (29.0%) and low (28.0%) frequency consumers.

Urban consumers (40.3%) are more likely to say they would like to buy **origin certified meat** more often, in comparison with rural consumers (36.0%). Low frequency consumers (34.2%) are less likely to say they would like to purchase origin certified meat more often than high (41.5%) and middle (38.8%) frequency consumers.

Consumers aged 18-34 (33.1%) are more likely to say they would like to buy **meat with nutrition claims on better nutritional values** more often, in comparison with consumers aged 35-54 (30.0%) and 55-75 (28.7%). Urban consumers (32.2%) are also more likely to say they would like to buy this type of meat more often, in comparison with rural consumers (28.1%). High frequency consumers (35.6%) are more likely to say they would like to buy this meat type more often than middle (30.0%) and low (27.3%) frequency consumers.

Men (30.5%) are more likely than women (26.9%) to say they would like to buy **regular meat** more often. Urban consumers (30.2%) are more likely to say they would like to buy regular meat more often, in comparison with rural consumers (26.6%). High frequency consumers (32.8%) are more likely to say they would like to buy this type of meat more often than middle (28.3%) and low (26.0%) frequency consumers.

Looking at consumers who would like to buy **any type of meat** more often, women (69.1%) are more likely to fall into this category than men (66.4%). Consumers aged 18-34 (71.0%) and 35-54 (70.0%) are also more likely to belong to this category than people aged 55-75 (62.0%). Urban consumers (70.3%) are also more likely than rural consumers (64.4%) to say they would like to buy at least one meat type more often. Finally, low frequency consumers (70.9%) are less likely to say they would like to buy any meat type more often than high (68.4%) and middle (62.0%) frequency consumers.

In summary, young consumers, urban consumers and high frequency consumers are more likely than others to say they would like to buy a range of meat types more often. Women are more likely to mention animal welfare certified and organic meat, and men religious slaughter and regular meat.

Figure 57. Would you like to buy more often the following types of meat or meat products?

Q10A. Would you like to buy more often the following types of meat or meat products?	GENDER			AGE			AREA		EATING FREQUENCY		
	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL	High	Middle	Low
Basesize	**13477**	**6298**	**7179**	**3948**	**5518**	**4011**	**7575**	**5902**	**2623**	**8820**	**2034**
Meat I would choose because of the country of origin	38.3%	39.4%	37.3%	38.3%	38.8%	37.7%	40.6%	35.3%	40.4%	38.8%	34.5%
Animal welfare certified	40.3%	37.4%	43%	43.2%	41.6%	36.1%	42.7%	37.2%	41.8%	40.6%	37.9%
Slaughtered according to religious rites	17.5%	18.7%	16.4%	19%	17.5%	16.2%	19.6%	14.7%	20%	17%	17%
Organic	40.5%	38.4%	42.5%	43.8%	42.8%	34.6%	44.2%	35.6%	45.3%	39.4%	40.1%
Environment/climate certified	29.4%	28.7%	30.2%	32.7%	30.3%	25.4%	32.2%	25.8%	32.4%	29%	28%
Origin certified	38.5%	38.4%	38.5%	38.2%	39.6%	37.2%	40.3%	36%	41.5%	38.8%	34.2%
Meat with nutrition claims on better nutritional values. e.g. "low fat". "Omega 3"	30.5%	30%	30.9%	33.1%	30%	28.7%	32.2%	28.1%	35.6%	30%	27.3%
Regular meat	28.7%	30.5%	26.9%	28.7%	28%	29.4%	30.2%	26.6%	32.8%	28.3%	26%
None of these	32.2%	33.6%	30.9%	29%	30%	38%	29.7%	35.6%	29.1%	31.6%	38%
Would like to buy any more often'	**67.8%**	**66.4%**	**69.1%**	**71%**	**70%**	**62%**	**70.3%**	**64.4%**	**70.9%**	**68.4%**	**62%**

9.3.7 Price differential between regular and specific meat types

Given the rather high proportion of consumers who mention price when asked why they do not buy specific meat types more often, it is useful to look at the actual differences between prices of regular meat and other meat types collected in the price audit, in comparison with consumer purchase behaviour.

Figure 58. shows the results of this comparison. The price indexes show the difference in price between specific and regular meat, with the price of regular meat in each country or country grouping set at 100 . The purchase column shows the proportion of consumers who say they have purchased this product type in the past month. Due to low base sizes for the price data, only a sample of countries could be included and only prices of origin certified meat were analysed at a country level.

However, this is sufficient to show that there is no clear pattern linking the price differentials between regular meat and organic or origin certified meat (the price indexes) with purchases of these types of meat in particular countries or country groupings.

The analysis of prices presented in the consumer prices chapter divides EU Member States[72] into three groups as regards the prices of meat:

- **High price countries**: Austria, Belgium, Denmark, Germany, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Sweden and the UK,
- **Medium price countries**: Cyprus, Greece, Malta, Portugal and Spain
- **Low price countries**: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.

Figure 58. presents a limited number of countries, however the countries listed are also grouped according to the level of meat prices. As regards organic meat, there is little difference in share of consumers who buy this type of meat between the three country grouping. This proportion is slightly smaller in low price countries and slightly higher in high price countries.

For origin certified meat, although the price indexes differ between the three country groupings, they all have similar profiles in terms of shares of consumers buying this type of meat. Besides, countries such as Belgium and Germany have a high price differential and a high proportion of purchases, while other countries, for instance Greece and Finland, have smaller price differentials but relatively low proportions of purchases.

[72] Please note that Slovenia is not included in the list as no data was available for the analysis.

Figure 58. Price differential between regular and organic/origin certified meat and purchase behaviour[73]

	Organic		Origin certified	
	Price index (regular = 100)	Share of consumers who purchased this type in the past month	Price index (regular = 100)	Share of consumers who purchased this type in the past month
High price countries	141	19%	106	33%
Medium price countries	157	11%	126	35%
Low price countries	118	8%	103	28%
COUNTRY				
BE			124	49%
IT			119	26%
DK			118	20%
SE			113	24%
DE			113	39%
UK			111	32%
FR			111	40%
IE			106	38%
FI			105	7%
EL			102	18%
EE			101	51%
HU			99	68%
SK			93	53%

[73] The price index columns show the difference in price between regular and specific meat, with the price of regular meat for each row set at 100.

9.3.8 Grouping of meat types according to consumer purchase intentions

After looking into the willingness of consumers to buy more often meat or meat products in the EU, we are going to look more in detail into their perceptions by analysing further questions 10a and b.[74] We ran a principal component analysis (PCA) on these two questions to identify groups of products that consumers want to buy more of, and to group together the reasons consumers give for not currently buying more of these meat types.

'None of these' was left out, as the analysis focuses on consumers who want to buy meat more often. Figure 59. and the screeplot clearly show that a two factor solution gives us the best information in this case. Besides, these two factors explain 68% of the variance which means that 8 items were reduced to two losing only 32 % of the 100 % that can be explained using the entire question and hence all the items. As explained in the annexes to this report, this reduction is paramount if one wants to look into relationships between concepts.

As in the motivation PCA, the first component for question 10a (Ethical column in the table below) is **ethical**. It includes organic, animal welfare certified and environment/climate certified meat (.840; .801; .735).

A PCA was also run on question 10b, which asks consumers for their reasons for not currently buying meat more often. Interestingly, we also find an ethical component in this analysis, which explains 54% of the variance.

The second component of question 10a includes several types of meat: **country of origin specified, regular meat and special slaughter meat (.647; .882; .718)**. Religious slaughter meat does not seem to fit in with the other types of meat in this component. However, it can be argued that in some locations or retailers, religious slaughter meat is usual or even the only meat on offer and hence is considered 'regular' meat. This second factor is also visible in the PCA run on question 10b.

[74] Q10A. Would you like to buy more often the following types of meat or meat products?
Q10B. (If) you indicated that you would like to buy more, please give the reason(s) for not doing so currently.

Q10C. And in general would you like to buy meat or meat products less often?

Q10D. (If) you indicated that you would like to buy meat less often, please give the reason(s) why you would like to reduce your meat consumption.

Figure 59. Would you like to buy more often the following types of meat or meat products?

	Component	
	Ethical	General
q10a_4 Would you like to buy more often the following types of meat or meat products? Organic	0.840	0.189
q10a_2 Would you like to buy more often the following types of meat or meat products? Animal welfare certified	0.801	0.274
q10a_5 Would you like to buy more often the following types of meat or meat products? Environment/climate certified	0.735	0.443
q10a_6 Would you like to buy more often the following types of meat or meat products? Origin certified	0.579	0.524
q10a_8 Would you like to buy more often the following types of meat or meat products? Regular meat	0.117	0.882
q10a_3 Would you like to buy more often the following types of meat or meat products? Slaughtered according to religious rites (for example Halal or Kosher)	0.412	0.718
q10a_1 Would you like to buy more often the following types of meat or meat products? Meat I would choose because of the country of origin	0.384	0.647
q10a_7 Would you like to buy more often the following types of meat or meat products? Meat with nutrition claims on better nutritional values	0.506	0.610

Simple sum scales were created based on the analysis above, by adding item scores then dividing them by the total number of items (for the exact calculations see annex I). These sum scales contain three items for 'special/ethical' meat and two items for 'regular/general' meat. We included only two for regular meat because we above already argued that theoretically slaughtered according to religious rites does not really fit in this component. While we also argue that the occurrence of this item in the factor is possibly due to specific situations in (larger, older) EU member states it is better to leave this item out of the sum scale. We also leave out the item about nutritional values as one statistically can distinguish a large cross loading. This means that this item can belong in the two components (high score on both – .506 and .610- and hence not really discriminatory). Upon inclusion in one or the other component scale it would only make this scale weaker. That is why we decide only to include only two items in the general scale, setting aside the items that do not fit theoretically or statistically (due to low discriminatory value).

Figures 60. and 61. show the sum scales: the first column shows the score and the second column the proportion of consumers who obtained each score. Figure 60. shows the sum scale for special meat, figure 61. for regular meat.

Consumers with a low score (close to 0) are more satisfied with the amount of meat they are currently buying, while higher scores indicate consumers who are not currently buying as much meat as they would like. The sums scales show that 92% of consumers are satisfied with their purchase of regular meat, while 84% are satisfied with their purchase of special meat types.

Although this proportion is lower for special meat types, these findings point to the fact that consumers are overall satisfied with the quantity of meat they currently purchase and therefore with the meat available to them.

Figure 60. Non-availability – Specific (ethical) meat types

Non-available – Specific (ethical) meat types	
Score	**Proportion of consumers**
0	83.9%
0.33	9.8%
0.67	3.5%
1	2.9%

Figure 61. Non-availability – General/regular

Non-available – General/regular	
Score	**Proportion of consumers**
0	92.0%
0.50	6.1%
1	1.9%

9.4 Intention to buy meat less often

9.4.1 Overall results

Around one third of consumers (32%) would like to buy meat less often (Figure 62.)**.** This proportion is **higher among EU15 consumers**, with 34%, than among EU12 consumers, with 23%.

Consumers with self-reported financial difficulties are more likely than other consumers to say they would like to buy meat less often, with 34%, compared with 30%.

Czech (50%) and Lithuanian (48%) consumers are the most likely to say they would like to buy meat less often. Bulgarian (11%) and Polish (14%) consumers are the least likely to say so.

Figure 62. Q10C. Would like to buy meat less often

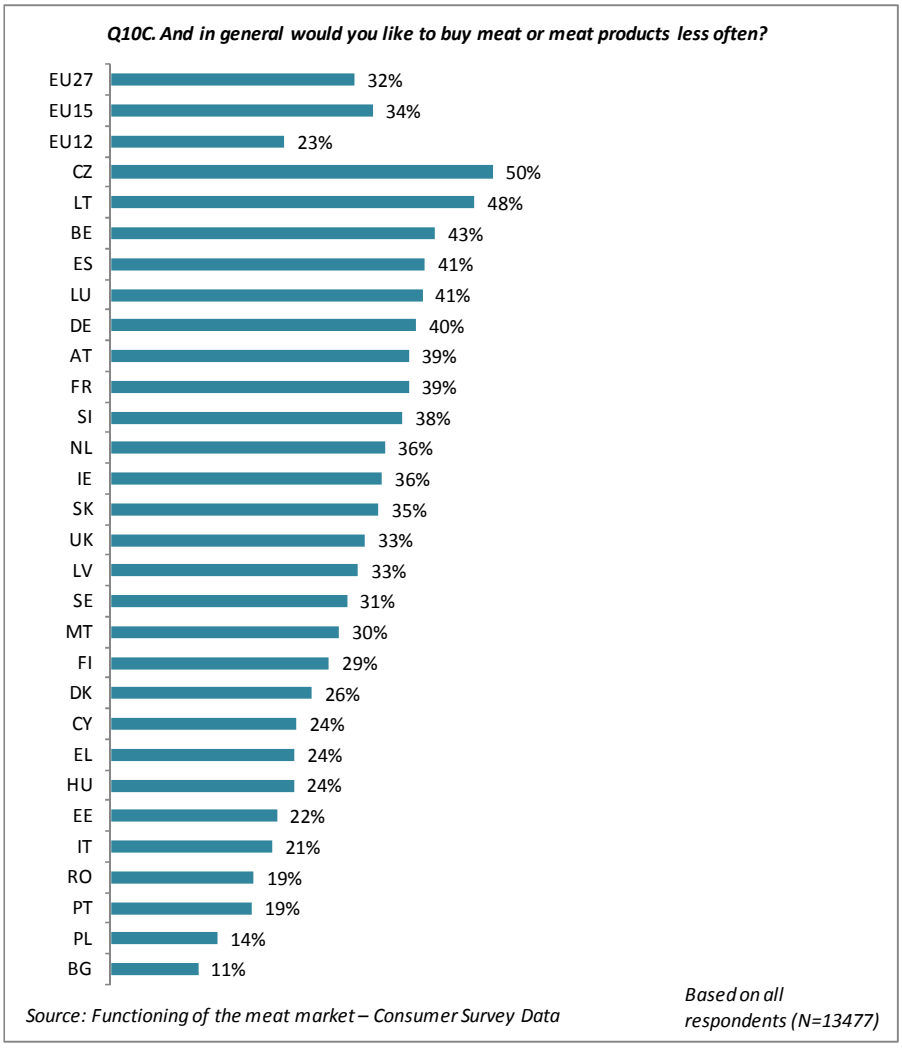


Figure 63. shows the results by socio-demographic characteristics. **Urban consumers** (34.4%) **are more likely to say they would like to buy meat or meat products less often than rural consumers** (28.6%). Low frequency consumers (36.2%) are more likely to say they would like to buy meat or meat products less often than high (30.9%) and middle (31.1%) frequency consumers.

Figure 63. Q10C. Intention to buy meat or meat products less often – by socio-demographic characteristics

Q10C. And in general would you like to buy meat or meat products less often?		AREA		EATING FREQUENCY		
	EU27	URBAN	RURAL	High	Middle	Low
Basesize	**13477**	**7575**	**5902**	**2623**	**8820**	**2034**
Yes	*32%*	*34.4%*	*28.6%*	*30.9%*	*31.1%*	*36.2%*
No	*68%*	*65.6%*	*71.4%*	*69.1%*	*68.9%*	*63.8%*

9.4.2 Reasons for willingness to buy meat less often

When asked why they would like to buy meat less often, the majority of consumers (54%) mention health reasons (Figure 64.)**. Another third (34%) say that meat is too expensive**. One in five (21%) is concerned about safety; environmental and ethical reasons come last, both with 16%.

Figure 64. Q10D. Reasons for willingness to buy meat less often

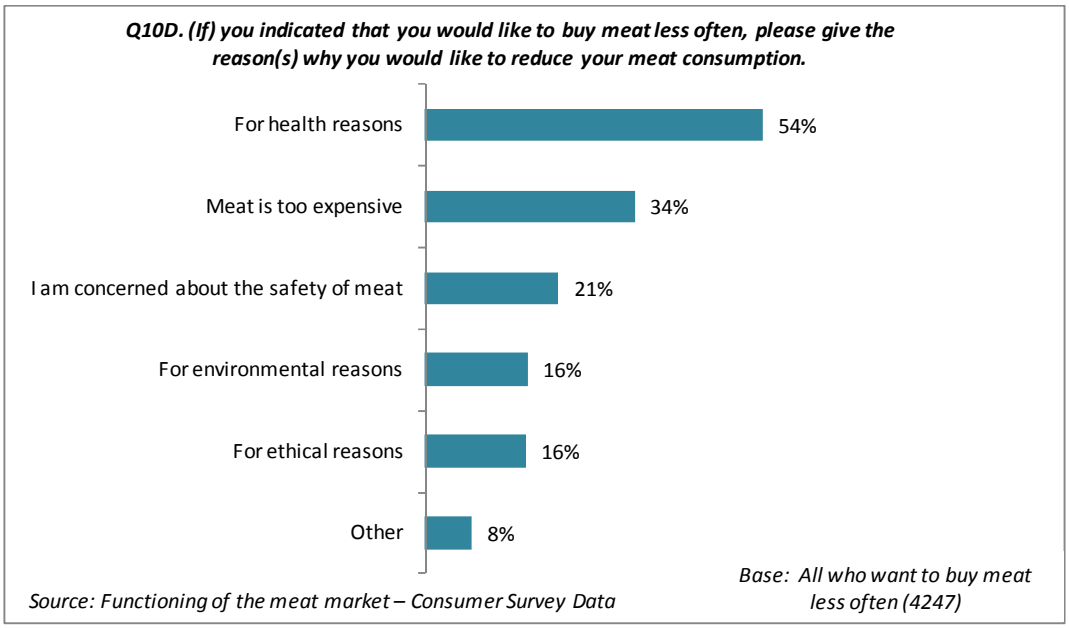


Figure 65. shows the results for '**for health reasons**' by country. **Consumers in the EU12 are more likely to cite health as the reason for being willing to purchase meat less often** than consumers in the EU15 (58% vs. 53%). Nearly all consumers in Greece (93%) and Cyprus (90%) who wish to cut down their meat consumption would do so for health reasons. Consumers in the Nordic countries are the least likely to name health as the reason for being willing to purchase meat less often (Sweden 35%, Finland 38%, Denmark (39%)

Consumers who say they would like to reduce their meat consumption for health reasons are more likely to be aware of meat with nutrition claims (40% of awareness compared with 34% for other consumers). **These consumers are also more likely to look for the following information items when purchasing meat: nutrition claims** (29% compared with 15% of other consumers), **nutritional values** (31% compared with 18%) **and ingredients** (41% compared with 29%).

Figure 65. Q10D. Reasons for willingness to buy meat less often – For health reasons

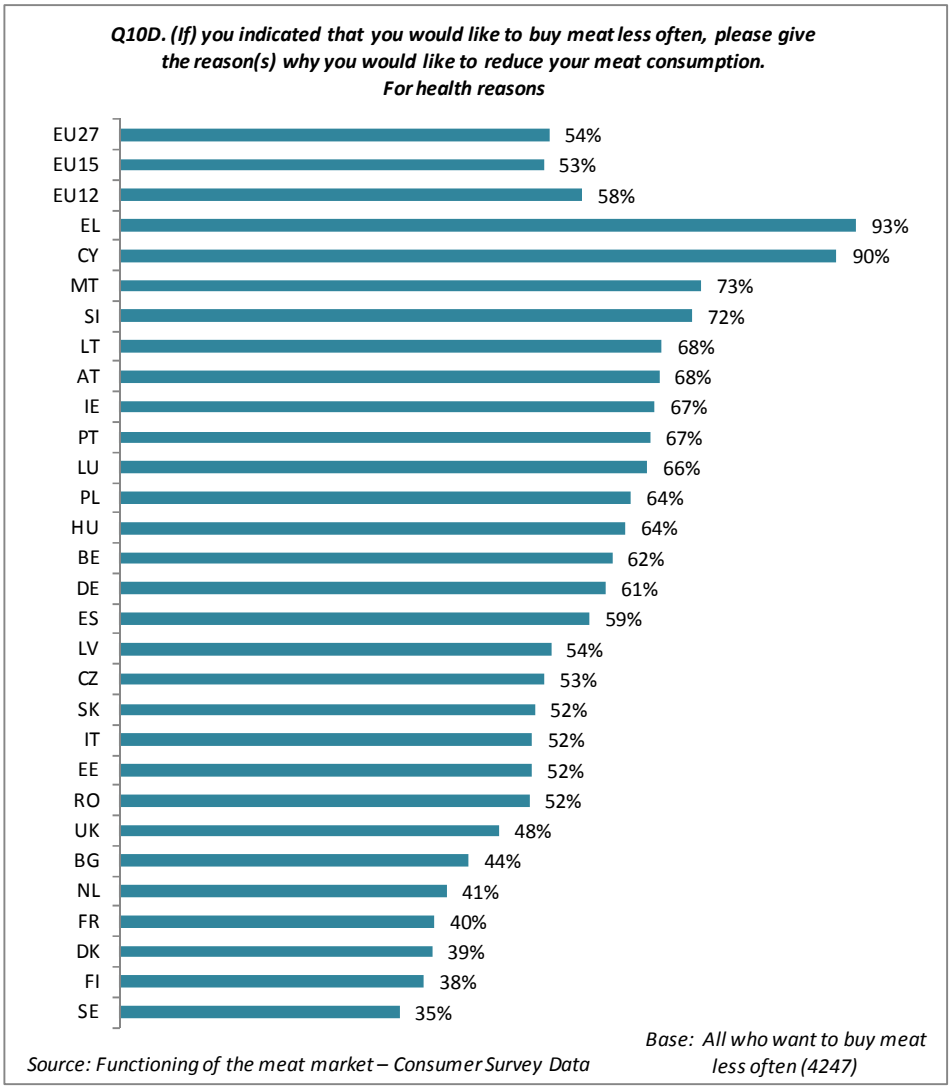


Figure 66. shows detailed results for '**Meat is too expensive**.' **Price seems to be more of an issue in the EU12 than in the EU15 countries** (39% vs. 33%). Particularly, Estonian (55%), British (51%) and French (51%) consumers would like to buy meat less often because it is too expensive. The respective price meat indexes from the 2011 price audit for these countries are 82, 98 and 128 (with the EU27 average equal to 100). This shows that consumer perceptions may not be fully aligned with actual price levels. **Consumers who had difficulties paying their bills in the past 12 months at least from time to time are more likely to say meat is too expensive,** with 43% doing so, compared with 26% of other consumers.

Figure 66. Q10D. Reasons for willingness to buy meat less often – Meat is too expensive

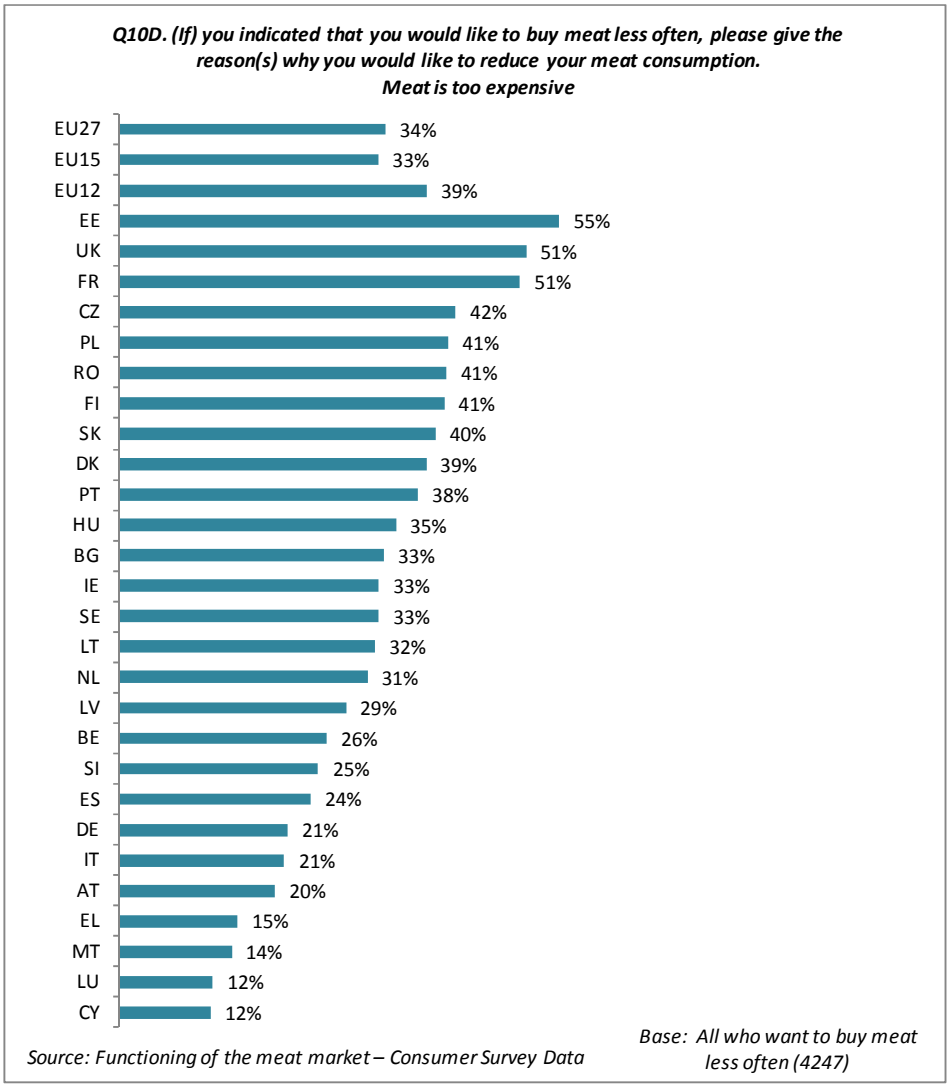


Figure 67. shows results by socio-demographic characteristics. **A higher proportion of consumers aged 55-75 (61.4%) who would like to buy meat or meat products less often indicated that it was for health reasons**, in comparison with consumers aged 18-34 (48.9%) and 35-54 (52.0%). **Urban consumers (56.9%) are also more likely than rural consumers (49.3%) to mention health reasons**.

Women (18.4%) are more likely to mention ethical reasons than men (13.7%). This is also the case for consumers aged 18-34 (22.5%) in comparison with age groups 35-54 (15.9%) and 55-75 (10.7%). Urban consumers (17.7%) also mention ethical reasons more often than rural consumers (13.6%).

Rural consumers (36.7%) are more likely than urban consumers (31.5%) to indicate they want to buy meat less often meat because it is **too expensive**. In contrast, urban consumers (18.1%) are more likely to mention **environment reasons** than rural consumers (13.7%).

Figure 67. Reasons for willingness to buy meat less often – by socio-demographic characteristics

Q10D. (If) you indicated that you would like to buy meat less often. please give the reason(s) why you would like to reduce your meat consumption. Reasons for buying meat less often		GENDER		AGE			AREA	
Base: Would like to buy meat less often	**EU27**	**Male**	**Female**	**18-34**	**35-54**	**55-75**	**URBAN**	**RURAL**
Basesize	**4247**	**1971**	**2276**	**1215**	**1761**	**1271**	**2486**	**1761**
For health reasons	*54%*	*54.9%*	*53.1%*	*48.9%*	*52%*	*61.4%*	*56.9%*	*49.3%*
For ethical reasons	*16.1%*	*13.7%*	*18.4%*	*22.5%*	*15.9%*	*10.7%*	*17.7%*	*13.6%*
I am concerned about the safety of meat	*21.4%*	*21.7%*	*21.1%*	*20.9%*	*21.5%*	*21.7%*	*21.8%*	*20.8%*
Meat is too expensive	*33.5%*	*34.7%*	*32.3%*	*35.9%*	*33%*	*31.9%*	*31.5%*	*36.7%*
For environmental reasons	*16.4%*	*14.7%*	*18.1%*	*19.1%*	*16.3%*	*14.1%*	*18.1%*	*13.7%*
Other	*7.5%*	*7.4%*	*7.6%*	*8.7%*	*7.4%*	*6.6%*	*7.9%*	*6.9%*

9.5 Structure of the meat market according to consumer purchasing behaviour

9.5.1 Overall results

Moving now from intention to actual behaviour, we first of all report the results of the question in which consumers surveyed in 2011 were asked for the types of meat they buy. We first compare purchases of pre-packaged and non-packaged meat, then purchases of fresh meat and meat products. Please note that all consumers who took part in the survey had bought meat or meat products in the month before the survey.

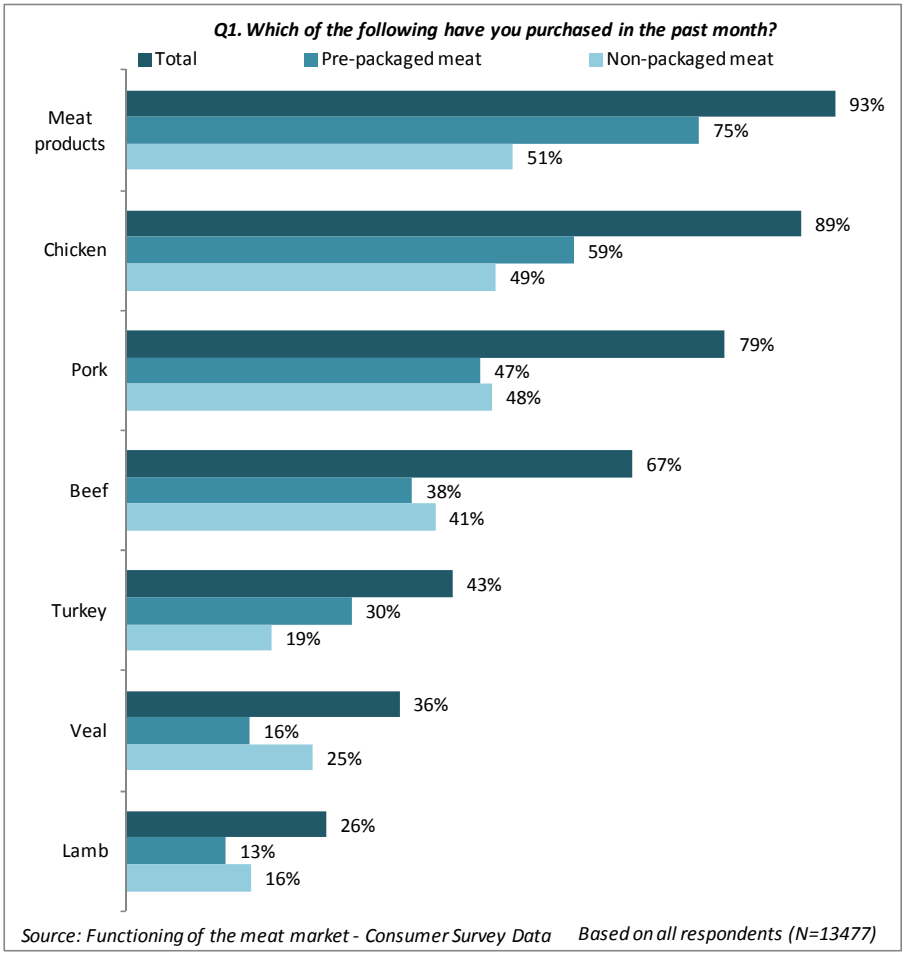
88% of EU27 consumers mention buying pre-packaged meat or meat products in the past month, while 75% mention buying non-packaged meat or meat products (Figure 68.). Meat products, chicken and turkey were more likely to be purchased pre-packaged, while veal was more often purchased non-packaged. Respondents from EU15 countries are more likely to have purchased pre-packaged meat (89% compared with 71% of non-packaged meat), while EU12 respondents are more likely to have purchased non-packaged meat (92% compared with 83% of pre-packaged meat).

Both pre-packaged and non-packaged meat was purchased in all countries, but consumers in some countries are more likely to have bought one type of meat. This is the case for Denmark, Sweden, Finland and the Netherlands where almost all consumers bought pre-packaged meat but less than half bought non-packaged meat in the past month. In contrast, almost all consumers in Greece and Portugal reported purchasing non-packaged meat in the past month, while less than 60% purchased pre-packaged meat over the same period.

These differences can be linked to some extent to retail channels consumers use. Consumers who use supermarkets or equivalent retailers as their main retailer are more likely to have bought pre-packaged meat in the past month. In contrast, consumers who use butchers, markets or farms as their main retailer are more

likely to have bought non-packaged meat in the past month. This seems confirmed by country level differences. Indeed, consumers in Denmark, Sweden, Finland and the Netherlands are more likely to use supermarkets or equivalent retailers as their main retailer, while Greek and Portuguese consumers are more likely to use butchers, markets or farms as their main retailers.

Figure 68. Q1. Pre-packaged and non-packaged meat purchased in the past month



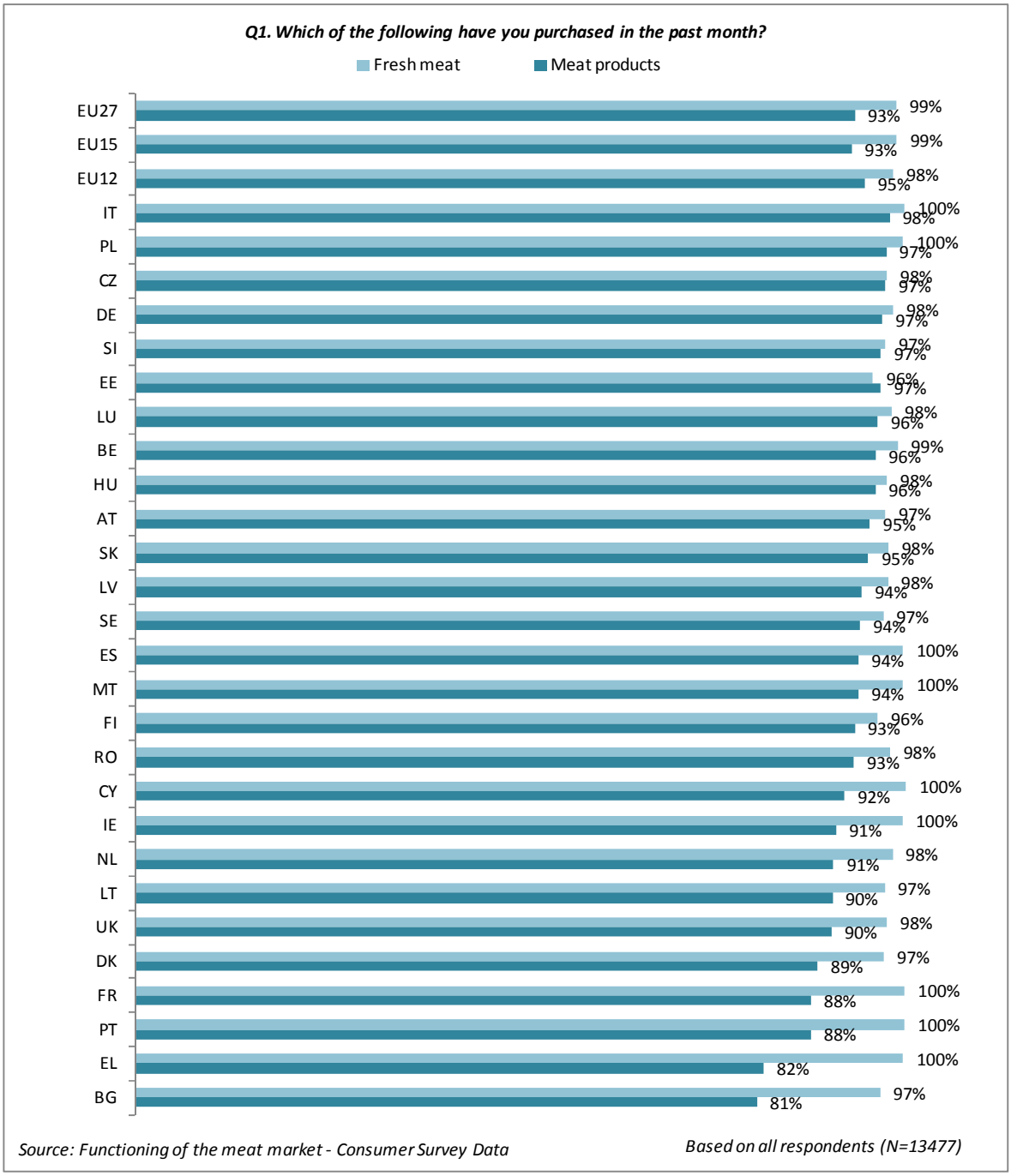
Almost all consumers (99%) purchased fresh meat in the past month, while 93% mention purchasing meat products (Figure 69.). Consumers purchased both types of meat in high proportions in all countries, although the proportion of meat products is slightly lower in two countries, Bulgaria (81%) and Greece (82%).

Chicken is the most commonly purchased fresh meat, with 89% of the sample mentioning a purchase in the past month. There are little differences between country groupings, but the picture is more contrasted at country level. Cyprus (97%), Ireland (96%) and Poland (96%) are the top three countries for chicken purchases, while Austria (75%), Sweden (76%) and Finland (77%) are the bottom three countries.

Pork is the second most commonly purchased fresh meat with 79% of consumers purchasing it in the past month. Similar proportions of consumers have bought pork among the country groupings. However, there are clear country differences in terms of proportion of consumers purchasing fresh pork in the past month. Cyprus is at the top of the ranking with 91%, while Slovenia is at the bottom with 64%.

67% of consumers purchased **beef** in the past month. There are very large differences between country groupings, driven by large country differences. 74% of EU15 consumers purchased beef in the past month, while only 37% of EU12 consumers did so. The split appears very clearly in the ranking, with the first half including all EU15 member states but Greece and the second half including all EU12 member states but Malta. French consumers were the most likely to have bought beef in the past month (94%), while Bulgarian (5%) and Greek (13%) consumers were the least likely to have done so.

Figure 69. Q1. Meat purchased in the past month



Less than half of consumers (43%) bought **turkey** meat in the past month. EU12 consumers were less likely to have bought turkey meat, with 29% doing so, compared with 47% among EU15 consumers. The top three countries in terms of turkey purchases in the past month are Austria (67%), Portugal and Germany (both 62%), while the bottom three are Latvia, Bulgaria (both 7%) and Malta (8%).

Just above a third of EU27 consumers (36%) purchased **veal** meat in the past month. There is a large difference between EU15 consumers, with 43% buying veal in the past month, and EU12 consumers, with 10% in this category. The split is less clear cut than for beef, but most EU15 countries are at the top of the ranking. Greek (84%) and Spanish (81%) consumers are the most likely to have purchased veal in the past month, while Hungarian (3%) and Irish (5%) consumers are the least likely to have done so.

Out of the kinds of meat mentioned in the survey, **lamb** had the lowest proportion of purchases in the past month, with 26%. While 32% of EU15 consumers bought lamb meat in the past month, only 5% of EU12 consumers did so. As for beef, all EU15 member states are in the first half of the ranking, apart from Finland. All EU12 member states but Cyprus are in the second half of the ranking. Cypriot consumers (56%) are the most likely to have bought lamb meat in the past month. Eastern European consumers are clearly less likely to have bought lamb in the past month, as all countries but Bulgaria are below the 10% threshold.

9.5.2 Results by socio-demographic category

We comment below on significant differences between the socio-demographic categories presented in Figure 70..

There is a difference between genders for **beef** purchases. Men (68.8%) are more likely to buy beef than women (64.5%). We can also see that urban consumers (68.1%) are more likely to have bought beef in the past month than rural consumers (64.6%).

As for **veal** buyers, men (37.9%) are more likely to buy veal than women (33.9%). In terms of age we also see a difference. The younger age group (18 to 34 - 39.0%) is more likely to buy veal, in contrast with the two older groups, 35 to 54 (34.6%) and 55 to 75 (34.6%).

Looking at **pork** buyers, we notice again that men (80.9%) are more likely to buy pork than women (76.8%). The two older age groups, 35-54 (80.8%) and 55-75 (79.8%) are more likely to buy pork than the younger group, 18-34 (74.8%). Besides, rural consumers (80.2%) are more likely to buy pork than urban consumers (77.8%).

Turning to **lamb**, men (28.3%) are more likely to buy this meat type than women (24.4%).

However, women (91.3%) are more likely to buy **chicken** than men (86.2%). This is also the case of the younger age group, 18-34 (91.1%), in comparison with consumers aged 35-54 (88.5%) and 55-75 (87.1%). Urban consumers (89.6%) are also more likely to buy chicken meat than rural consumers (87.8%).

We see the same gender trend for **turkey**: women (44.4%) are more likely to buy this meat type than men (41.4%). The two younger age groups, 18-34 year-olds (47.5%) and 35-54 year-olds (45.6%), are also more likely to buy turkey meat than the older age group, 55-75 year-olds (35.4%).

Figure 70. Meat purchased in the past month

Q1. Which of the following have you purchased in the past month?	GENDER			AGE			AREA	
	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL
Basesize	13477	6298	7179	3948	5518	4011	7575	5902
BEEF buyers	66.6%	68.8%	64.5%	67.5%	65.6%	67%	68.1%	64.6%
VEAL buyers	35.9%	37.9%	33.9%	39%	34.6%	34.6%	35.4%	36.5%
PORK buyers	78.8%	80.9%	76.8%	74.8%	80.8%	79.8%	77.8%	80.2%
LAMB buyers	26.3%	28.3%	24.4%	27.7%	24.7%	27.1%	27.1%	25.2%
CHICKEN buyers	88.8%	86.2%	91.3%	91.1%	88.5%	87.1%	89.6%	87.8%
TURKEY buyers	42.9%	41.4%	44.4%	47.5%	45.6%	35.4%	42.4%	43.6%

9.6 Purchases of specific meat types

9.6.1 Overall results

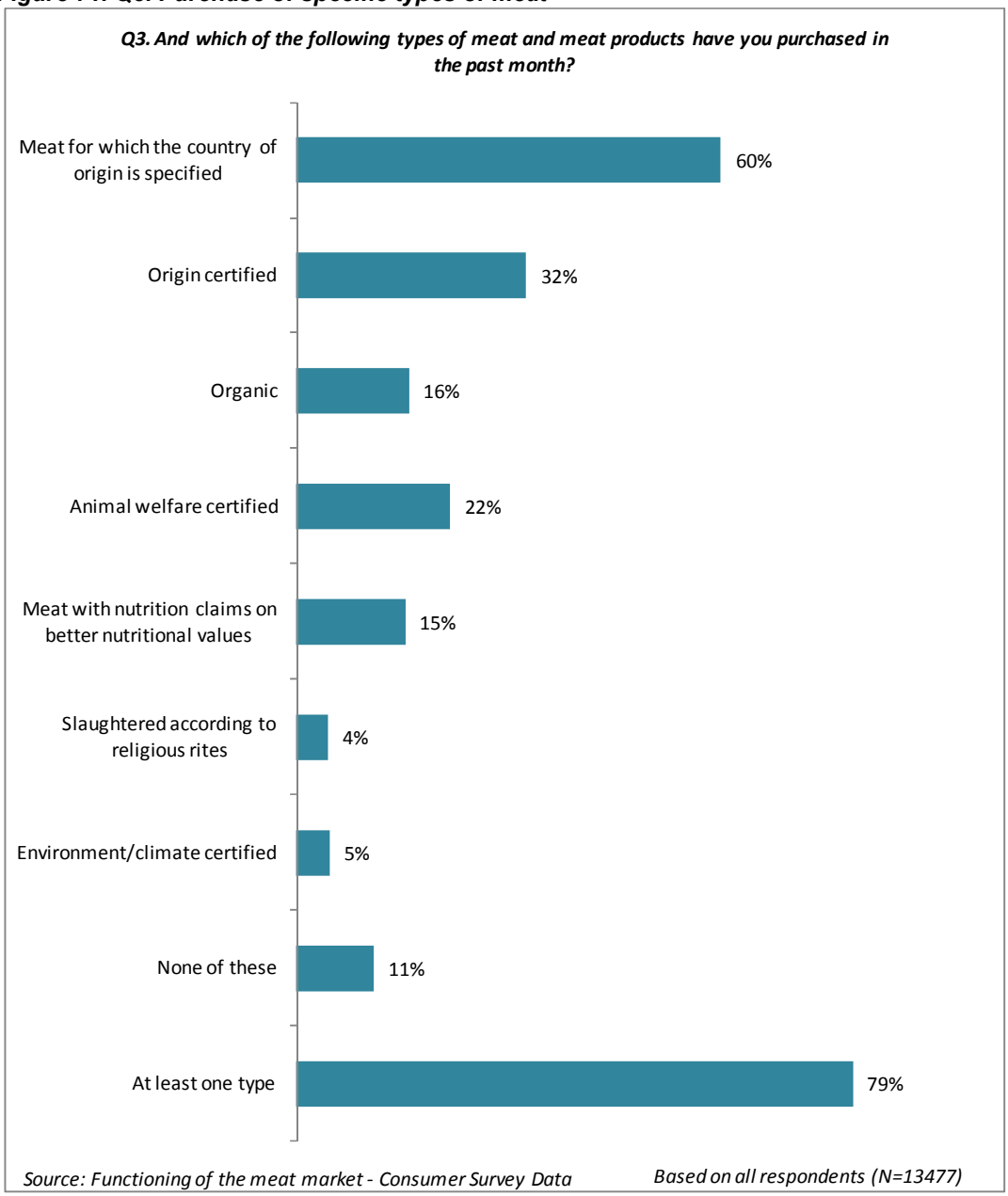
Concerning purchases of specific types of meat (Figure 71.), we can say that the proportions of consumers who have purchased specific product types in the past month are in line with awareness (discussed in the ability section), as the top mentions are meat for which the country of **origin is specified (60%)** and **origin certified meat (32%)**. The least purchased meat types are religiously slaughtered meat (4%) and environment or climate certified meat (5%). 90% of consumers are aware of at least one of the types of meat listed below, while 79% have purchased at least one of these products in the past month.

Consumers who have purchased religious slaughter meat in the past month are more likely than others to have purchased veal (57% compared with 32% for other consumers), lamb (64% compared with 31%) or turkey (64% compared with 41%) in the past month. Consumers who have purchased environment or climate certified meat in the past month are more likely to have purchased veal (58% compared with 39%) or turkey (66% compared with 49%) in the past month. Consumers who have bought meat with nutrition claims in the past month are more likely to have purchased turkey (55% compared with 40% for other consumers) in the past month.

Turning to the **proportion of consumers buying a specific type of meat when they are aware of it**, there are large differences between types. Most **consumers (79%) who are aware of meat for which the country of origin is specified** have bought this product in the past month. This proportion is 59% for origin certified meat, 49% for animal welfare certified meat and 44% for meat with nutrition claims on better nutrition values. Around one third of consumers aware of environment or **climate-certified (31%) meat** have purchased this type of meat in the past month. The situation is similar for **organic meat with 33%** of consumers who are aware of this type buying it in the past month. Religious slaughtered meat has the lowest proportion, 18%.

This highlights the fact that increasing awareness of a meat type may not necessarily result in higher purchases. This seems to be particularly true for meat types that only appeal to a limited proportion of consumers, i.e. represent a 'niche' market at this point in time, such as religious slaughter or environment/climate certified meat.

Figure 71. Q3. Purchase of specific types of meat



Detailed country results for particular types of meat are included in the technical report from the consumer opinion survey. The sections below describe the main cross-country differences.

9.6.2 Meat for which the country of origin is specified

We will now look in more detail at consumers' purchase patterns. **60% have purchased meat for which the country of origin is specified in the past month**. Purchase figures for meat for which the country of origin is specified are higher for EU15 member states (63%) than for EU12 member states (50%).[75]

[75] Please see details in the consumer survey's technical report.

43% of consumers who have purchase this type of meat say they would like to buy it more often. This compares with 37% among consumers who have not bought this type of meat in the past month.

Consumers who have purchased meat for which the country of origin is specified in the past month are more likely to look for the country of origin when purchasing meat (59% compared with 39% for other consumers). Consumers who would like to purchase meat for which the country of origin is specific more often are more likely to look for a range of information items, including the country of origin (55% compared with 42%) and origin certifications (37% compared with 19%).

Swedish (84%) and Irish (78%) consumers are the most likely to have purchased this product in the past month. In contrast, Estonian (21%), Portuguese (37%) and Dutch (37%) consumers are the least likely to say they purchase meat for which the country of origin is specified in the past month.

These results match to some extent the availability of country of origin labelling as measured in the 2011 mystery shopping exercise. Indeed, Sweden and Ireland have above average availability (respectively 98% and 92% of assessed products), while Portugal and the Netherlands have below average availability (respectively 73% and 47%). The proportion for Estonia, however, is 84%, which is close to the EU average (86%).

9.6.3 Origin certified meat

Around a third of consumers (32%) have purchased origin certified meat in the past month.[76] EU12 consumers (46%) are slightly less likely than EU15 consumers (57%) to be aware of origin certified products. However, purchase figures are similar with 33% in the EU15 group and 29% in the EU12 group. [77]

53% of consumers who have bought origin certified meat in the past month say they would like to buy this meat type more often. This compares with 40% among other consumers.

Consumers who have purchased origin certified meat in the past month are more likely to look for origin certifications when purchasing meat (48% compared with 22% for other consumers).

Consumers who would like to buy origin certified meat more often are more likely to look for a range of information items including origin certifications (42% compared with 16% among other consumers), nutrition claims (45% compared with 26% among other consumers) and ingredients (43% compared with 24% among other consumers).

There are large differences across countries. Hungary and Luxembourg are the top two countries in the ranking for past month purchase (68% and 55%). Cyprus ranks last with just 2% of consumers saying they bought an origin certified product in the past month.

The availability of origin certifications as measured in the mystery shopping audit does not match the results of the top two countries: origin certifications were found on 38% of the products assessed in Hungary, and 36% of products in Luxembourg. This is just below the EU average, 40%. However, the results for Cyprus match the consumer survey data: none of the products assessed in Cyprus displayed an origin certification.

76 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.

77 Please see details in the consumer survey's technical report.

There does not seem to be a clear overall link between the consumer reported purchasing behaviour and the availability of origin certificates in the EU.

9.6.4 Organic meat

16% of consumers say they have bought organic meat in the past month. There is a large difference between EU15 countries (18%) and EU12 countries (8%).[78]

66% of consumers who have bought organic meat in the past month would like to buy this meat type more often. This compares with 47% among consumers who have not purchased organic meat in the past month.

Consumers who have purchased organic meat in the past month are more likely to look for organic certifications (52% compared with 16% for other consumers) and animal welfare labelling (39% compared with 22% for other consumers).

Consumers who would like to buy organic meat more often are more likely than others to look for a range of information items, including organic labelling (32% compared with 8% among other consumers) and nutrition claims (45% compared with 25%).

The top three countries in terms of purchase are Denmark (39%), Austria and Luxembourg (both 30%). Bulgaria, Portugal and Hungary have the lowest proportion of consumers saying they purchased organic meat in the past month with 5%.

These results are consistent with the availability of organic labelling in the mystery shopping audit. Denmark (24%), Austria (22%) and Luxembourg (20%) had an above average proportion of products with this type of labelling. Bulgaria (1%) and Hungary (5%) had below average organic labelling availability. However, Portugal, with 14%, is close to the EU average (15%). Thus there seems to be a link between the consumer reported purchasing behaviour and the availability of organic labels on meat across the EU.

9.6.5 Animal welfare certified meat

A fifth of consumers (22%) say they have purchased animal welfare certified meat in the past month. Purchase figures are lower for EU12 countries than for EU15, with respectively 13% and 24%.[79]

54% of consumers who have purchased animal welfare certified meat in the past month would like to buy this meat type more often. This compares with 47% among other consumers.

Consumers who have purchased animal welfare certified meat in the past month are more likely to look for animal welfare certifications when purchasing meat (45% compared with 23% for other consumers).

Consumers who say they would like to buy animal welfare certified meat more often are more likely than others to look for a range of information items, including animal welfare certifications (34% compared with

[78] Please see details in the consumer survey's technical report.
[79] Please see details in the consumer survey's technical report.

13% of other consumers), nutrition claims (45% compared with 25%), and ingredients (43% compared with 23%).

Austria and the UK come first for purchases with 30%, while Latvia (4%), Estonia (5%) and Bulgaria (6%) come last.

On average, 20% of the products assessed by mystery shoppers in the EU displayed an animal welfare label. Estonia (4%), Latvia and Bulgaria (both 1%) have below average proportions of this type of labelling, while the UK proportion is above average (39%). 19% of the products assessed in Austria displayed an animal welfare certification, which is quite close to the EU average.

9.6.6 Meat with nutrition claims on better nutritional values

15% of consumers have purchased meat with nutrition claims on better nutritional values in the past month.

51% of consumers who have purchased meat with nutrition claims on better nutritional values in the past month would like to buy this meat type more often. This compares with 32% of other consumers.

Consumers who have purchased meat with nutrition claims on better nutritional values in the past month are more likely to look for nutrition claims when purchasing meat (57% compared with 38% for other consumers).

Consumers who say they would like to buy this meat type more often are more likely to look for a range of information items, including nutrition claims (49% compared with 26% among other consumers) and nutritional values (36% compared with 13%).

These proportions are stable across country groupings. Finland (36%) and Slovenia (28%) are at the top of the ranking for purchases, while Latvia (5%) and Slovakia (7%) are at the bottom. [80]

These results do not match the availability of nutrition claims labelling as measure in the mystery shopping exercise. The proportion of assessed products that displayed such labelling is close to the EU average (17%) in all four countries, with 19% in Finland, 14% in Slovenia, 17% in Latvia and 15% in Slovakia.

9.6.7 Meat slaughtered according to religious rites

4% of consumers say they have purchased meat slaughtered according to religious rites in the past month, with 5% in EU15 countries and 1% in EU12 countries. [81]

50% of consumers who have bought meat slaughtered according to religious rites in the past month say they would like to buy this meat type more often. This compares with 16% among other consumers.

[80] Please see details in the consumer survey's technical report.
[81] Please see details in the consumer survey's technical report.

Consumers who have purchased religious slaughter certified meat in the past month are more likely to look for religious slaughter certifications (42% compared with 8% for other consumers) **and animal welfare certifications** (42% compared with 25% for other consumers).

Consumers who say they would like to buy this meat type more often are more likely to look for a range of information items, including religious slaughter labelling (29% compared with 4% among other consumers), organic labelling (36% compared with 14%), environment/climate certifications (32% compared with 7%), animal welfare certifications (39% compared with 18%) and origin certifications (44% compared with 22%).

France (11%) and the UK (10%) come first for purchases. In seven countries, fewer than four respondents mentioned buying religiously slaughtered meat in the past month: Cyprus, Estonia, Greece, Hungary, Portugal, Slovakia and Lithuania.

These results match to some extent the availability of religious slaughter meat in the mystery shopping audit. 17 such products were audited in France and 7 in the UK, while no religious slaughter products were assessed in Cyprus, Estonia, Greece, Hungary, Slovakia and Lithuania. The exception is Portugal, where 5 religious slaughter products were assessed.

9.6.8 Environment or climate certified meat

Purchase figures for environment or climate certified meat are comparable to religiously slaughtered meat, with 4%. 5% of EU15 consumers say they have bought this product, compared with 1% of EU12 consumers. [82]

58% of consumers who have bought environment/climate certified meat in the past month say they would like to buy this meat type more often. This compares with 44% among other consumers.

Consumers who say they would like to buy this meat type more often are more likely to look for a range of information items, including environment/climate certifications (26% compared with 5% among other consumers), animal welfare certifications (36% compared with 15%), organic certifications (33% compared with 12%), origin certifications (43% compared with 19%), nutrition claims (48% compared with 27%) and ingredients (46% compared with 25%).

Consumers who have purchased environment/climate certified meat in the past month are slightly more likely to look for environment/climate certifications when purchasing meat (37% compared with 22% for other consumers).

In four countries, 7% of consumers say they have purchased environment or climate certified products in the past month: Austria, Sweden, the UK and Spain. In six countries, fewer than four respondents mentioned buying this product in the past month: Cyprus, Latvia, Bulgaria, Greece, Lithuania, and Hungary.

These results are only partially consistent with the results of the mystery shopping assessments: no environment/climate certified products were assessed in Austria, Cyprus, Latvia, Bulgaria and Lithuania. A handful of these products were assessed in Greece (1), Spain (2), the UK (6) and Hungary (7). However, 11% of products assessed in Sweden (49 products) were environment or climate certified.

[82] Please see details in the consumer survey's technical report.

Consumers' behaviour is therefore consistent: consumers who have purchased a specific meat type are more likely to say they would like to buy this type more often. However, the proportion of purchases is not always aligned with the availability of labelling information at country level.

9.6.9 Results by socio-demographic category

We comment below on significant differences between socio-demographic categories (Figures 72. and 73.).

Younger consumers (18-34 - 74.1%) **are less likely to be aware of meat for which the country of origin is specified** than older age groups (76.9% among 35-54 year-olds and 77.5% among 55-75 year-olds). Men (81.1%) are more likely to purchase this meat type than women (76.5%).

Women (46.8%) **are more likely to be aware of animal welfare certified meat** than men (41.6%). Urban consumers (45.4%) are more likely to know this type of meat than rural consumers (42.7%).

Awareness of meat slaughtered according to religious rites is higher among 18-34 year-olds (28.3%) than 35-54 year-olds (25.0%) and 55-75 year-olds (21.8%). This is consistent with purchase figures, as respondents aged 18 to 34 (26.1%) are more likely to have bought religious slaughter meat in the past month than respondents aged 35-54 (16.0%) or 55-75 (10.2%). Similarly, awareness and purchase figures are **higher among urban consumers** (27.7% awareness and 20.6% purchases) than among rural consumers (21.3% awareness and 12.5% purchases).

There are differences in each category for **organic meat**. **Women** (51.2%) **are more likely to know this type of meat than men** (46.2%). In terms of age, the **older group** (55-75 with 45.4%) **is less aware of organic meat t**han the two younger groups (18-34 with 50.0% and 35-54 with 50.4%). **18-34 year-olds** (37.8%) **are also more likely than other age groups to have purchased organic meat** in the past month, compared with 32.2% among 35-54 year-olds and 27.7% among 55-75 year-olds. Urban consumers (52.3%) stand out as they are more aware of organic meat than rural consumers (44.0%). They also more likely have bought this meat type than rural consumers (34.5% compared with 29.2%).

Turning to **environment/climate certified meat**, men (16.0%) are more likely to know this meat type than women (13.5%). 18-34 year-olds (18.1%) are more aware of this meat type than the other two age groups (35-54 year-olds with 13.8% and 55-75 year-olds with 12.7%). Again, urban consumers (15.7%) are more aware than rural consumers (13.4%).

Concerning **origin certified meat**,**we can see that younger consumers** (51.5%) **are less aware of this type of meat** than the other two age groups (with respectively 55.3% for 35-54 year-olds and 57.2% for 55-75 year-olds). **Urban consumers** (57.0%) **are more aware of origin certified meat** than rural consumers (51.9%). In terms of purchases, **men** (61.6%) **are more likely to buy this type of meat than women** (57.0%).

Women (36.7%) **are more likely to be aware of meat with nutrition claims on better nutritional values** than men (32.6%). Also, the **younger age group** (18-34 with 38.3%) **is more aware of this type of meat** than the other age groups (35-54 with 35.2% and 55-75 with 30.6%). **Urban consumers** (46.3%) **are more likely than rural consumers** (40.9%) **to have purchased** meat with nutrition claims on better nutritional values in the past month.

Rural consumers (11.9%) are more likely than urban consumers (9.5%) to say they are **not aware of any meat type**. They are also more likely than urban consumers to say they have not purchased any of these meat types in the past month (34.1% compared with 29.5%).

Figure 72. Q2. Awareness of meat types by socio-demographic category

Q2. Which of the following types of meat and meat products do you know?		GENDER		AGE			AREA	
	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL
Basesize	**13477**	**6298**	**7179**	**3948**	**5518**	**4011**	**7575**	**5902**
Meat for which the country of origin is specified	*76.3%*	*77.1%*	*75.4%*	*74.1%*	*76.9%*	*77.5%*	*76.9%*	*75.4%*
Animal welfare certified	*44.3%*	*41.6%*	*46.8%*	*43.2%*	*44.9%*	*44.5%*	*45.4%*	*42.7%*
Slaughtered according to religious rites	*24.9%*	*25.6%*	*24.3%*	*28.3%*	*25%*	*21.8%*	*27.7%*	*21.3%*
Organic	*48.7%*	*46.2%*	*51.2%*	*50%*	*50.4%*	*45.4%*	*52.3%*	*44%*
Environment/climate certified	*14.7%*	*16%*	*13.5%*	*18.1%*	*13.8%*	*12.7%*	*15.7%*	*13.4%*
Origin certified	*54.8%*	*54.4%*	*55.2%*	*51.5%*	*55.3%*	*57.2%*	*57%*	*51.9%*
Meat with nutrition claims on better nutritional values	*34.7%*	*32.6%*	*36.7%*	*38.3%*	*35.2%*	*30.6%*	*35.6%*	*33.3%*
None of these	*10.5%*	*10.5%*	*10.6%*	*9.8%*	*10.1%*	*11.7%*	*9.5%*	*11.9%*
All who know at least one type	***89.5%***	***89.5%***	***89.4%***	***90.2%***	***89.9%***	***88.3%***	***90.5%***	***88.1%***

Figure 73. Q3. Purchase of meat types by socio-demographic category

Q3. And which of the following types of meat and meat products have you purchased in the past month?		GENDER		AGE			AREA	
Note: The base of each row is those respondents who say they know the type in Q2.	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL
Basesize	**13477**	**6298**	**7179**	**3948**	**5518**	**4011**	**7575**	**5902**
Meat for which the country of origin is specified	*78.7%*	*81.1%*	*76.5%*	*79.1%*	*78.1%*	*79.2%*	*78.3%*	*79.3%*
Animal welfare certified	*49%*	*48%*	*49.9%*	*47.5%*	*49%*	*50.4%*	*48.9%*	*49.2%*
Slaughtered according to religious rites	*17.6%*	*19.4%*	*15.9%*	*26.1%*	*16%*	*10.2%*	*20.6%*	*12.5%*
Organic	*32.5%*	*33%*	*32%*	*37.8%*	*32.2%*	*27.7%*	*34.5%*	*29.2%*
Environment/climate certified	*31.4%*	*33.2%*	*29.4%*	*34.4%*	*29.4%*	*30.2%*	*33.8%*	*27.7%*
Origin certified	*59.3%*	*61.6%*	*57%*	*58.2%*	*58.7%*	*60.8%*	*59.2%*	*59.3%*
Meat with nutrition claims on better nutritional values	*44.1%*	*44.7%*	*43.6%*	*44.5%*	*44.4%*	*43.2%*	*46.3%*	*40.9%*
I am not aware of having bought one of these	*31.4%*	*29.7%*	*32.8%*	*28.2%*	*30.8%*	*35.8%*	*29.5%*	*34.1%*

9.7 Reported frequency of meat consumption

9.7.1 Overall results

After looking into the purchase behaviour we describe the EU consumers' meat consumption. **On average, respondents eat meat and meat products 190 days per year, or around every second day** (Figure 74.). **Consumers in EU12 countries eat meat more frequently than EU15 consumers** with an average of 217 days per year, compared with 183 days. The high frequency of meat consumption in EU12 is driven by higher than average frequencies for meat products (188 days per year), chicken (118 days) and pork (97 days). The frequency of beef, turkey, veal and lamb consumption is slightly higher among EU15 consumers than in EU12 countries.

Low frequency consumers (less often than once a week) **are less likely than other consumers to look for the price per kilogram** (60% compared with 68% and 70% for the medium and high frequency categories).

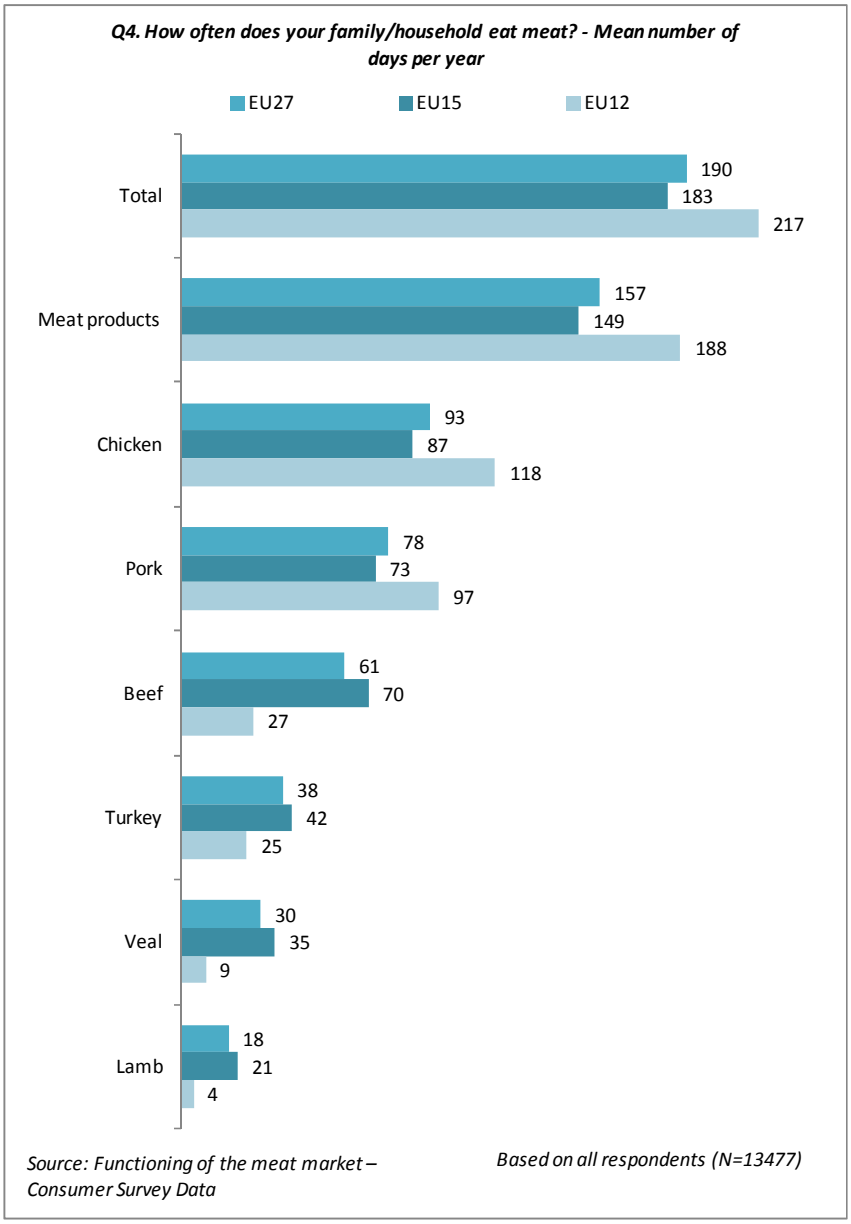
High frequency consumers are more likely than other groups to look for the use by date, with 72% doing so, compared with 68% of medium frequency consumers and 62% of low frequency consumers. They

are also more likely to look for **nutrition claims** (22% compared with 17% and 16%), **nutrition values** (24% compared with 20% and 19%), **GM-free feed** (20% compared with 17% and 15%) and **made from combined meat pieces** (16% compared with 12% and 7%).

Consumers eat meat products more frequently than fresh meat in all but five countries: Spain, Romania, Portugal, France and Greece. Estonian and Hungarian consumers consume meat products most frequently with averages of 228 and 226 days per year respectively. Greece is at the bottom of the ranking with 76 days per year. For fresh meat, Lithuania (175 days) and Romania (168 days) rank the highest. Greece is also the country with the lowest frequency of fresh meat consumption, on 93 days per year.[83]

[83] Please see details in the consumer survey's technical report.

Figure 74. Q4. How often does your family/household eat meat? – Mean number of days per year



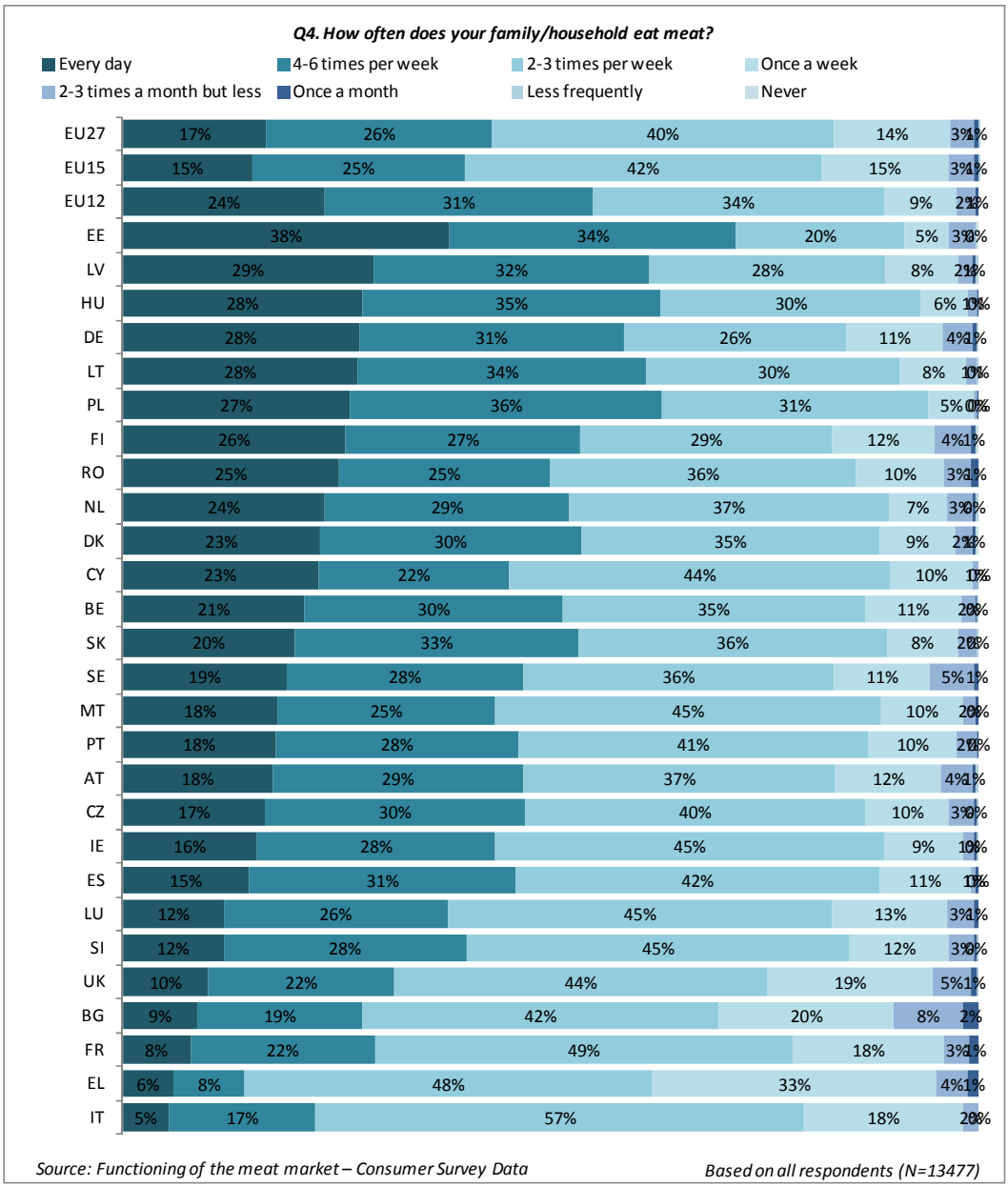
Looking at the meat consumption frequencies in more detail, **17% of respondents eat meat every day and a quarter (26%) 4-6 times a week** (Figure 75.). Only 3% of respondents eat meat less than once a week. However, please note that only respondents who bought meat in the past month took part in the survey. The proportion of consumers in the first two categories is higher for EU12 countries, with a quarter of consumers (24%) eating meat every day and around a third (31%) eating meat 4-6 times per week.

Consumers in the low frequency category (who eat meat less than once a week) are more likely than others to say they would like to buy meat less often, 36% saying so, compared with 31% of consumers who eat meat more often.

At country level, Estonia comes first with 38% of consumers eating meat every day and a further 34% eating meat 4-6 times per week. Italy and Greece are at the bottom of the ranking with respectively 5% and 6% of consumers eating meat every day.

In spite of these differences in consumption frequencies, similar proportions of consumers in Estonia (22%), Italy (21%) and Greece (24%) say they would like to buy meat less often. This is below the EU average, 32%.

Figure 75. Q4. How often does your family/household eat meat?



Source: Functioning of the meat market – Consumer Survey Data

Based on all respondents (N=13477)

9.7.2 Results by country

We will now look at consumption frequencies in more detail. They are overall consistent with the data collected on purchases.

Chicken is the most frequently consumed fresh meat, on 93 days per year on average. **EU12 consumers eat chicken much more frequently**, on 118 days per year, compared with 87 days for EU15 consumers. Romania is the top country in terms of chicken consumption frequency with 151 days per year. Austria (65 days), Sweden (67 days) and Luxembourg (68 days) come last. [84]

These results match the proportion of consumers who say they have purchased chicken in the past month in each country. 91% of Romanian consumers purchased chicken in the past month, compared with 75% in Austria, 76% in Sweden and 79% in Luxembourg.

Pork is the second most frequently consumed fresh meat with an average of 78 days. EU12 consumers consume pork more frequently, on 97 days per year on average, compared with 73 days for EU15 consumers. Baltic countries are at the top of the ranking, with averages of 141 days for Lithuania, 138 days for Latvia and 136 days for Estonia. Italy and Greece are at the other end of the spectrum, with consumers eating pork on respectively 45 and 50 days per year. [85]

In spite of these wide variations in consumption across countries, there are only limited differences in the proportions of consumers who say they have bought pork in the past month: 82% in Latvia, 81% in Estonia, 79% in Lithuania, 78% in Greece and 73% in Italy. This may be evidence that pork is a usual product, even in countries where the consumption frequency is low.

Beef is consumed on 61 days per year on average. **EU15 consumers eat beef more frequently**, on 70 days per year on average, compared with 27 days per year in EU12 countries. French consumers eat beef most frequently, on 101 days per year on average, while Bulgarian consumers eat it least frequently, with 6 days per year. These country results match the proportion of consumers who say they have bought beef in the past month, with 94% in France and 5% in Bulgaria. [86]

Consumers eat turkey on 38 days per year on average. The average for EU15 countries is 42 days, while it is 25 days for EU12 countries. Portugal (60 days), Germany (59 days) and Austria (57 days) eat turkey most frequently. In contrast, Malta (5 days), Latvia (6 days) and Bulgaria (8 days) eat turkey least frequently. These results are consistent with the proportion of consumers who say they have purchased turkey meat in the past month in each country. This proportion is above average in Austria (67%), Portugal and Germany (both 62%), but below average in Malta (8%), Latvia and Bulgaria (both 7%).[87]

The average frequency of veal consumption is 30 days per year. **EU15 consumers eat veal more frequently**, on 35 days per year on average, while this figure is of 9 days for EU12 countries. Spain is the country with the highest average, 78 days. Consumers in seven countries eat veal on fewer than 10 days per year on average: Hungary, Cyprus, Czech Republic, Slovakia, Ireland, Poland and Romania. Spain also has one of the highest proportions of consumers who say they have bought veal meat in the past month (81%). In contrast, the seven other countries have below average scores on this question: 18% of Cypriot consumers

[84] Please see details in the consumer survey's technical report.
[85] Please see details in the consumer survey's technical report.
[86] Please see details in the consumer survey's technical report.
[87] Please see details in the consumer survey's technical report.

say they have bought veal in the past month, as well as 13% in Poland, 6% in Czech Republic, Romania and Slovakia, 5% in Ireland and 3% in Hungary. [88]

Lamb is the least frequently consumed fresh meat, on 18 days per year on average. EU15 consumers eat lamb more frequently, on 21 days per year, compared with 4 days for EU12 consumers. All EU12 countries but Cyprus are in the second half of the ranking. UK (34 days) and Spanish (32 days) consumers eat lamb most frequently. Polish consumers eat lamb least frequently, on 2 days per year on average. These results are consistent with the proportion of consumers in each country who say they have purchased lamb in the past month: it is above average for the UK (50%) and Spain (46%), but below average for Poland (3%).[89]

9.7.3 Results by socio-demographic category

We comment below on significant differences between socio-demographic categories (Figure 76.).

In terms of eating frequency, respondents aged 55-75 are more likely to be in the medium frequency group (61.4%), compared with 46.5% for people aged 18-34 and 52.4% for people aged 35-54. In contrast, **respondents aged 18-34 are more likely to be in the high frequency group**, with 50.6% in this group, compared with 44.2% for 35-54 year-olds and 34.9% for 55-75 year-olds. **Urban meat consumers are also more likely to be in the high frequency group** (44.8% compared with 40.8% for rural meat consumers), while rural meat eaters are more likely to be in the medium frequency group (56.0% compared with 51.7% for urban meat eaters).

Figure 76. Q4. Consumption frequency by socio-demographic category

Q4. How often does your family/household eat meat?		AGE			AREA	
Total meat	EU27	18-34	35-54	55-75	URBAN	RURAL
Basesize	13477	3948	5518	4011	7575	5902
(5-7) Low	3.3%	2.9%	3.4%	3.7%	3.5%	3.1%
(3-4) Medium	53.5%	46.5%	52.4%	61.4%	51.7%	56%
(1-2) High	43.1%	50.6%	44.2%	34.9%	44.8%	40.8%

9.8 Reported waste of meat and meat products

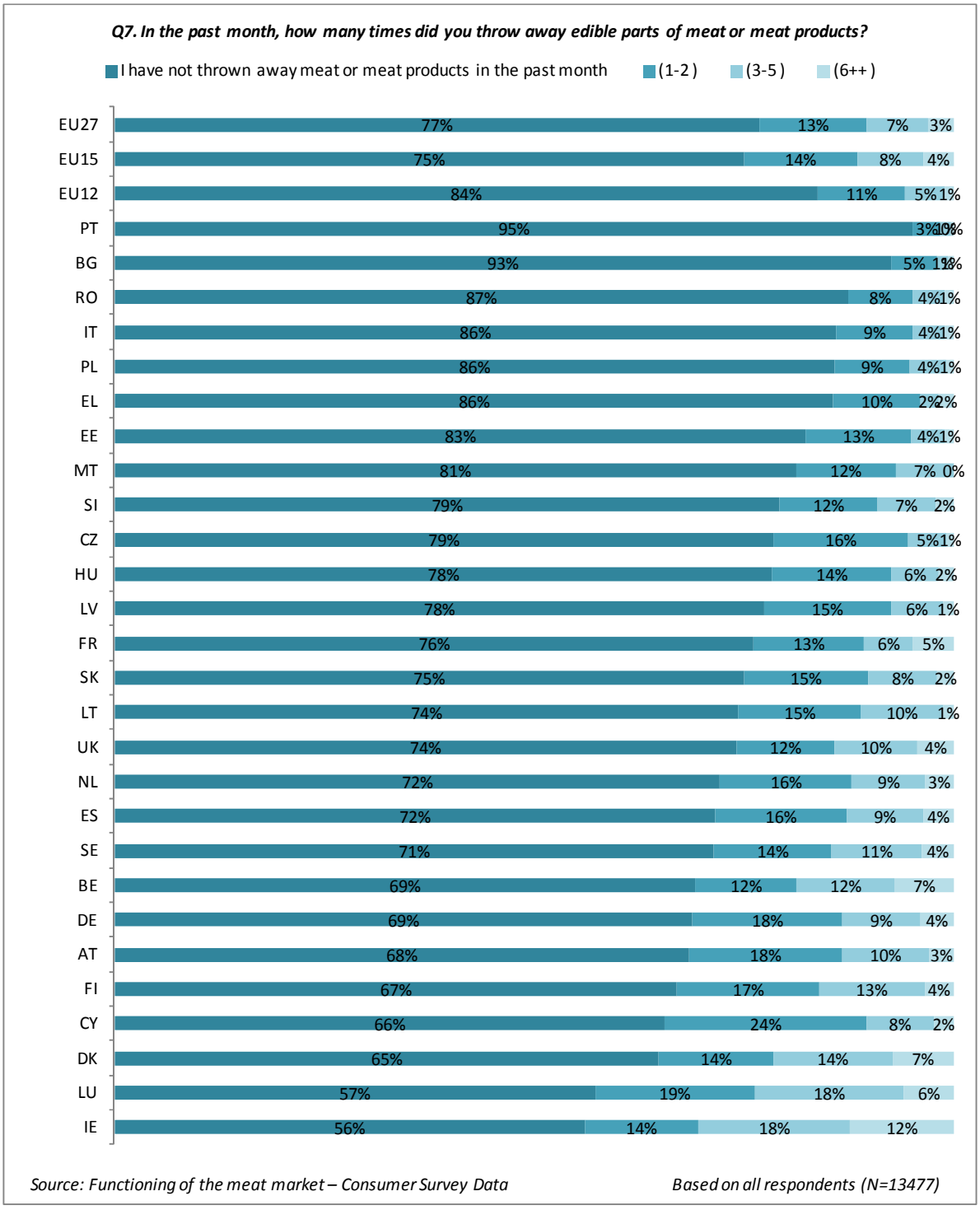
As part of their behaviour, consumers were also asked if they threw away edible parts of meat or meat products in the month before the survey (Figure 77.). **Around a quarter (23%) had done so. EU15 consumers were more likely to have thrown meat away with 25% compared with 16% for EU12 consumers**. Consumers in Ireland (44%) and Luxembourg (43%) are the most likely to have thrown meat away in the past month. Portuguese (5%) and Bulgarian (7%) consumers are the least likely to have done so.

[88] Please see details in the consumer survey's technical report.
[89] Please see details in the consumer survey's technical report.

Consumers who have thrown meat away in the past month were asked how many times this happened. **On average, consumers say they threw meat away 3.5 times in the past month. This frequency is higher for EU15 consumers (3.7) than for EU12 consumers (2.6).** Ireland has the highest average with 5.7 times in the past month, compared with 2.1 and 2.2 for Czech Republic and Malta, who have the two lowest averages.

Consumers who say that their main reason for throwing away meat is 'I did not prepare the meat properly' have thrown meat away more often than average, around 5 times in the past month. **This is also the case for consumers who answered 'The taste was not what I expected'** with 4.8 times. In contrast, consumers who say that they did not store the meat properly only threw meat away 2.2 times on average.

Figure 77. Q7. Share of consumers who threw meat or meat products away in the past month



Source: Functioning of the meat market – Consumer Survey Data *Based on all respondents (N=13477)*

We comment below on significant differences between socio-demographic categories (Figure 78.).

Respondents **aged 18-34 are more likely to have thrown meat away** in the past month than other age groups, with 32.3% reporting waste, compared with 23.1% among 35-54 year-olds and 15.2% among 55-75 year-olds.

High frequency (28.8%) and medium (23.5%) frequency consumers are also more likely to say they have thrown meat away in the past month than the low frequency group (16.5%).

Figure 78. Q7. In the past month, how many times did you throw away edible parts of meat or meat products?

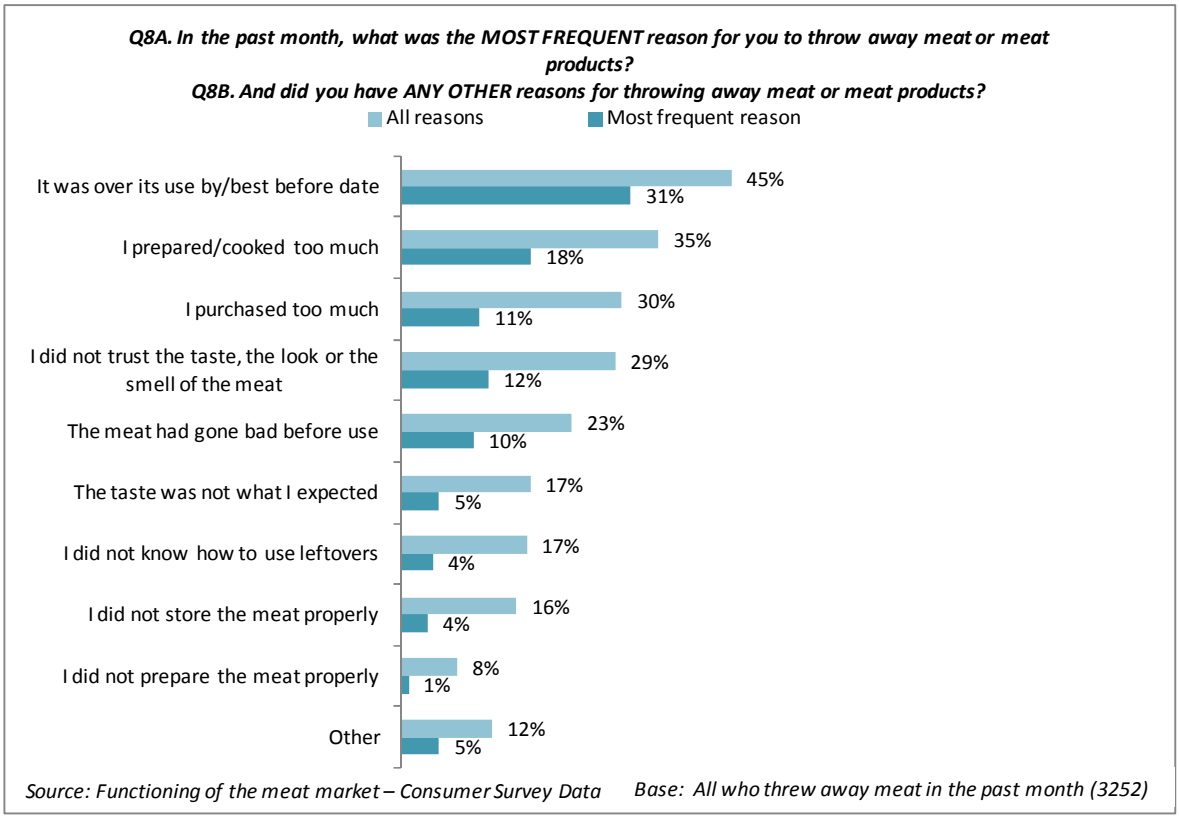
Q7. In the past month. how many times did you throw away edible parts of meat or meat products?		AGE			EATING FREQUENCY		
	EU27	18-34	35-54	55-75	High	Middle	Low
Basesize	**13477**	**3948**	**5518**	**4011**	**2623**	**8820**	**2034**
I have not thrown away meat or meat products in the past month	*76.8%*	*67.7%*	*76.9%*	*84.8%*	*71.2%*	*76.5%*	*83.5%*
(1-2)	*12.9%*	*16.2%*	*13.4%*	*9.3%*	*15%*	*13.1%*	*10%*
(3-5)	*7.2%*	*11.3%*	*6.5%*	*4.4%*	*9.9%*	*7.1%*	*5.1%*
(6++)	*3.1%*	*4.8%*	*3.2%*	*1.4%*	*4%*	*3.3%*	*1.4%*
All who threw away meat	***23.2%***	***32.3%***	***23.1%***	***15.2%***	***28.8%***	***23.5%***	***16.5%***

9.8.1 Reasons behind waste of meat and meat products

When asked for their most frequent reason for throwing meat away (Figure 79.), consumers mentioned that the **meat was over its use by date (31%)** or that **they prepared or cooked too much (18%).** Respondents were then asked for all other reasons they had to throw meat away. The same two answers come first when taking into account all reasons mentioned, with respectively 45% and 35% of all answers for the use by date and cooking too much.

As mentioned earlier, many consumers are not aware of their responsibility in the safety of meat. This could explain the low scores of 'I did not store the meat properly' and 'I did not prepare the meat properly.'

Figure 79. Q8A/B. Reasons for throwing meat away



Just under a third of consumers mentioned **purchasing too much** (30%) and **not trusting the taste, the look or the smell of the meat** (29%) as reasons to throw away meat.

The meat being over its use by date is mentioned as a reason for throwing meat away by 45% of consumers. This is the case for 46% of consumers in EU15 countries and 35% in EU12 countries. Consumers in Finland (63%), Ireland (62%) and Latvia (61%) are the most likely to mention this answer. At the other end of the spectrum, Bulgaria (14%) has the lowest proportion of consumers choosing this answer. [90] [91]

35% of consumers say they prepared or cooked too much meat. Greek (65%) and Cypriot (62%) consumers are the most likely to mention this reason, while only 6% of Hungarian consumers chose this answer. [92]

30% of consumers say they purchased too much meat. Estonian (46%) and German (38%) consumers mention this reason most frequently. At the bottom of the ranking, consumers in the Netherlands (19%), Cyprus, Romania and Malta (all 20%) are the least likely to have mentioned this reason. [93]

[90] Please see details in the consumer survey's technical report.
[91] Low base size for Portugal
[92] Please see details in the consumer survey's technical report.
[93] Please see details in the consumer survey's technical report.

Under a third (29%) of consumers mentions distrust in the intrinsic qualities of the meat as a reason to throw it away. This proportion is 35% or above for 6 countries: Romania, Slovakia, Lithuania, Belgium, Bulgaria and the Czech Republic. The lowest proportions are recorded for Greece (8%) and Cyprus (12%).[94]

Around a quarter (23%) of consumers say the meat had gone bad before the use by date. This proportion is higher for EU12 countries (31%) than for EU15 countries (22%). Poland and the Czech Republic have the highest frequencies for this answer with 44% and 34%. Luxembourg and Cyprus have the lowest frequencies with 7% and 8%.[95]

17% of consumers mention a taste different than expected as a reason to throw meat away. This reason is mentioned by 24% of consumers in EU12 countries, compared with 16% in EU15 countries. Bulgarian (41%) and Lithuanian (36%) consumers are the most likely to mention this answer. Malta has the lowest percentage for this answer, with 4%.[96] [97]

17% of consumers say they did not know how to use leftovers. Hungarian (41%) and Estonian (34%) consumers are the most likely to mention this reason, while Maltese consumers (4%) are the least likely to do so. [98]

16% of consumers say they did not store the meat properly. This proportion varies from 8% in the UK, Luxembourg, Finland and Malta, to 25% in Spain, Slovakia and Lithuania. [99] [100]

8% of consumers say they did not prepare the meat properly, with 8% in EU15 countries and 4% in EU12 countries. This proportion is the highest in Lithuania (15%), Austria (13%), Estonia (12%) and Germany (12%). Fewer than 4 respondents chose this answer in Poland, Cyprus, Greece, Hungary, Finland, Slovenia, Luxembourg, Bulgaria and Malta. [101] [102]

We comment below on significant differences between socio-demographic categories (Figure 80.).

Respondents aged 18-34 are more likely than other age groups to mention the following reasons for throwing meat away: I prepared or cooked too much (39.2%), **the meat had gone bad before the use by or best before date** (28.1%), **the taste was not what I expected** (22.7%) I did not know how to use the leftovers (22.7%) and I did not prepare the meat properly (11.9%).

[94] Please see details in the consumer survey's technical report.
[95] Please see details in the consumer survey's technical report.
[96] Please see details in the consumer survey's technical report.
[97] Low base size for Portugal
[98] Please see details in the consumer survey's technical report.
[99] Please see details in the consumer survey's technical report.
[100] Low base size for Portugal
[101] Please see details in the consumer survey's technical report.
[102] Low base size for Portugal

Figure 80. Q8. All reasons for throwing meat or meat products away

Q8. And did you have reasons for throwing away meat or meat products? All reasons		AGE		
Base: Have thrown away meat or meat products in the past month Q7	**EU27**	**18-34**	**35-54**	**55-75**
Basesize	**3252**	**1285**	**1322**	**645**
It was over its use by/best before date	*44.5%*	*49.2%*	*43.9%*	*36.8%*
The meat had gone bad before use by/best before date	*23%*	*28.1%*	*19.7%*	*19.5%*
The taste was not what I expected	*17.4%*	*22.7%*	*13.4%*	*14.9%*
I did not trust the taste. the look or the smell of the meat	*28.9%*	*30.2%*	*27%*	*30.3%*
I purchased too much	*29.8%*	*31.8%*	*27.4%*	*30.5%*
I prepared/cooked too much	*34.7%*	*39.2%*	*32.3%*	*30.8%*
I did not know how to use leftovers	*16.9%*	*22.7%*	*13.5%*	*12.6%*
I did not prepare the meat properly	*7.6%*	*11.9%*	*5%*	*4.5%*
I did not store the meat properly	*15.6%*	*16.6%*	*15.5%*	*14%*
Other	*12.3%*	*10.3%*	*11.5%*	*17.6%*

9.8.2 Consumer detriment due to waste

Finally, consumers who threw meat away were asked for an **estimated value of the loss they incurred as a result** (Figure 81.). **7% of consumers mentioned no financial loss, while other consumers mentioned on average an estimated loss of 9€ in the past month**. This average is lower for EU12 countries (6€) than for EU15 countries (9€). The highest average is for Luxembourg (13€), compared with 4€ for the lowest, in Latvia.

Consumers who reported higher losses also threw meat away more frequently than others: consumers who say they lost more than 20€ threw meat away 7 times in the past month on average, compared with an overall average of 3.5.

7% of consumers say they did not incur any financial losses as a result of throwing meat away, while a further 46% say they lost less than 5€. 9% of EU12 consumers say they did not lose any money, compared with a similar figure (7%) in EU15 countries. However, **the proportion of consumers who say they lost less than 5€ is much higher in EU12 countries (60%) than in EU15 countries (43%)**.[103]

Latvia has the highest proportion of consumers in the first two categories (no financial loss or loss under 5€), while Luxembourg has the lowest proportion. This could be linked to price levels, as the meat price index based on this study's price audit is 69 for Latvia and 133 for Luxembourg (with the EU average equal to 100).

[103] Please see details in the consumer survey's technical report.

Figure 81. Q9. Estimated value of meat thrown away in the past month. Mean value in Euros (excluding 0)

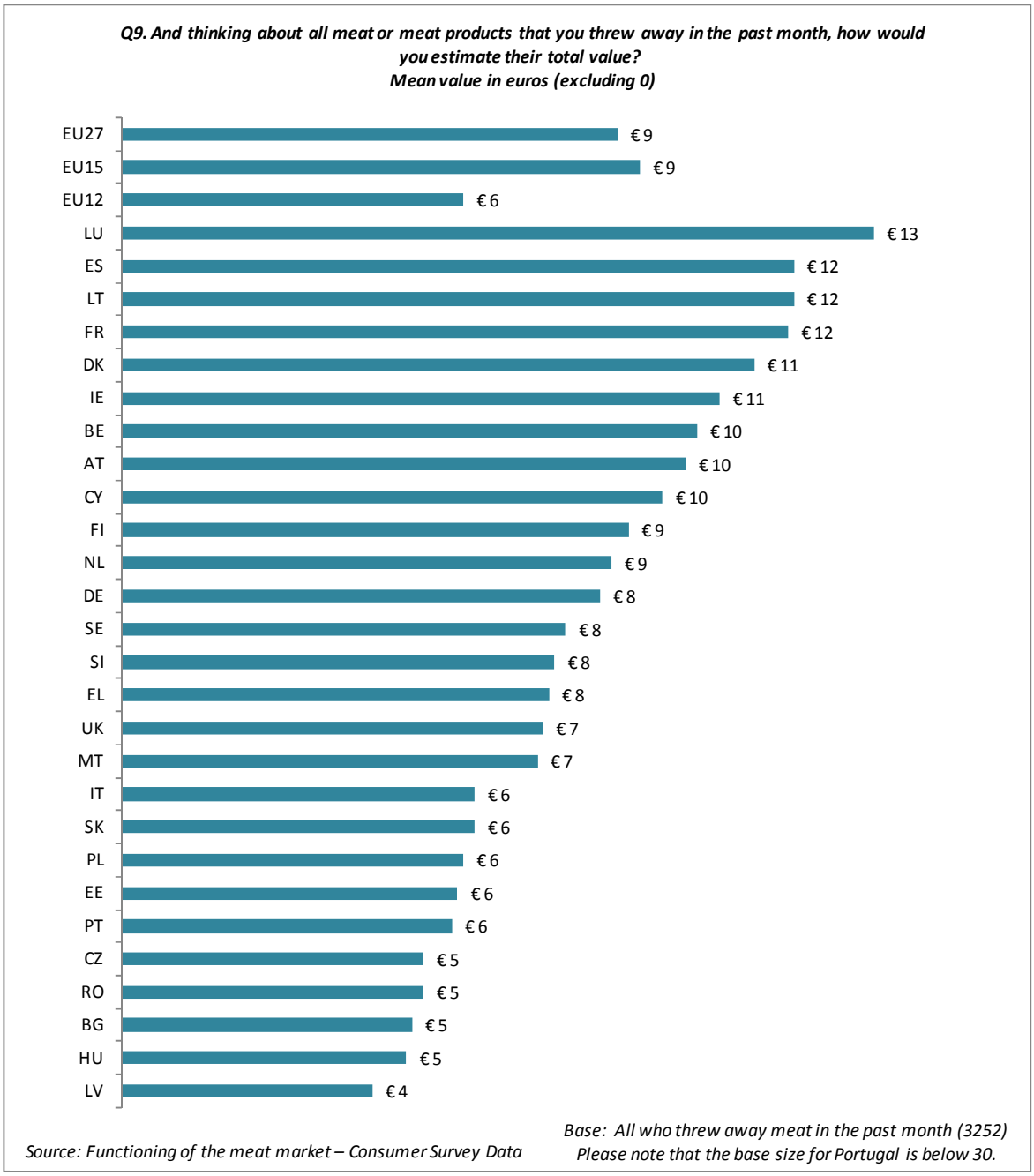


Figure 82. shows the average financial loss by socio-demographic characteristics. The average financial loss for women, 7€, is lower than for men (9.3€). The average financial loss seems to decrease with age, from 9€ among 18-34 year-olds to 6.6€ among 55-75 year-olds. It also seems to increase with the frequency of consumption: it is 6.5€ among low frequency consumers and 9.3€ among high frequency consumers.

Figure 82. Total value of meat or meat products thrown away in the past month

Q9. And thinking about all meat or meat products that you threw away in the past month. how would you estimate their total value?		GENDER		AGE			EATING FREQUENCY		
Base: Have thrown away meat or meat products in the past month Q7	**EU27**	**Male**	**Female**	**18-34**	**35-54**	**55-75**	**High**	**Middle**	**Low**
Basesize	**3252**	**1439**	**1813**	**1285**	**1322**	**645**	**710**	**2178**	**364**
None/no financial loss (0)	*6.9%*	*7.2%*	*6.6%*	*5.7%*	*6.6%*	*9.8%*	*6.5%*	*6.3%*	*10.5%*
Less than €5 (3)	*45.8%*	*41.6%*	*49.7%*	*40.8%*	*46.9%*	*53.2%*	*41.3%*	*46.8%*	*47.6%*
More than €5 but no more than €10 (7.5)	*26.1%*	*26.3%*	*25.9%*	*29.8%*	*24.8%*	*21.6%*	*27.1%*	*26.2%*	*23.7%*
More than €10 but no more than €20 (15)	*12.9%*	*14%*	*11.9%*	*13.7%*	*14.6%*	*8.1%*	*15.5%*	*12.6%*	*10.1%*
More than €20 but no more than €50 (35)	*4.2%*	*6.2%*	*2.3%*	*6.4%*	*3.1%*	*2%*	*6.4%*	*3.4%*	*4.5%*
More than €50 (75)	*1.5%*	*2.1%*	*1%*	*1.4%*	*1.6%*	*1.6%*	*1.8%*	*1.7%*	-
Don't know	*2.7%*	*2.6%*	*2.7%*	*2.2%*	*2.5%*	*3.8%*	*1.4%*	*2.9%*	*3.6%*
Mean incl. 0	**8.1**	**9.3**	**7**	**9**	**7.9**	**6.6**	**9.3**	**8**	**6.5**

10 Satisfaction

CHAPTER SUMMARY – SATISFACTION

Definition

Satisfaction includes post-purchase satisfaction linked to preparation and consumption. The drivers of satisfaction, both negative and positive, can be identified through additional analyses.

Main findings

- **Half of consumers (50%) are satisfied with the meat market overall (score 8-10 out of 10) and 6% are dissatisfied (score 0 to 4 out of 10)**. EU15 consumers are slightly more likely to be neutral and EU12 to be dissatisfied. However, the meat market is one of the lowest scoring goods markets in terms of 'Live up to what you wanted' and Market Performance Index in the 2011 Market monitoring survey.
- Looking at specific aspects of the meat market, **consumers are least satisfied with price** (20%) **and the availability of environment/climate certified meat** (18%) **and animal welfare certified meat** (20%).
- Consumers are **most satisfied with the general availability of meat** (58% satisfied) **and hygienic conditions** (51%).
- **Impact on health is a priority for improvement**. It has a high impact on overall satisfaction, but satisfaction levels with this aspect are below average. In contrast, results for intrinsic cues and general and country-specific availabilities are positive. These aspects have high levels of satisfaction and a high impact on overall satisfaction.
- EU12 consumers are more satisfied than EU15 consumers with general availability (64% compared with 56%), availability of meat produced in the consumer's country (49% and 43%) and packaging (42% and 38%). EU12 and EU15 consumers give similar scores to taste and safety in terms of foodborne diseases. EU15 consumers are slightly more satisfied than EU12 consumers with all other aspects.
- **Consumers who use butchers, farms or markets as their main retailer are more satisfied with freshness, taste and the availability of animal welfare certified meat and meat produced in the consumer's country**. Overall, older consumers, urban consumers and high frequency consumers are more satisfied than average with a range of aspects.

- The impact of market aspects on overall satisfaction was calculated using a method derived from the Kano theory. **Changes in the satisfaction levels with taste, freshness and the availability of meat produced in the consumer's country can change significantly the overall level of satisfaction of both satisfied and dissatisfied consumers**. These are key elements of consumer satisfaction. Hygienic conditions, general availability, impact on health and time before the use by/best before date have a high impact on dissatisfied consumers, while safety in terms of foodborne diseases has a high impact on satisfied consumers.

- Research shows that **7% of consumers reported problems related to the meat market in 2011 and that 77% of these complained**.

Consumers seem satisfied with the meat market in general, but a number of aspects need to be improved: prices, the availability of specific meat types and the impact of meat on health.

Research questions

What is the frequency and nature of complaints? To what extent consumers are satisfied with complaint handling? How prevalent are the unfair commercial practices?

This chapter starts with an overview of consumer satisfaction with the meat market based on secondary data, including general satisfaction, areas for improvement, complaints and unfair commercial practices. This is followed by an analysis of the results of the 2011 consumer survey in terms of overall satisfaction and satisfaction with specific aspects of the market. The final section highlight which aspects of the market should be improved as a priority based on their impact on overall satisfaction.

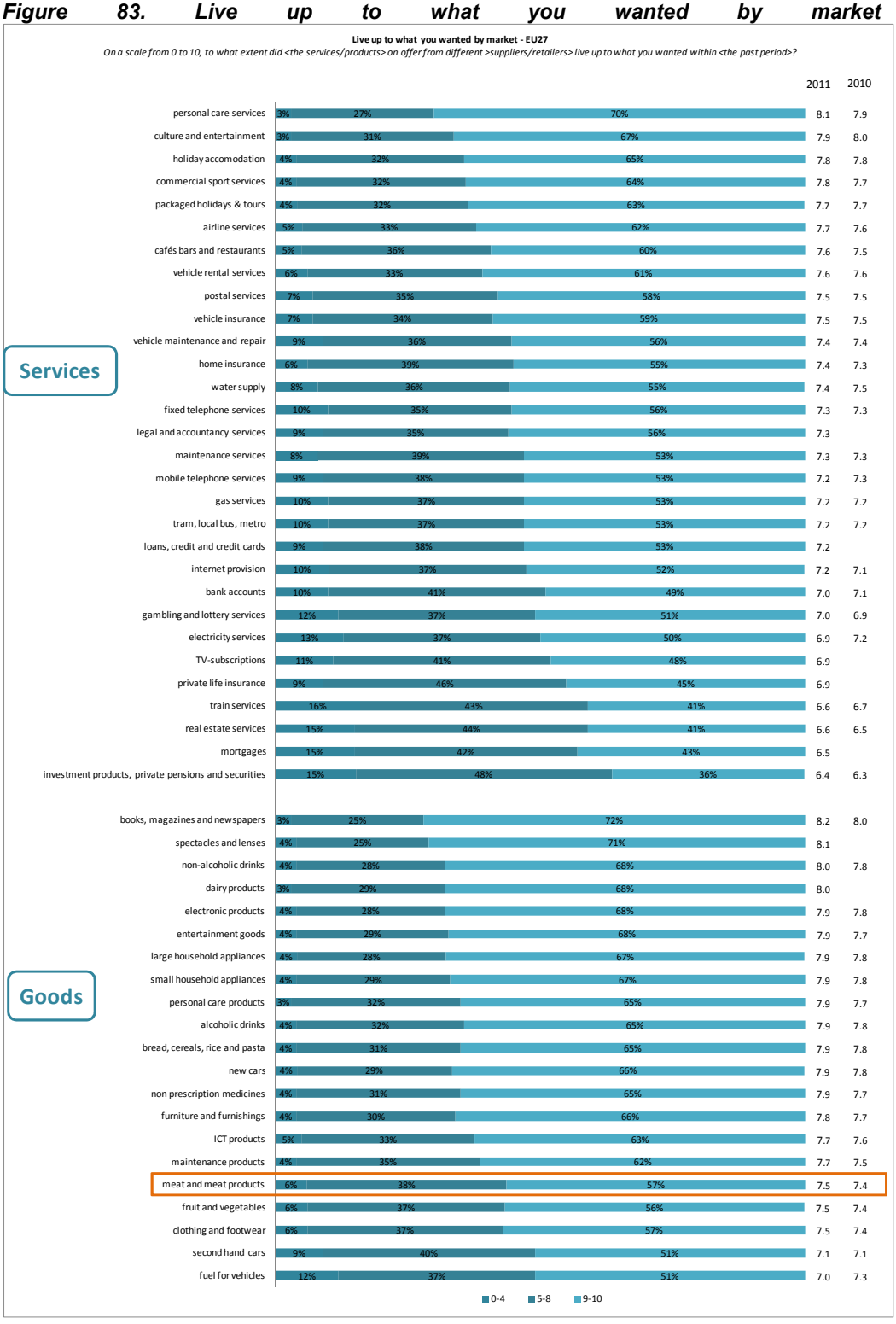
10.1 General satisfaction with the meat market versus other consumer markets

The Market monitoring survey (GfK, 2010 and 2011) measured consumers' satisfaction with the meat market (among 51 other consumer markets) by asking whether or not the market lives up to their expectations in their opinion (Figure 83.).

Between 2010 and 2011, the scores for this component remain very similar in most countries. In 2011 a majority of EU consumers (57%) indicated that the market of meat and meat products lives up to their expectations. 6% expressed high levels of dissatisfaction in this respect, while the remaining consumers are neutral. However, when taking into account all goods markets surveyed in the Market monitoring survey, the meat market is among the lowest scoring goods markets.

The average EU score for 'lives up to my expectations' is 7.5. Malta, Finland and the UK have the highest average scores, which are above 8 out of 10. Bulgaria, Romania and Poland have the lowest scores on this component, with averages below 7 out of 10.

Figure 83. Live up to what you wanted by market – EU27



(GfK, 2011)

10.2 Areas for improvement identified in the 2009 consumer satisfaction survey

The consumer satisfaction survey carried out in 2009 (Ipsos) focused on several aspects of the meat market: the quality and price of products and services, trust, problems and consumer satisfaction. **Three main components were defined as drivers of satisfaction in the meat market: price/quality, service and trust**. The survey showed that 67% of consumers were satisfied (scores 8-10 on a 10-point scale) with all aspects relating to the three components, implying a high overall satisfaction with the meat market.

Quality of service had the highest satisfaction level, but the results show that trust matters the most to consumers. Consumers were satisfied with this component overall and particularly about the limited occurrence of aggressive practices in purchasing situation. However, **the study also identified a number of areas where the meat market was not functioning in a satisfactory manner for consumers: privacy protection, trustworthiness of staff and advertising**. Figure 84. shows the areas where priority actions were deemed necessary in order to improve consumers' satisfaction with the meat market.

Figure 84. Priority areas to improve consumers' satisfaction with the meat market

Average: 66.92%

Importance +

Satisfaction -			Satisfaction +
Priority actions →		Ideal situation	
TRUSTWORTHY STAFF	66.5%	(AGGRESSIVE PRACTICES	79.7%)
ADVERTISING	63.0%	OVERALL TRUST	69.0%
PROTECTION OF PRIVACY	62.1%	EASE OF PURCHASE	77.8%
Low importance area		Long term actions	
OVERALL PRICE	65.6%	SECURE PAYMENTS	78.2%
CHOICE OF QUALITIES	65.0%	SAFETY	74.1%
CHOICE OF PRICES	64.7%	TRANSPARENCY	74.1%
QUALITY COMPARABILITY	64.7%	PRICE COMPARABILITY	66.9%
PRODUCT LABELING	64.3%		
AFFORDABILITY	60.0%		
INNOVATION	58.8%		
ENVIRONMENT-FRIENDLY PRODUCTS	56.7%		
ETHICAL STANDARDS	53.0%		

Importance -

(Ipsos, 2009)

10.3 Complaints and their handling

The level of problems experienced by consumers in a given market is a clear signal regarding the functioning of the market. This aspect is measured in the Market monitoring survey (GfK, 2011) and shown on Figure 85. **In 2011, 7% of EU consumers reported that they had experienced problems in the meat market when thinking about their last purchase.** There was no change in the occurrence of problems in comparison to 2010. In comparison to the other goods markets shown in the table below, the proportion of problems is close to the average incidence across the markets.

The proportion of consumers encountering problems with the meat and meat product market was the highest in Romania (14.6%), Slovakia (14.5%), Bulgaria (12.0%), Poland (11.7%), Lithuania (10.5%) and Hungary (10.4%). With the exception of Poland, one can note a positive evolution for all these countries. The lowest proportions of consumers encountering problems can be found in the Netherlands (2.6%), Slovenia (3.2%), Spain (3.6%), Finland (3.7%) and the UK (3.7%).

Figure 85. Proportion of consumers who experienced problems with the meat and meat product market in comparison to other goods markets

		Problems2011		N° Problems 2011					Problems2010	
#	Goods markets	Yes	No	0	1	2	3	4+	Yes2	No2
16	Second hand cars	18%	82%	82%	10%	3%	2%	2%	19%	81%
15	New cars	13%	87%	87%	8%	3%	1%	2%	15%	85%
13	ICT products	13%	87%	87%	8%	2%	1%	1%	13%	87%
10	Other electronic products	10%	90%	90%	7%	2%	1%	1%	9%	91%
11	Large household appliances	10%	90%	90%	7%	2%	1%	1%	11%	89%
7	Clothing and footwear	10%	90%	90%	10%	n.a.	n.a.	n.a.	10%	90%
9	Furniture and furnishings	10%	90%	90%	7%	2%	1%	1%	11%	89%
8	Maintenance products	9%	91%	91%	5%	1%	1%	1%	11%	89%
12	Small household appliances	9%	91%	91%	6%	2%	1%	1%	11%	89%
1	Fruit and vegetables	8%	92%	92%	8%	n.a.	n.a.	n.a.	8%	92%
53	Spectacles and lenses	8%	92%	92%	8%	n.a.	n.a.	n.a.		
2	Meat and meat products	7%	93%	93%	7%	n.a.	n.a.	n.a.	7%	93%
17	Fuel for vehicles	7%	93%	93%	7%	n.a.	n.a.	n.a.	6%	94%
14	Entertainment goods	6%	94%	94%	4%	1%	1%	1%	10%	90%
48	Non-prescription medicines	5%	95%	95%	5%	n.a.	n.a.	n.a.	4%	96%
55	Dairy products	5%	95%	95%	5%	n.a.	n.a.	n.a.		
3	Bread, cereals, rice and pasta	4%	96%	96%	4%	n.a.	n.a.	n.a.	4%	96%
19	Personal care products	4%	96%	96%	4%	n.a.	n.a.	n.a.	4%	96%
6	Alcoholic drinks	4%	96%	96%	4%	n.a.	n.a.	n.a.	3%	97%
18	Books, magazines and newspapers	4%	96%	96%	4%	n.a.	n.a.	n.a.	3%	97%
5	Non-alcoholic drinks	3%	97%	97%	3%	n.a.	n.a.	n.a.	3%	97%

(GfK, 2011)

As shown on Figure 86., **77% of the consumers who encountered a problem complained about the problem they encountered, mainly to their retailer** (63%) or to friends and family (23%). EU consumers were very unlikely to complain to an official party or to the producer. In comparison to other goods markets, consumers are relatively less likely to complain than on most other markets surveyed.

Figure 86. Proportion of consumers who complained among those who encountered a problem

#	Product market	TOTAL complained	To a retailer/ provider	To a manufacturer	To a third party company	To friends, family	Did not complain
13	ICT products	87%	73%	17%	5%	35%	13%
15	New cars	87%	76%	17%	5%	31%	13%
9	Furniture and furnishings	86%	73%	12%	4%	30%	14%
48	Non prescription medicines	84%	72%	14%	5%	16%	16%
11	Large household appliances	84%	72%	18%	6%	30%	16%
6	Alcoholic drinks	82%	73%	13%	3%	18%	18%
12	Small household appliances	81%	66%	11%	4%	27%	19%
7	Clothing and footwear	81%	67%	8%	3%	34%	19%
19	Personal care products	81%	70%	18%	4%	18%	19%
18	Books, magazines and newspapers	80%	70%	12%	6%	15%	20%
10	Electronic products	80%	67%	13%	3%	31%	20%
16	Second hand cars	80%	65%	4%	5%	33%	20%
3	Bread, cereals, rice and pasta	78%	63%	7%	2%	20%	22%
53	Spectacles and lenses	78%	67%	5%	1%	22%	22%
14	Entertainment goods	78%	59%	7%	3%	31%	22%
2	Meat and meat products	77%	63%	6%	2%	23%	23%
8	Maintenance products	77%	63%	8%	4%	25%	23%
17	Fuel for vehicles	75%	58%	N/A	9%	26%	25%
55	Dairy products	73%	55%	5%	1%	24%	27%
1	Fruit and vegetables	70%	56%	5%	2%	25%	30%
5	Non-alcoholic drinks	69%	55%	4%	2%	19%	31%

(GfK, 2011)

The market monitoring survey did not identify **the types of problems encountered** by EU consumers but the consumer satisfaction survey carried out in 2009 (Ipsos, 2009) revealed that an overwhelming majority of problems concerned the **quality of the product** (74%), such as freshness. **Price** caused problems for 13% and **quality of service** for 10% of consumers.

Furthermore, the survey showed that **for 4 consumers in 5 who complained about a problem in the meat market, the problem was solved and a satisfactory solution found by the retailer**. Problems were more likely to be dealt in a satisfactory manner in the EU15 countries (79%) than in the EU12 countries (64%).

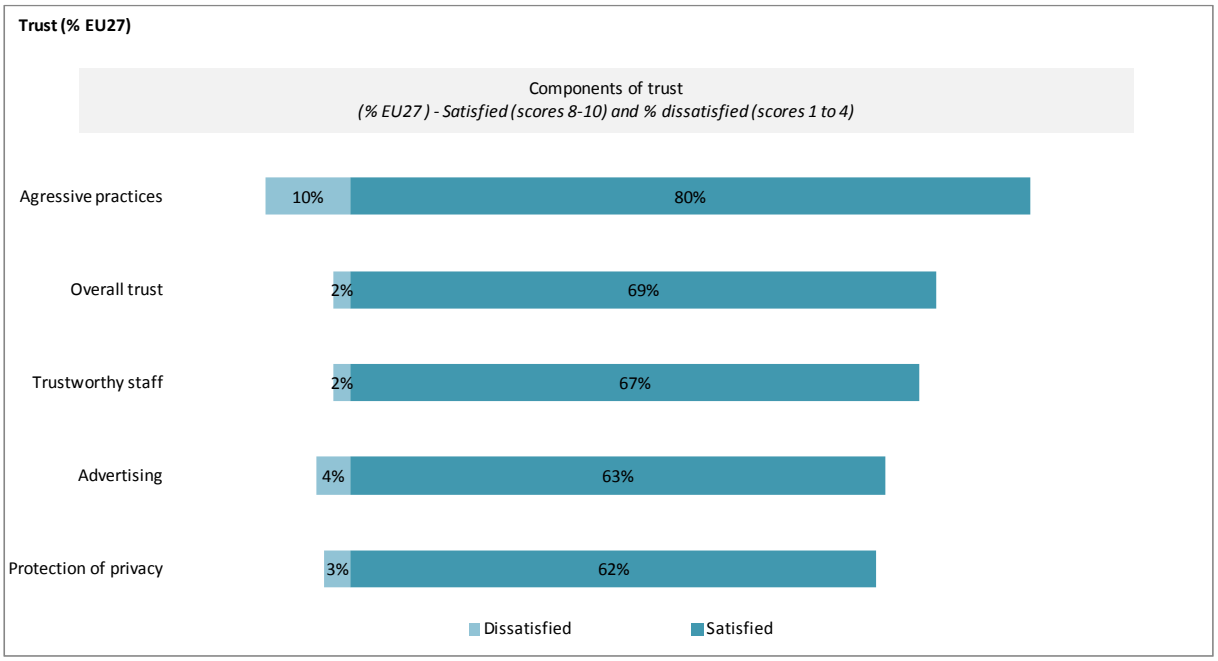
10.4 Unfair commercial practices

Unfair commercial practices encountered in the meat market are likely to have an impact on the level of satisfaction. Unfair practices cover actions such as deceiving advertising by the retailer, trustworthy staff that gives accurate information to consumers, aggressive commercial practices and protection of the privacy of consumers (Ipsos, 2009).

A consumers satisfaction survey carried out in 2009 (Ipsos) revealed that **a majority of EU consumers is satisfied regarding different areas of unfair commercial practices (Figure** 86.**)**. The survey compared seven markets of consumer goods. The majority of consumers expressed high satisfaction with the way the meat market is functioning regarding aggressive practices (80%, highest scoring market although 10% of

consumers were dissatisfied with this trust component), trustworthy staff at retailer (67%, second highest scoring market), advertising (63%, second highest scoring market) and protection of privacy (62%, second highest scoring market).

Figure 87. Components of trust

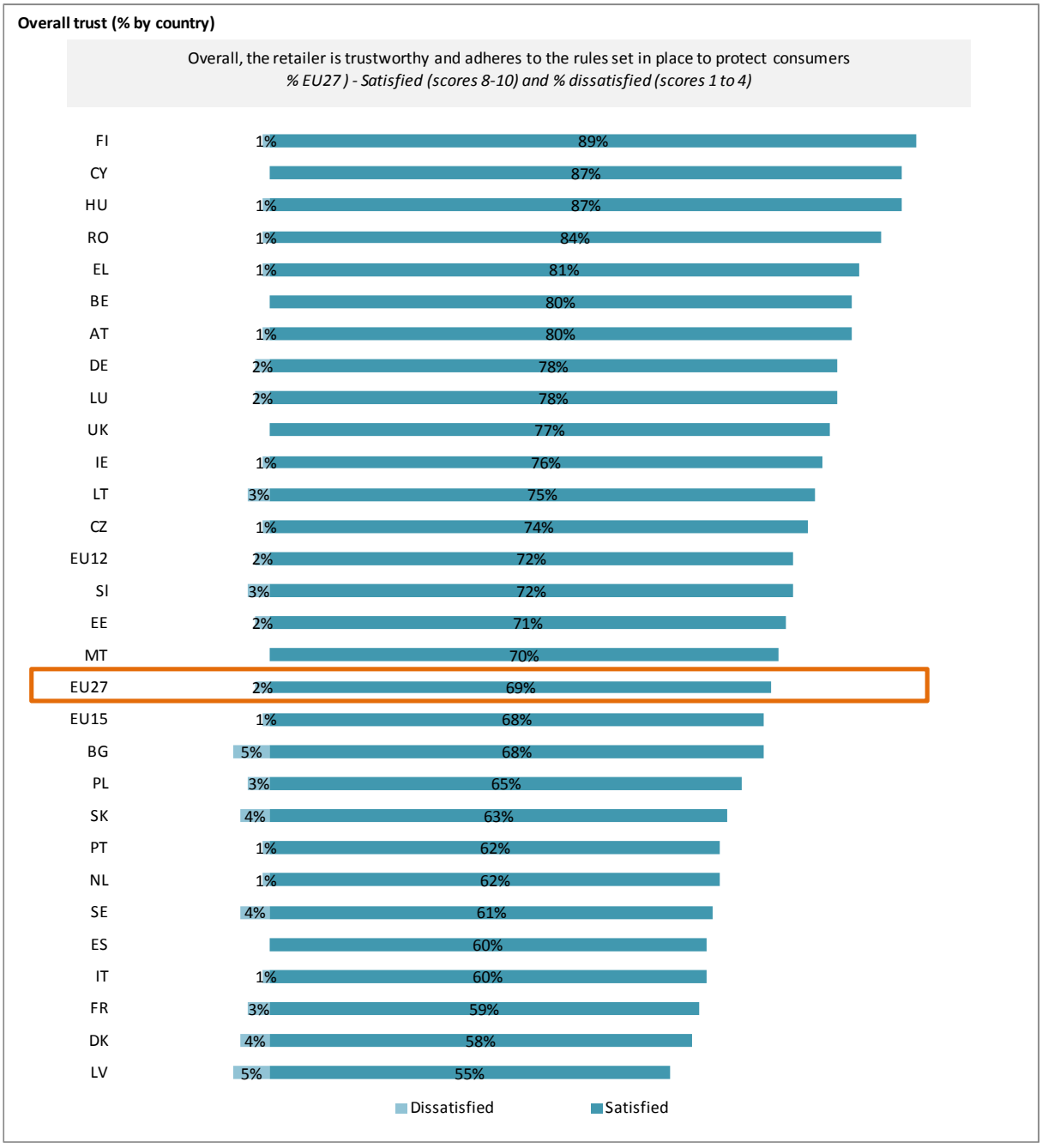


(Ipsos, 2009)

Furthermore, **69% of EU consumers expressed high levels of satisfaction regarding the overall trustworthiness of the retailer in terms of protecting the consumer rights (Figure** 88.**)**. This was the highest score out of the seven markets surveyed, with 64% being the lowest score for this item. Consumers in the EU12 were somewhat more likely to be satisfied in this respect than consumers in the EU15 (72% vs. 68%). Results varies across Member States but the majority of consumers was satisfied in all countries.

However, these positive findings need to be nuanced, as other survey data shows that consumers have a limited ability to understand labelling and assess meat quality. As a result, some consumers may have experienced unfair commercial practices without being aware of it.

Figure 88. Overall trust in retailer by country



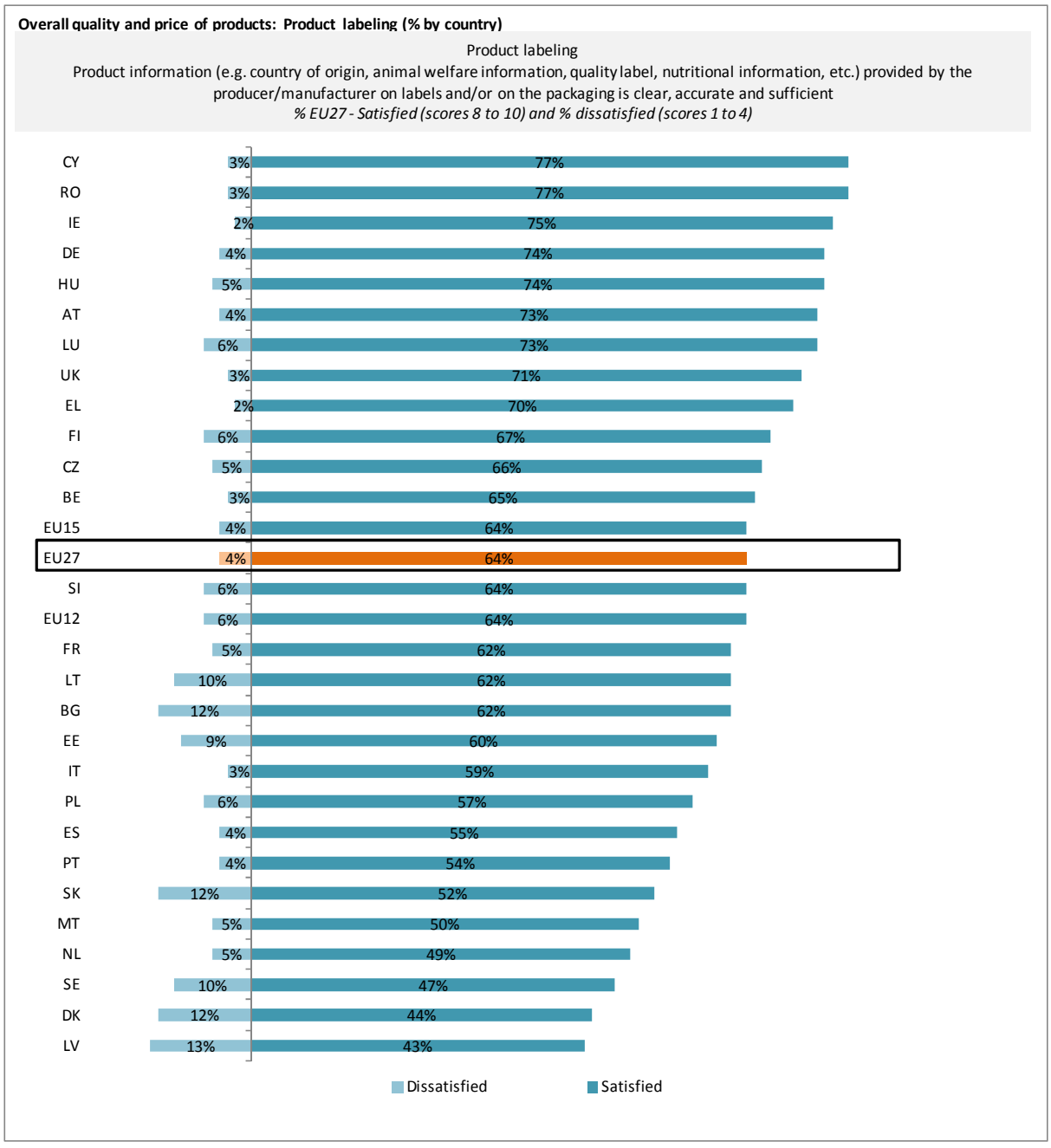
(Ipsos, 2009)

10.5 Satisfaction with product information

In 2009, 64% of EU consumers said that they were satisfied when asked whether they thought product information (e.g. country of origin, animal welfare information, quality label, nutritional information, etc.) provided by the producer on meat labels was clear, accurate and sufficient (**Figure** 89.**,** Ipsos, 2009). Only 4% were dissatisfied.

No difference is observed between consumers residing in the EU15 countries and the EU12 countries. However, relatively large variations in the levels of satisfaction are detected between individual Member States. At the highest end, 77% of Cypriot and Romanian consumers express satisfaction in this respect while less than half of consumers in the Netherlands (45%), Sweden (47%), Denmark (44%) and Latvia (43%) share this opinion. Levels of dissatisfaction remain low across the Member States.

Figure 89. Product information on labels and/or on the packaging



(Ipsos, 2009)

10.6 General satisfaction with meat available in the market

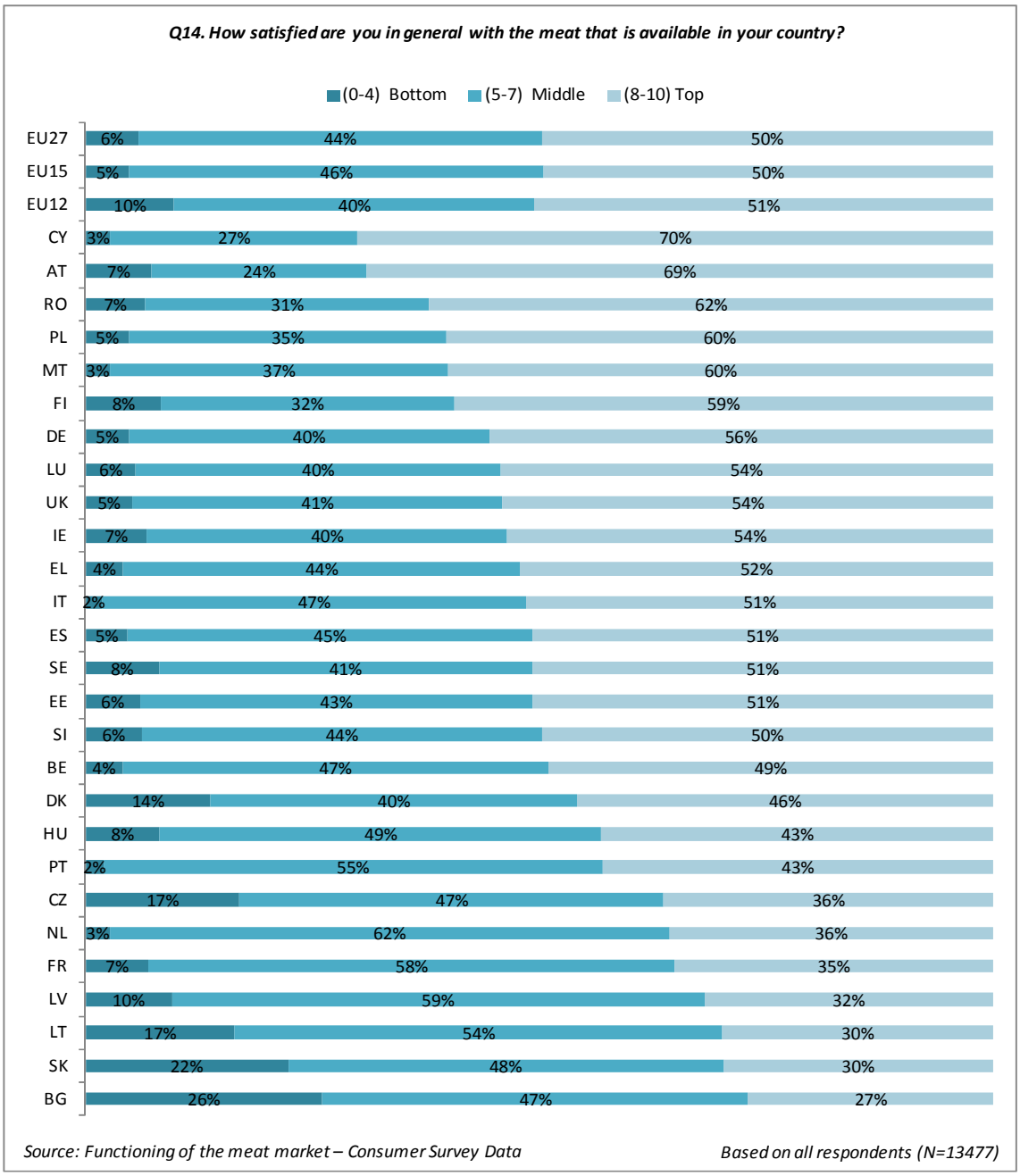
10.6.1 Overall results

Figure 90. shows overall satisfaction with the meat market by country. Overall, **50% of consumers are satisfied with the meat available in their country** (score 8 to 10 out of 10), **while 6% are dissatisfied** (score 0 to 4 out of 10). The average satisfaction score is 7.3 out of 10. In spite of these results, the meat market ranks fairly low among good markets based on the Market Performance Index ranking of the 2011 Market monitoring survey (GfK, 2011).

Besides, this average hides **large differences across countries**. Cyprus (70%) and Austria (69%) have the highest proportions of satisfied customers, while Bulgaria (27%), Slovakia and Lithuania (both 30%) have the lowest proportions. These two countries also have the highest proportions of dissatisfied consumers (score 0-4) with 26% in Bulgaria and 22% in Slovakia. The lowest proportions of dissatisfied consumers can be found in Italy and Portugal (both 2%).

Consumers in the EU15 are more likely to be neutral (score 5 to 7 out of 10) than consumers in the EU12, with respective figures of 46% and 40%. **EU12 respondents are more likely to be dissatisfied** (score 0-4) with 10% of consumers in this category, compared with 5% in the EU15.

Figure 90. Q14. Overall satisfaction with the meat available in the consumer's country



Source: Functioning of the meat market – Consumer Survey Data

Based on all respondents (N=13477)

10.6.2 Satisfaction with specific aspects

The 2011 consumer survey measured EU consumers' general satisfaction with the meat available in the country as well as their satisfaction with the following aspects of the meat market:

- Price
- Freshness
- Taste
- Packaging
- Hygienic conditions
- Time before reaching use by/best before date
- Impact on health
- Availability of meat in general
- Availability of organic meat
- Availability of animal welfare certified meat
- Availability of environment/climate certified meat
- Availability of meat produced in my country
- Availability of meat produced in the EU
- Safety in terms of bacterial contaminations such as salmonella or listeria
- Safety in terms of residues and pollutants such as antibiotics or dioxins
- Safety in terms of food borne diseases such as BSE (so called 'mad cow disease') or avian influenza

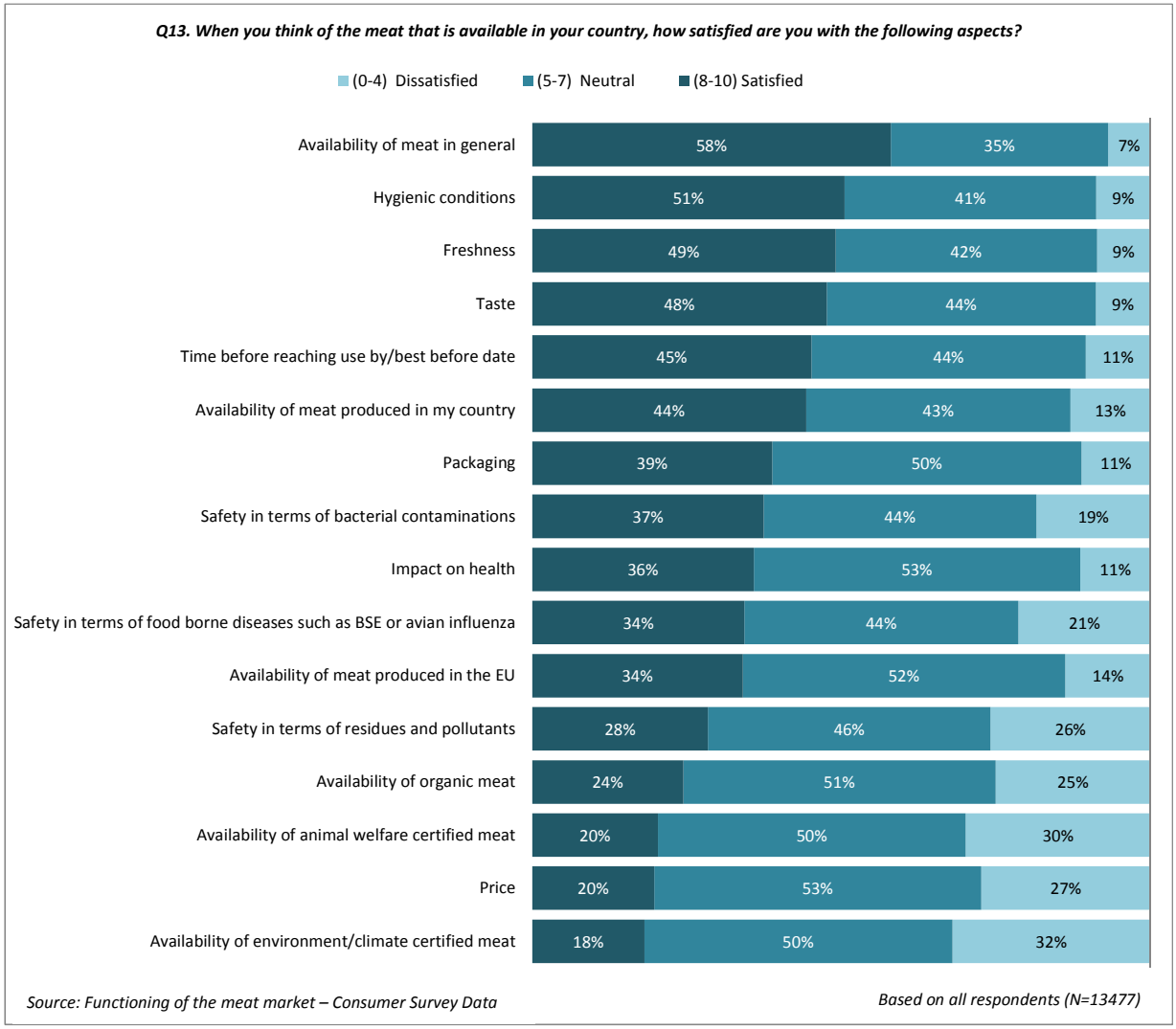
Answers were given on a scale from 0 (Completely dissatisfied) to 10 (Completely satisfied). In the following analysis, consumers are split into three categories: satisfied (score 8-10 out of 10), neutral (score 5-7) and dissatisfied (score 0-4). Figure 91. shows the proportion of consumers in each category for each aspect.

More than half of consumers are satisfied (score 8-10**) with two specific aspects**: **availability of meat in general** (58% satisfied) and **hygienic conditions** (51%). Respectively 7% and 9% of consumers are dissatisfied with these aspects.

Freshness (49%), **taste** (48%), **time before reaching use by or best before date** (45%) and **availability of meat produced in my country** (44%) **come next in terms of proportions of satisfied consumers**.

At the bottom of the ranking, the aspects with the lowest proportion of satisfied consumers are availability of environment or climate certified meat (18%), **price** (20%) and **availability of animal welfare certified meat** (20%). These aspects also have high proportions of dissatisfied consumers, with respectively 32%, 27% and 30%.

Figure 91. Q13. Satisfaction with specific aspects of meat available in consumer's country



Detailed country data is presented in the technical report from the consumer opinion survey. The main country level differences are described below.

Consumers are most satisfied with the availability of meat in general. 58% of consumers are satisfied with this aspect and only 7% are dissatisfied. The proportion of satisfied consumers is higher for EU12 countries (64%) than for EU15 countries (56%). Poland and Cyprus are at the top of the ranking with 74% of satisfied consumers. Latvia is at the other end of the ranking with 30% of satisfied consumers. [104]

51% of consumers are satisfied with hygienic condition, but 41% of consumers do not have a strong opinion and 9% are dissatisfied, despite the fact that the market is highly regulated. The proportion of satisfied consumers is lower for EU12 countries (45%) than for EU15 countries (52%). The highest proportions of

[104] Please see details in the consumer survey's technical report.

satisfied consumers are in Austria and Malta (65%) and Finland (64%). Slovakia comes last with 23% of satisfied consumers. [105]

49% of consumers are satisfied with freshness, while 9% are dissatisfied with this aspect. The proportion of satisfied consumers is also lower for EU12 countries (45%) than for EU15 countries (50%). Cyprus (73%) and Malta (72%) are at the top of the ranking. Slovakia (20%) and the Czech Republic (24%) are at the other end of the ranking. [106]

48% of consumers are satisfied with taste and another 9% are dissatisfied. Cyprus has the highest proportion of satisfied consumers with 73%. The Czech Republic (24%) and Slovakia (25%) have the lowest proportions.[107]

45% of consumers are satisfied with the time before a product reaches the use by or best before date. 11% are dissatisfied with this aspect..46% of EU15 consumers are satisfied, compared with 42% in the EU12. Austria and Germany (both 55%) have the highest proportion of satisfied consumers. Slovakia, with 21%, has the lowest proportion.[108]

44% of consumers are satisfied with the availability of meat produced in the consumer's country, compared with 13% who are dissatisfied. 49% of EU12 consumers are satisfied, compared with 43% in the EU15. Cyprus has the highest proportion of satisfied consumers with 74%, while Slovakia (24%), the Netherlands (25%) and the Czech Republic (26%) have the lowest proportions. [109]

39% of consumers are satisfied with meat packaging and 11% are dissatisfied with this aspect. 42% of EU12 consumers are satisfied with this aspect, while this figure is 38% in the EU15. Romania and Malta have the highest proportions of satisfied consumers with respectively 55% and 54%. Slovakia (26%) and Czech Republic (27%) have the lowest proportions. [110]

37% of consumers are satisfied with safety in terms of bacterial contaminations. 19% are dissatisfied. The proportion of satisfied consumers is 38% in the EU15 and 34% in the EU12. This figure is the highest in Finland (59%) and Austria (54%) and the lowest in Slovakia (18%), Latvia and Lithuania (19%).[111]

36% of consumers gave the impact of meat on health an 8-10 score, while 11% fall in the dissatisfied category. EU12 countries have lower scores than EU15 countries, with averages of respectively 34% and 36%. Romania (45%), Austria and Malta (both 44%) have the highest proportions of satisfied consumers. The lowest proportions are found in Slovakia (18%) and Latvia (19%).[112]

34% are satisfied with safety in terms of food borne diseases and 21% are dissatisfied. Finland (51%) and Austria (50%) have the highest proportions. Lithuania (17%), Slovakia (18%) and Bulgaria (19%) register the lowest proportions. [113]

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[105] Please see details in the consumer survey's technical report.
[106] Please see details in the consumer survey's technical report.
[107] Please see details in the consumer survey's technical report.
[108] Please see details in the consumer survey's technical report.
[109] Please see details in the consumer survey's technical report.
[110] Please see details in the consumer survey's technical report.
[111] Please see details in the consumer survey's technical report.
[112] Please see details in the consumer survey's technical report.
[113] Please see details in the consumer survey's technical report.

34% of consumers are satisfied with the availability of meat produced in the EU, with 36% in EU15 countries and 29% for EU12 countries. 14% of consumers are dissatisfied overall. Austria comes first with 49% of satisfied consumers, while Bulgaria is at the other end of the spectrum with 13%.[114]

28% of consumers are satisfied with safety in terms of residues and pollutants, while 26% are dissatisfied. 29% of EU15 consumers are satisfied, compared with 26% in the EU12. Finland (42%), the UK and Austria (both 40%) have the highest proportions of satisfied consumers. Lithuania (9%) and Slovakia (11%) have the lowest proportions. [115]

Only 24% of consumers are satisfied with the availability of organic meat, but a higher proportion, 25% is dissatisfied with this aspect. 27% of EU15 consumers are satisfied and 20% are dissatisfied. These figures are respectively 16% and 43% in the EU12. Austria has the highest proportion of satisfied consumers with 45% and Cyprus the lowest with 4%.[116]

20% of consumers are satisfied with the availability of animal welfare certified meat while 30% are dissatisfied with this aspect. These figures are respectively 22% and 25% in the EU15, and 14% and 47% in the EU12. Austrian consumers are the most likely to be satisfied with this aspect with 32%, while Bulgarian (4%) and Lithuanian (6%) consumers are the least likely to be satisfied. [117]

Only 20% of consumers are satisfied with price, while 27% are dissatisfied. 21% of EU15 consumers are satisfied with this aspect, compared with 14% in the EU12. In parallel, 40% of EU12 consumers are dissatisfied, compared with 24% of EU15 consumers. Germany (30%) and Cyprus (29%) have the highest proportion of satisfied consumers. Estonia (5%) and Slovakia (6%) have the lowest proportions. [118]

Consumers are the least likely to be satisfied with the availability of environmental or climate certified meat, with 18% of satisfied consumers and 32% of dissatisfied consumers. 20% of EU15 consumers are satisfied, compared with 12% in the EU12. In contrast, 50% of EU12 consumers are dissatisfied, compared with 27% in the EU15. Austrian consumers are the most likely to be satisfied with 30%, while Bulgarian consumers are the least likely to be in this category with 4%.[119]

Significant differences are visible in terms of satisfaction between consumers who use supermarkets or equivalent retailers as their main retailer and consumers who use butchers, markets or farms as their main retailer. Consumers in the second group are more likely than the first group to be satisfied with freshness, taste, the availability of animal welfare certified meat and the availability of meat produced in their country.

10.6.3 Results by socio-demographic category

We describe below all significant differences between socio-demographic categories in terms of satisfaction (Figures 92. to 96.).

[114] Please see details in the consumer survey's technical report.
[115] Please see details in the consumer survey's technical report.
[116] Please see details in the consumer survey's technical report.
[117] Please see details in the consumer survey's technical report.
[118] Please see details in the consumer survey's technical report.
[119] Please see details in the consumer survey's technical report.

Figure 92. Q14. Overall satisfaction with the meat available in the consumer's country – By socio-demographic characteristics

Q14. And how satisfied are you in general with the meat that is available in your country?		GENDER		AGE			EATING FREQUENCY		
Meat available in your country	EU27	Male	Female	18-34	35-54	55-75	High	Middle	Low
Basesize	**13477**	**6298**	**7179**	**3948**	**5518**	**4011**	**2623**	**8820**	**2034**
(0) Not satisfied at all	*0.4%*	*0.3%*	*0.5%*	*0.5%*	*0.5%*	*0.2%*	*0.3%*	*0.4%*	*0.7%*
1	*0.3%*	*0.3%*	*0.3%*	*0.4%*	*0.2%*	*0.4%*	*0.2%*	*0.3%*	*0.5%*
2	*0.8%*	*0.9%*	*0.6%*	*1%*	*0.7%*	*0.7%*	*1%*	*0.7%*	*1.1%*
3	*1.6%*	*1.6%*	*1.7%*	*1.6%*	*2%*	*1.3%*	*1.9%*	*1.4%*	*2.6%*
4	*2.7%*	*2.2%*	*3.2%*	*3.4%*	*2.6%*	*2.2%*	*2.7%*	*2.6%*	*3.3%*
5	*10.1%*	*9%*	*11.2%*	*11.3%*	*10.8%*	*8.2%*	*9.1%*	*9.7%*	*12.8%*
6	*12.8%*	*11.6%*	*14%*	*13.5%*	*14.1%*	*10.5%*	*9.9%*	*13.4%*	*13.6%*
7	*21.4%*	*20.4%*	*22.4%*	*22.1%*	*20.9%*	*21.5%*	*18%*	*22.1%*	*22.1%*
8	*24.9%*	*26.8%*	*23%*	*22.2%*	*25.1%*	*27%*	*24.5%*	*25.4%*	*23.2%*
9	*15%*	*16.3%*	*13.8%*	*13.7%*	*14.4%*	*17%*	*17.8%*	*14.9%*	*12.8%*
(10) Very satisfied	*9.9%*	*10.5%*	*9.2%*	*10.3%*	*8.7%*	*10.9%*	*14.6%*	*9.2%*	*7.6%*
(0-4) Bottom	***5.9%***	***5.5%***	***6.3%***	***6.9%***	***6%***	***4.8%***	***6.1%***	***5.3%***	***8%***
(5-7) Middle	***44.4%***	***41%***	***47.6%***	***46.9%***	***45.8%***	***40.2%***	***37%***	***45.2%***	***48.4%***
(8-10) Top	***49.8%***	***53.6%***	***46.1%***	***46.2%***	***48.2%***	***54.9%***	***56.9%***	***49.5%***	***43.5%***

Looking at **overall satisfaction with the meat available in the consumer's country**, there is a difference between male and female consumers in the middle category (5-7) of satisfaction. Women (47,6%) are more likely to be neutral (score 5-7) than men (41.0%).

55-75 year olds are more likely to be satisfied (scores 8-10) than the other age groups, with 54.9% in this category, compared with 18-34 year-olds (46,2%) and 35-54 year-olds (48,2%).

As for the eating frequency, **high frequency consumers are more likely to be satisfied** (56,9%) compared with the low (43.5%) and medium (49.5%) frequency consumers.

Figure 93. Q13. Satisfaction with the availability of meat in general - By socio-demographic characteristics

Q13. When you think of the meat that is available in your country. how satisfied are you with the following aspects?	AGE				AREA		MEAT PURCHASED				EATING FREQUENCY		
Availability of meat in general	EU27	18-34	35-54	55-75	URBAN	RURAL	Fresh meat	Meat products	Nonpackaged	Packaged	High	Middle	Low
Basesize	13477	3948	5518	4011	7575	5902	13222	12492	10037	11725	2623	8820	2034
(0) Not satisfied at all	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%	0.7%	0.5%	0.6%	1.4%
1	0.4%	0.3%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.2%	0.4%	0.6%
2	1%	1.3%	0.9%	0.9%	1%	1%	1%	0.9%	1%	1%	1%	0.9%	1.6%
3	1.8%	2.4%	1.6%	1.4%	1.3%	2.4%	1.7%	1.7%	1.7%	1.7%	2%	1.8%	1.5%
4	3%	4.3%	2.9%	2%	3.1%	2.8%	3%	2.9%	3%	3.1%	3.1%	3%	2.6%
5	9.8%	10.9%	9.6%	9.1%	9.9%	9.7%	9.7%	9.6%	8.5%	9.7%	9.5%	9.3%	12.3%
6	9.6%	9.5%	9.9%	9.3%	9.5%	9.7%	9.6%	9.6%	8.9%	9.8%	8.8%	9.7%	9.8%
7	15.7%	16.8%	15.2%	15.4%	14.8%	16.9%	15.9%	15.5%	15.6%	16.1%	13.6%	15.8%	17.6%
8	22.7%	20.8%	23.7%	23.3%	21.9%	23.8%	22.7%	22.9%	22.9%	23.1%	18.4%	24%	22.1%
9	18.3%	16.3%	18.9%	19.4%	19%	17.4%	18.3%	18.6%	18.7%	18.4%	19.4%	18.6%	16.1%
(10) Very satisfied	16.9%	16.7%	16.2%	18.1%	18.2%	15.2%	16.9%	17.3%	18.7%	16.2%	23.6%	15.9%	14.3%
(0-4) Bottom	**6.9%**	**8.9%**	**6.6%**	**5.4%**	**6.5%**	**7.3%**	**6.8%**	**6.6%**	**6.7%**	**6.8%**	**6.8%**	**6.7%**	**7.7%**
(5-7) Middle	**35.1%**	**37.3%**	**34.7%**	**33.8%**	**34.3%**	**36.3%**	**35.2%**	**34.6%**	**33%**	**35.5%**	**31.9%**	**34.8%**	**39.7%**
(8-10) Top	**58%**	**53.9%**	**58.7%**	**60.8%**	**59.2%**	**56.4%**	**57.9%**	**58.8%**	**60.3%**	**57.6%**	**61.4%**	**58.5%**	**52.5%**

18-34 year-olds (8.9%) are more likely to be dissatisfied with the availability of meat in general than the two other age groups, with 6.6% among 35-54 year-olds and 5.4% among 55-75 year-olds. **Urban consumers (59.2%) are more likely to be satisfied with this aspect than rural consumers** (56.4%). Low frequency consumers (39.7%) are more likely to be neutral (score 5-7) about this aspect than the high (31.9%) and medium (34.8%) frequency consumers.

Figure 94. Q13. Satisfaction with the availability of meat produced in my country - By socio-demographic characteristics

Q13. When you think of the meat that is available in your country. how satisfied are you with the following aspects?	GENDER		AGE			MEAT PURCHASED				EATING FREQUENCY			PLACE OF PURCHASE	
Availability of meat produced in my country	EU27	Male	Female	18-34	35-54	55-75	Fresh meat	Meat products	Nonpackaged	Packaged	High	Middle	Low	Supermarket and eq.	Other
Basesize	13477	6298	7179	3948	5518	4011	13222	12492	10037	11725	2623	8820	2034	12643	9126
(0) Not satisfied at all	1.8%	1.7%	1.8%	2.2%	1.5%	1.6%	1.7%	1.7%	1.7%	1.7%	1.7%	1.6%	2.6%	1.8%	1.5%
1	1.1%	1.2%	1%	1.2%	1.1%	1%	1.1%	1.1%	1.1%	1.1%	1.1%	1%	1.7%	1.1%	1%
2	2.2%	1.9%	2.5%	2.5%	2.4%	1.6%	2.2%	2.2%	2.3%	2.3%	2.1%	2%	3.1%	2.3%	2.2%
3	3.3%	3.2%	3.3%	3.4%	3.5%	2.9%	3.3%	3.1%	3.3%	3.1%	3.2%	3.3%	3.2%	3.2%	3.4%
4	4.7%	4.1%	5.2%	5.3%	4.8%	3.9%	4.7%	4.6%	4.3%	4.7%	4.2%	4.7%	4.8%	4.7%	4.6%
5	14.9%	13.4%	16.2%	15.5%	15.6%	13.3%	14.7%	14.7%	13%	15.1%	13.7%	14.9%	15.9%	15.1%	12.6%
6	12.5%	12.6%	12.3%	12%	13%	12.3%	12.5%	12.6%	11.9%	12.6%	11.3%	12.4%	13.9%	12.7%	12.2%
7	15.4%	15.9%	14.9%	16.8%	14.7%	15%	15.4%	15.4%	15.2%	15.7%	10.2%	16.2%	17.1%	15.4%	16.2%
8	18.9%	19.2%	18.7%	18.2%	19.2%	19.2%	18.9%	18.9%	19.4%	19.3%	18.6%	19.4%	17.5%	18.9%	19.7%
9	13.4%	14.4%	12.5%	11.9%	13.5%	14.8%	13.5%	13.4%	14.4%	13.2%	15.6%	13.4%	11.3%	13.3%	13.9%
(10) Very satisfied	12%	12.4%	11.6%	11%	10.7%	14.4%	12%	12.3%	13.3%	11.2%	18.3%	11.1%	9.2%	11.6%	12.7%
(0-4) Bottom	**13%**	**12.1%**	**13.8%**	**14.7%**	**13.3%**	**11%**	**13%**	**12.7%**	**12.7%**	**12.9%**	**12.3%**	**12.6%**	**15.3%**	**13.1%**	**12.7%**
(5-7) Middle	**42.7%**	**41.9%**	**43.4%**	**44.2%**	**43.3%**	**40.6%**	**42.6%**	**42.6%**	**40.1%**	**43.4%**	**35.2%**	**43.5%**	**46.8%**	**43.1%**	**41%**
(8-10) Top	**44.3%**	**45.9%**	**42.8%**	**41.1%**	**43.4%**	**48.5%**	**44.4%**	**44.7%**	**47.2%**	**43.7%**	**52.5%**	**43.9%**	**37.9%**	**43.8%**	**46.3%**

Men (45.9%) are more likely to be satisfied with the availability of meat produced in their country than women (42.8%). **The age group 55-75** (48.5%) **is more likely to be satisfied with this aspect** than the two other age groups (41.1% among 18-34 year-olds and 43.4% among 35-54 year-olds). Consumers who buy non-packaged meat are more likely to be satisfied with this aspect of the meat market: 47.2% are in this category, compared with 43.7% of consumers who bought pre-packaged meat in the past month. **High frequency consumers (52.5%) are more likely to be satisfied with this aspect** than medium (43.9%) and low (37.9%) frequency consumers. Consumers who have a butcher, market or farm as their main retailer (46.3%) are more likely to be satisfied with this aspect than consumers who mainly purchase meat in supermarket and equivalents (43.8%).

Figure 95. Q13. Satisfaction with taste - By socio-demographic characteristics

Q13. When you think of the meat that is available in your country. how satisfied are you with the following aspects?		GENDER		AGE			MEAT PURCHASED				EATING FREQUENCY			PLACE OF PURCHASE	
Taste	EU27	Male	Female	18-34	35-54	55-75	Fresh meat	Meat products	Nonpackaged	Packaged	High	Middle	Low	Supermarket and eq.	Other
Basesize	13477	6298	7179	3948	5518	4011	13222	12492	10037	11725	2623	8820	2034	12643	9126
(0) Not satisfied at all	0.9%	1%	0.8%	1.3%	0.9%	0.7%	0.9%	0.9%	0.8%	0.9%	1.1%	0.7%	1.7%	0.9%	0.8%
1	0.5%	0.7%	0.4%	0.2%	0.5%	0.9%	0.5%	0.6%	0.6%	0.6%	0.3%	0.5%	1.1%	0.5%	0.4%
2	1.3%	1.2%	1.4%	1.7%	1%	1.3%	1.3%	1.3%	1.4%	1.2%	1.3%	1.1%	2.1%	1.3%	1.2%
3	2.6%	2.7%	2.4%	2.8%	2.4%	2.5%	2.5%	2.6%	2.4%	2.6%	3.5%	2.4%	2.1%	2.6%	2.4%
4	3.6%	3.1%	4%	3.5%	3.7%	3.4%	3.6%	3.6%	3.5%	3.7%	2.6%	3.7%	4.1%	3.6%	3.3%
5	10.9%	10.3%	11.5%	11%	12%	9.5%	10.9%	10.6%	9.7%	10.9%	11.3%	10.2%	13.4%	11.1%	9.7%
6	12.6%	11.7%	13.4%	12.9%	13%	11.7%	12.6%	12.6%	11.9%	12.7%	12.3%	12.6%	12.7%	12.8%	11.8%
7	20%	19.7%	20.3%	22.3%	18.5%	19.8%	20%	20%	19.8%	20.5%	16.1%	20.9%	20.2%	20.3%	19.7%
8	22.6%	23.7%	21.4%	20.5%	23.4%	23.3%	22.6%	22.6%	22.4%	22.9%	22.1%	22.9%	21.7%	22.5%	23.6%
9	15.2%	16%	14.4%	14%	14.9%	16.7%	15.2%	15.3%	16.1%	15.1%	15.9%	15.8%	12.3%	15%	16.1%
(10) Very satisfied	9.9%	10%	9.9%	9.9%	9.7%	10.2%	10%	10.1%	11.5%	9%	13.6%	9.3%	8.7%	9.3%	11.1%
(0-4) Bottom	**8.9%**	**8.6%**	**9.1%**	**9.3%**	**8.6%**	**8.8%**	**8.8%**	**8.8%**	**8.6%**	**9%**	**8.8%**	**8.3%**	**11%**	**8.9%**	**8.1%**
(5-7) Middle	**43.5%**	**41.7%**	**45.2%**	**46.3%**	**43.5%**	**41%**	**43.5%**	**43.3%**	**41.4%**	**44.1%**	**39.7%**	**43.7%**	**46.3%**	**44.2%**	**41.2%**
(8-10) Top	**47.6%**	**49.7%**	**45.7%**	**44.4%**	**48%**	**50.2%**	**47.7%**	**47.9%**	**50%**	**46.9%**	**51.5%**	**47.9%**	**42.7%**	**46.8%**	**50.7%**

Men (49.7%) are more likely to be satisfied with the taste of the meat available in their country than women (45.7%). **18-34 year-olds** (44.4%) **are less likely to be satisfied with this aspect** than the two other age groups (35-54 with 48.0% and 55-75 with 50.2%).

Consumers who have bought non-packaged meat in the past month (50.0%) are more likely to be satisfied with taste than consumers who have bought packaged meat over the same period (46.9%).

High frequency consumers (51.5%) are more likely to be satisfied with taste than medium (47.9%) and low (42.7%) frequency consumers. Consumers who use a butcher, market or farm as their main retailer (50.7%) are more likely to be satisfied with this aspect than consumers who use a supermarket or equivalent (46.8%).

Figure 96. Q13. Satisfaction with safety in terms of bacterial contaminations - By socio-demographic characteristics

Q13. When you think of the meat that is available in your country. how satisfied are you with the following aspects?		GENDER		AGE			AREA		EATING FREQUENCY		
Safety in terms of bacterial contaminations such as salmonella or listeria	EU27	Male	Female	18-34	35-54	55-75	URBAN	RURAL	High	Middle	Low
Basesize	13477	6298	7179	3948	5518	4011	7575	5902	2623	8820	2034
(0) Not satisfied at all	2.9%	2.3%	3.5%	2.9%	2.9%	3%	2.6%	3.3%	3%	2.4%	4.7%
1	2.1%	1.9%	2.3%	2%	2.4%	1.7%	2%	2.2%	2.4%	2.1%	1.7%
2	3%	2.6%	3.4%	2.6%	3.3%	2.9%	3.2%	2.6%	3.4%	2.6%	4.1%
3	4.5%	4.6%	4.4%	5.2%	4.3%	4.3%	4.7%	4.3%	5.7%	4.6%	3.4%
4	6%	5.2%	6.7%	6.3%	5.9%	5.9%	5.5%	6.6%	5.6%	6.1%	5.8%
5	17.4%	16.4%	18.3%	16.7%	17.7%	17.6%	17.3%	17.4%	16%	16.9%	20.4%
6	11.7%	11.8%	11.6%	11.9%	11.8%	11.5%	11.5%	12%	9.9%	11.6%	14.2%
7	15%	14.8%	15.1%	16.8%	14.7%	13.7%	14.3%	15.9%	14.4%	15.4%	13.9%
8	17.5%	18.2%	16.7%	16.7%	18%	17.4%	16.9%	18.2%	15.9%	18.5%	15%
9	11.7%	13.2%	10.3%	11.3%	11.2%	12.7%	13.2%	9.8%	13.8%	11.7%	9.8%
(10) Very satisfied	8.2%	8.9%	7.6%	7.6%	7.7%	9.4%	8.7%	7.6%	9.9%	8.1%	6.9%
(0-4) Bottom	**18.5%**	**16.7%**	**20.3%**	**19%**	**18.8%**	**17.7%**	**18.1%**	**19.1%**	**20.1%**	**17.8%**	**19.7%**
(5-7) Middle	**44.1%**	**43%**	**45.1%**	**45.3%**	**44.2%**	**42.8%**	**43.2%**	**45.3%**	**40.3%**	**43.9%**	**48.5%**
(8-10) Top	**37.4%**	**40.3%**	**34.6%**	**35.6%**	**37%**	**39.5%**	**38.8%**	**35.6%**	**39.6%**	**38.3%**	**31.8%**

Men (40.3%) are more likely to be satisfied with the safety of meat in terms of bacterial contaminations than women (34.6%). **Urban consumers** (38.8%) **are also more likely to be satisfied with this aspect**

than rural consumers (35.6%). Low frequency consumers (31.8%) are less likely to be satisfied with this aspect than high (39.6%) and medium (38.3%) frequency consumers.

Men (21.3%) are more likely to be satisfied with the price of meat than women (18.2%). High frequent consumers (24.1%) are also more likely to be satisfied with the price than medium (18.8%) and low (18.7%) frequency consumers. [120]

55-75 year-olds are more likely to be satisfied with freshness with 55.1%, compared with 42% of 18-34 year-olds and 49.2% of 35-54 year-olds. 18-34 year-olds are more likely to be in the dissatisfied or neutral categories, with respectively 11.5% and 46.5% in these categories. High frequency consumers are more likely to be satisfied with freshness, with 52.9% in this category, compared with 49.2% for medium frequency and 44.4% for low frequency consumers. **Consumers who use a butcher, market or farm as their main retailer are more likely to be satisfied with freshness,** with 51.7% in this category, compared with 48.2% for consumers who use a supermarket or equivalent. [121]

Men (52.1%) are more likely to be satisfied with hygienic conditions than women (48.9%). **The age group 55-75 (54.3%) is more likely to be satisfied with this aspect** than the other two age groups (18-34 with 45.6% and 35-54 with 50.9%).[122]

55-75 year-olds (49.5%) are more likely to be satisfied with the time before reaching the use by date than the other two age groups (40.0% for 18-34 year-olds and 45.3% for 35-54 year-olds). **Urban consumers (46.7%) are also more likely to be satisfied with this aspect** than rural consumers (43.1%). Low frequency consumers (41.2%) are less likely to be satisfied with this aspect than high (46.0%) and medium (45.9%) frequency consumers.[123]

Men (37.4%) are more likely to be satisfied with the impact on health than women (34.3%).[124] 18-34 year-olds (33.0%) are more likely to be satisfied with this aspect than age groups 35-54 (36.2%) and 55-75 (37.7%). Low frequency consumers (31.6%) are less likely to be satisfied with the impact on health than the high (37.4%) and medium (36.4%) frequency consumers. [125]

Men (25.7%) are more likely to be satisfied with the availability of organic meat in their country than women (23.1%). Urban consumers (26.0%) are also more likely to be satisfied with this aspect than rural consumers (22.3%).[126]

Men (31.2%) are more likely to be satisfied with the safety in terms of residues and pollutants than women (25.7%). This is also the case for urban consumers (29.6%) in comparison with rural consumers (26.8%). Low frequency consumers (30.1%) are more likely to be dissatisfied with this aspect than high (24.7%) and medium (25.1%) frequency consumers. [127]

Women (24.7%) are more likely to be dissatisfied with the safety in terms of food borne diseases than men (18.0%). Urban consumers (36.1%) are more likely to be satisfied with this aspect than rural consumers (31.9%).[128]

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[120] Please see details in the consumer survey's technical report.
[121] Please see details in the consumer survey's technical report.
[122] Please see details in the consumer survey's technical report.
[123] Please see details in the consumer survey's technical report.
[124] Please see details in the consumer survey's technical report.
[125] Please see details in the consumer survey's technical report.
[126] Please see details in the consumer survey's technical report.
[127] Please see details in the consumer survey's technical report.
[128] Please see details in the consumer survey's technical report.

10.6.4 Aspects of consumer satisfaction to focus on

Based on replies to the satisfaction questions included in the survey, it is possible to create **a priority quadrant highlighting the aspects to focus on in order to improve consumer satisfaction with the market** (Figures 97. and 98.). Two dimensions are taken into account in this analysis:

1. Level of consumer satisfaction with each aspect, based on the percentage of consumers who pointed to 9 or 10 on a 10-point scale when asked about their satisfaction with a specific aspect

2. Importance of an aspect, i.e. the relationship between the aspect and the overall satisfaction. [129] An aspect with a higher importance contributes more to overall satisfaction (positively or negatively).

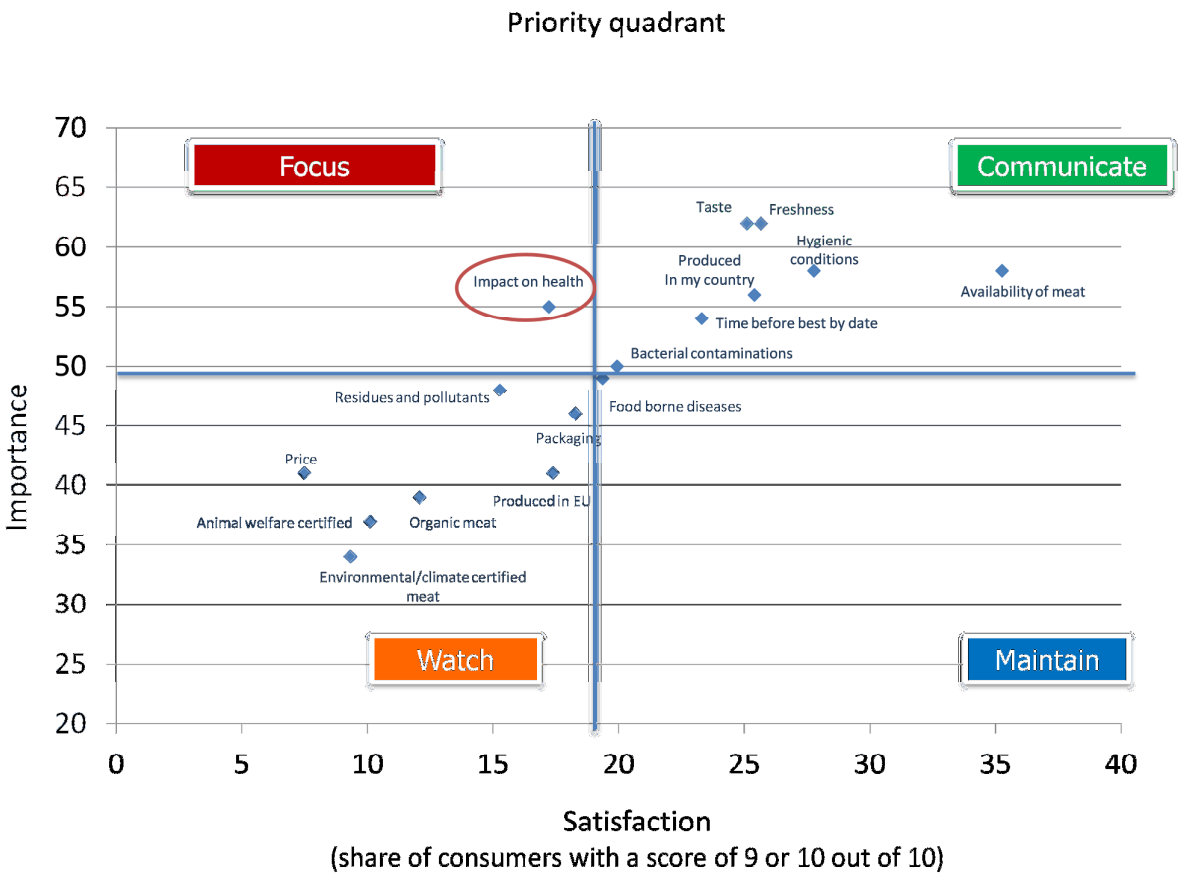
The quadrant plots satisfaction on one side and importance on the other. Four categories can be identified based on the aspect's position on the graph (figure 97.). For each category a particular range of actions could be proposed – from focusing on improving the situation, through monitoring current conditions up to highlighting the positive aspects of the current situation in communication regarding the market.

Figure 97. Priority quadrant definitions

	Low satisfaction	**High satisfaction**
High importance	**Focus** *These elements need to be improved as a priority in order to increase overall satisfaction*. **Impact on health** is the only item that clearly needs focus as its importance is higher and its satisfaction lower than average.	**Communicate** *These elements are assets and can be used in communication strategies.* The aspects that are linked to intrinsic cues of meat, namely **taste, hygiene, freshness**, etc., the **general availability of meat and meat produced in the consumer's country** belong to this category.
Low importance	**Watch** *These elements are not priorities at the moment but should be monitored.* This group contain **all specific types of meat**, such as organic, animal welfare certified and origin certified meat.	**Maintain** *These elements are not priorities as long as their scores remain stable.* None of the aspects fall into the fourth quadrant.

[129] Based on the correlation between satisfaction with one attribute and overall satisfaction

Figure 98. Priority quadrant



10.6.5 Attributes with the highest impact on satisfaction

On the basis of the consumer survey's satisfaction questions,[130] it is possible to carry out an additional type of analysis, a Key Dissatisfiers/Key Enhancers analysis (KDA-KEA). In the analysis presented above, the relationship between one attribute of the meat market and overall satisfaction is assumed to be linear, i.e. when satisfaction with one attribute increases, the overall satisfaction increases or decreases to the same extent (Figure 99.). This type of attribute is called 'desired' in the KDA-KEA analysis.

Figure 99. Linear attribute

Linear attribute

However, consumer satisfaction is more complex and some aspects can be non-linear (Figure 100.). For instance, the level of satisfaction with one attribute may not have an impact on dissatisfied consumers, but it may have an impact on satisfied consumers. This type of attribute is called 'attractive' (green line on Figure 100.). These are typically optional or luxury attributes that will not make dissatisfied consumers more satisfied, but that will delight consumers who are already satisfied.

The third type of attribute is 'expected' attributes (brown line on Figure 100.). They have a limited impact on satisfied consumers, but have an impact on dissatisfied consumers.[131]

[130] Q13. When you think of the meat that is available in your country, how satisfied are you with the following aspects?

131 Please note the distinction between types of attributes is based on the Kano theory.

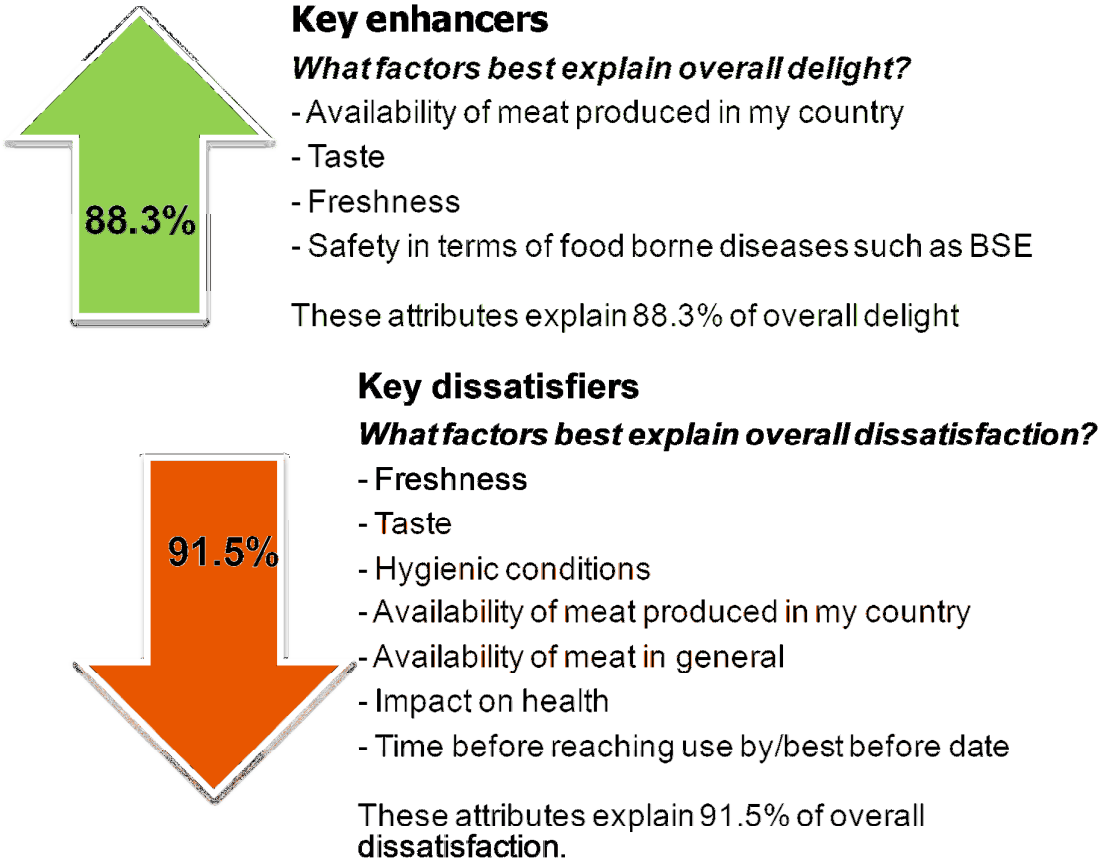
Figure 100. Non-linear attributes

Non-linear attributes

A KDA-KEA analysis takes both linear and non-linear attributes into account and identifies the attributes that contribute the most to consumer satisfaction (Key Enhancers) and dissatisfaction (Key Dissatisfiers), i.e. any change within these aspects can lead to significant changes in the level of satisfaction or dissatisfaction of consumers. The aspects taken into account were covered in question 13 of the consumer survey: 'When you think of the meat that is available in your country, how satisfied are you with the following aspects?'

Figure 101. shows the key enhancers and the key dissatisfiers based on the results of the consumer survey.

Figure 101. Key enhancers and Key dissatisfiers



The **key enhancers** identified in the analysis are the availability of meat produced in my country, taste, freshness and safety in terms of food borne diseases. Together, they explain 88.3% of overall delight. This means that these attributes have a high impact on the overall satisfaction of consumers who are highly satisfied.

Key dissatisfiers are the other side of the coin. They are the attributes that have the highest impact on dissatisfied consumers. These are freshness, taste, hygienic conditions, availability of meat produced in my country and of meat in general, impact on health and time before reaching the use by date. Together they explain 91.5% of overall dissatisfaction.

Attributes that are both key enhancers and dissatisfiers are linear or **'desired' attributes**. This means that increasing satisfaction with these attributes can directly increase overall satisfaction. This is the case of 'Availability of meat produced in my country', 'Taste' and 'Freshness.' These are key aspects of consumer satisfaction with the meat market in the EU.

Another set of attributes are **'expected' attributes**: hygienic conditions, availability of meat in general, impact on health and time before the best before date. Improving these attributes can improve the perceptions of dissatisfied consumers, but would not have an impact on satisfied consumers. Consumers just expect these aspects of the meat market to work well and are dissatisfied when it is not the case.

Finally, one of the meat market attributes was identified as an **'attractive' attribute**: safety in terms of foodborne diseases. This means that increasing satisfaction with this attribute would not have an impact on dissatisfied consumers, but it can make satisfied consumers even more satisfied.

The KDA-KEA analysis also gives an impact score to each attribute, based on their relationship with satisfaction and dissatisfaction scores[132]. Figure 102. displays the scores for the key enhancers and key dissatisfiers identified above. Availability of meat produced in my country is the key enhancer with the biggest impact on satisfaction. Freshness and taste are the key dissatisfiers with the biggest impact on dissatisfaction. The average impact scores of all other attributes are fairly low, which means that attributes not shown on these graphs only have a limited impact on satisfaction and dissatisfaction.

[132] This score is based on the Shapley value of each attribute, which is calculated by substracting the average explanatory value of all combinations that do not include the attribute from the average explanatory value of all combinations of attributes that include the attribute.

Figure 102. Importance of key enhancers in overall satisfaction

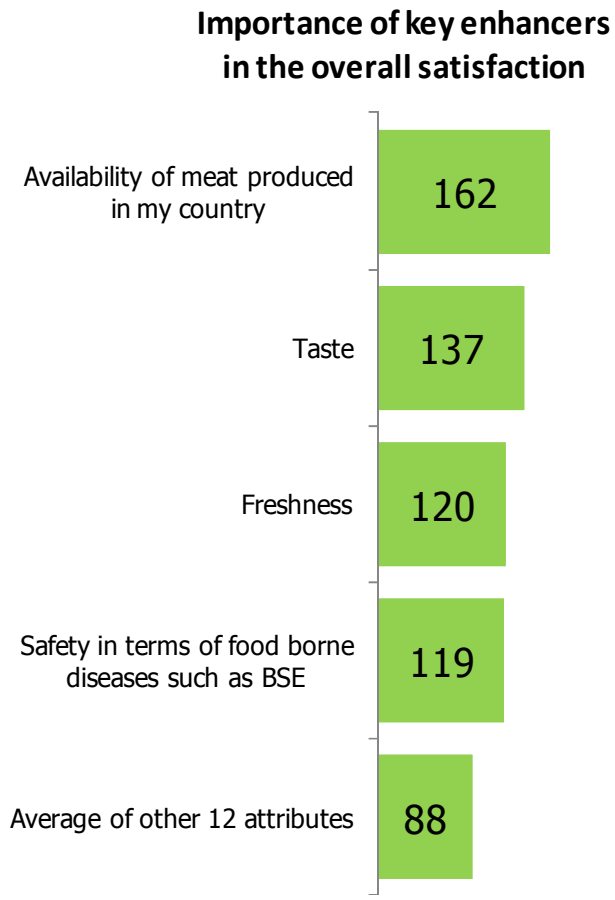
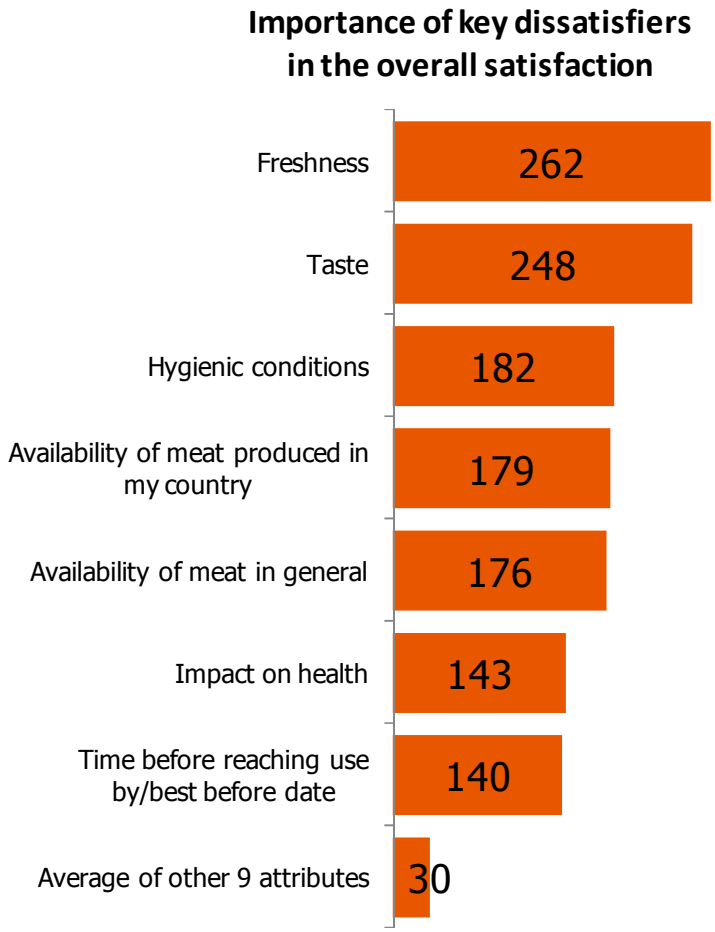


Figure 103. Importance of key dissatisfiers in overall satisfaction



In conclusion, the attributes that have the most direct impact on satisfaction are 'Availability of meat produced in my country', 'Taste' and 'Freshness.' Interestingly, taste and freshness have also been indicated as high priorities for consumers in the Maximum Difference Scaling question (presented in the Motivation chapter). This is further evidence of the importance of intrinsic cues for EU consumers.

The results of safety attributes are perhaps the most surprising. Perception of safety in terms of bacterial contamination and perception of safety in terms of residues and pollutants have very little impact on satisfaction scores. As for perception of safety in terms of food borne diseases, it is an 'attractive' attribute rather than an 'expected' attribute and only has a sizeable impact on satisfied consumers. However, perception of impact on health,,a much broader concept, has a significant impact on dissatisfaction. **This could point to the fact that consumers apprehend safety as a whole and in terms of their health rather than specific risks**. Besides, hygienic conditions and time before the best before date, which are also linked to safety in broader terms, also have a high impact on dissatisfaction.

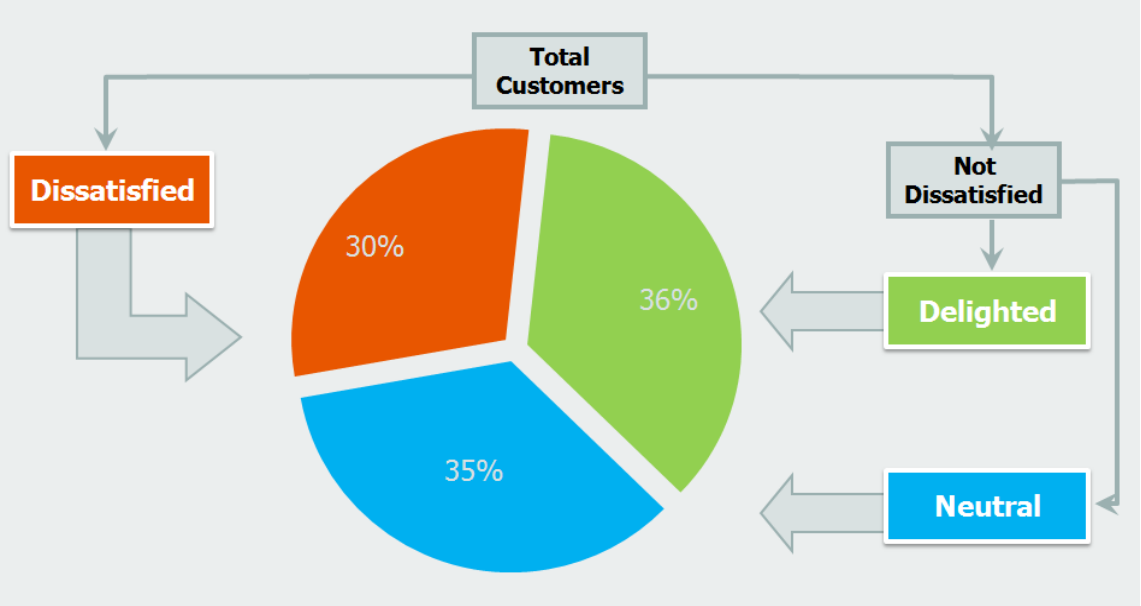
Another interesting finding is that perception of price has a small impact on overall satisfaction, although it has a fairly high importance in the Maximum Difference Scaling ranking. **This could mean that consumers take price into account at the point of purchase, but that this aspect only has a limited role in building their overall satisfaction with the meat market.**

Based on the analysis above, EU consumers can be split in three groups based on their KDA-KEA profile:

- **Dissatisfied**: consumers dissatisfied with any of the key dissatisfiers
- **Delighted**: consumers who are not dissatisfied with any of the key dissatisfiers and are highly satisfied with any of the key enhancers
- **Neutral**: all other consumers

As shown on Figure 104., under a third (30%) of consumers are considered 'Dissatisfied', while respectively 35% and 36% are considered 'Neutral' and 'Delighted.' These are fairly balanced results, which show that **less than a third of EU consumers are to some extent dissatisfied with the meat market**.

Figure 104.Consumer segments (based on Key enhancers and dissatisfiers)



IV. MARKET CONDITIONS

After looking in depth into consumer perceptions of the meat market in the previous section of the report, we will now present the market context. The first chapter addresses the regulatory framework of the meat market, with a focus on EC regulations. We will then look at the structure of the meat market in terms of meat availability and purchase channels. The third chapter includes findings on product differentiation and the final chapter focuses on consumer prices.

11 GOVERNMENT POLICY AND REGULATIONS

CHAPTER SUMMARY – GOVERNMENT POLICY AND REGULATIONS

Main findings

- The meat market is **highly regulated**, particularly in terms of food safety. The regulatory framework is complex, with various actors and levels. National regulations and the implementation of EC legislation can vary substantially across Member States.
- Existing research shows that consumer **perceptions** are **not necessarily aligned with actual regulatory levels**.
- At the EU level, two in five consumers (**41%**) agree (score 8 to 10 out of 10) that 'In my country **appropriate measures are taken in case of a food risk** related to meat.' There are significant differences between countries, from 21 % in Greece to 62 % in Finland. The same proportion of EU consumers (41%) agrees with '**I always eat safe meat**.' But again the share ranges from 9% in the Czech Republic to 66% in Romania.
- **35%** of consumers agree that **public authorities adequately ensure the safety of meat** in their country and **32%** that '**Producers and retailers adequately ensure meat safety standards**.' The same proportion agrees that **meat from the EU is safer** than from outside the EU.
- Only a minority seems affected by media coverage, **as 21%** of consumers agree (8 to 10 out of 10) that **a media story on meat that might be unsafe changed their eating habits**.

The meat market has a comprehensive regulatory framework, but consumers have biased perceptions.

Research questions

Covers research on the regulatory environment linked to the key concepts of safety, origin, sustainability and animal welfare

This chapter gives an overview of some of the current EU regulations linked to the main themes of the study, namely safety, origin, sustainability and animal welfare, followed by an analysis of consumer perceptions in these areas. The focus is on legislation that has a direct impact on consumers, such as labelling legislation, although other topics of legislation may be discussed. We also give an insight into the differences between Member States in terms of the implementation of EU legislation when based on the principle of subsidiarity. It should be noted that the selection of legislation introduced in the pages that follow does not aim to be comprehensive, but to reflect the main themes of the study from a consumer perspective.

11.1 Overview of relevant legislation

11.1.1 Safety of meat and meat products

Legislation linked to safety aims to guarantee a high level of safety for meat and meat products marketed within the EU and maximize transparency for consumers buying meat and meat products.

Regulation (EC) No 178/2002, also known as **the General Food Law Regulation** of the European Parliament and of the Council of 28 January 2002, lays down the general principles and requirements of food law and food trade, establishes the European Food Safety Authority, and provides procedures in matters of food safety. It contains the basic principles regarding food law in all Member States of the European Community. In addition, the Regulation is important for all companies exporting food from third countries into the European Union. The Regulation is directly applicable in all Member States. Four amendments and corrections have been made successively, and these have been incorporated in the original text (EC, 2011d).

Labelling and traceability

Regulation (EU) No 1169/2011, which sets out new rules for food labelling was adopted during the study, but will only apply from 2014. It considerably changes the existing legislation on food labelling, introducing mandatory origin labelling of fresh meat from pigs, sheep, goats and poultry and nutrition information on processed foods. The aim is to make food labels clearer and more relevant to consumers. The new law combines **Directive 2000/13/EC** on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs and **Directive 90/496/EEC** on nutrition labelling for foodstuffs.

Regulation (EC) No 1760/2000 establishes a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing. The Regulation followed on the BSE crisis in the 1990's. The latest proposal for a **Regulation of the European Parliament and of the Council amending Regulation (EC) No 1760/2000** concerns electronic identification of bovine animals and deleting the provisions on voluntary beef labelling. **Regulation (EC) No 1825/2000** lays down detailed rules for the application of **Regulation (EC) No 1760/2000** as regards the labelling of beef and beef products.

Regulation (EC) No 21/2004 establishes a system for the identification and registration of ovine and caprine animals. Community rules on the identification of sheep and goats were mainly reinforced after the experience gained with foot-and-mouth disease in 2001. The system is based on the principle of individual traceability.

Hygiene

In April 2004, a set of Hygiene Regulations consolidated and simplified 17 outdated and often overlapping EU directives. This **single hygiene policy** introduced the following principles:

- primary responsibility for food safety rests with the food business operator;
- food safety ensured throughout the food chain, starting with primary production;
- general implementation of procedures based on the HACCP principles;
- application of basic common hygiene requirements, possibly further specified for certain categories of food;
- registration or approval for certain food establishments;
- development of guides to good practice for hygiene or for the application of HACCP principles as a valuable instrument to aid food business operators at all levels of the food chain to comply with the new rules
- flexibility provided for food produced in remote areas (high mountains, remote island) and for traditional production and methods.

The key acts linked to the policy are the following:

- Regulation (EC) 852/2004 on the hygiene of foodstuffs;
- Regulation (EC) 853/2004 hygiene rules for food of animal origin;
- Regulation (EC) 854/2004 official controls on products of animal origin intended for human consumption133.
- Regulation (EC) 882/2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

A review of the EU legislation on official controls, including Regulation 882/2004, is in progress. A regulatory proposal on this topic should be presented in July 2012 and is likely to change this aspect of the regulatory framework (EC, 2012b).

In 2008 the Commission consulted the national authorities regarding national measures within the scope of the EC hygiene regulations and their notifications. Each authority was asked whether national measures have been adopted within the scope of EC hygiene regulations and whether these measures were notified to the

Commission. the scope covered topics such as rules on direct supply by the producer, emergency slaughter and pilot projects on meat hygiene controls. The replies obtained from 19 Member States give an indication on the adoption of national measures regarding the areas specified at the beginning of 2009.

12 countries adopted national rules on direct supply by the producer in the framework of Regulation EC 852/2004. Four of these notified the Commission of these rules. 14 countries adopted such rules in the framework of Regulation 853/2004. Four of these notified the Commission. All countries who answered this question allow emergency slaughter in the slaughterhouse, while 14 countries allow emergency slaughter on the farm. Only two countries say they allow pilot projects on meat hygiene controls.

Genetically modified feed

Regulation (EC) 1829/2003 of the European Parliament and of the Council on genetically modified food and feed established regarding feed criteria for evaluating the potential risks, harmonised procedures for risk assessment and authorisation as well as provisions for the labelling of feed consisting of and containing GMOs and produced from GMOs.

Commission Regulation (EC) No 641/2004 details the rules for the implementation of Regulation (EC) No 1829/2003 of the European Parliament and of the Council as regards the application for the authorisation of new genetically modified food and feed, the notification of existing products and adventitious or technically unavoidable presence of genetically modified material which has benefited from a favourable risk evaluation.

11.1.2 Origin of meat

Country of origin

Country of origin labelling is already compulsory for foods such as beef, honey, olive oil and fresh fruit and vegetables. Regulation (EU) No 1169/2011 on providing food information to consumers will extend those rules to all meat, poultry and dairy products. The possibility of a mandatory label stating the country of origin for meat, poultry and fish when used as an ingredient in processed food is being examined.

Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products was introduced in the wake of the crisis over bovine spongiform encephalopathy (BSE) or "mad cow disease". The chief aim is to increase consumer confidence in beef and veal. Operators or organisations marketing Community or imported beef are obliged to label the beef at all stages of the marketing process. When the product is not pre-wrapped, they must supply relevant information in written and visible form to the consumer at the point of sale. The following information must be shown on the label:

- the reference number or code establishing the link between the meat and the animal, or group of animals, from which the meat was derived;
- "Slaughtered in" (country where slaughter took place and licence number of the slaughterhouse);
- "Cutting/cut in" (country where cutting was performed and licence number of the cutting plant).
- the country where the animals were born;
- the country where the animals were fattened/bred
- and the country where the animals were slaughtered.

EU 'quality' logos

Consumers, retailers and farmers rely increasingly on logos and certification schemes to help them identify and distinguish food produce. A wide range of quality certification schemes currently operate in Europe and their number continues to increase (EC, 2005d).

The exceptional nature and quality of some products derives from their place of production and the methods used to make them. Consumers and the food trade are increasingly interested in the geographical origin of food and other characteristics. The EU recognises this and has developed three 'quality logos' (Figure 105.).

Figure 105. Quality logos

A product bearing **the Protected Designation of Origin (PDO)** logo must have proven characteristics which can result solely from the terrain and abilities of producers in the region of production with which it is associated.

A product bearing **the Protected Geographical Indication (PGI)** logo has a specific characteristic or reputation associating it with a given area, and at least one stage in the production process is carried out in that area.

The Traditional Speciality Guaranteed (TSG) logo is used for products with distinctive features and which either have traditional ingredients or are made using traditional methods.

The advantages of protecting these quality indications are that they:

- Offer guarantees for consumers about origin and methods of production;
- Deliver effective marketing messages about high value-added products;
- Underpin rural businesses producing quality products by protecting the label against fraudulent imitation.

By 2011, the EU had registered 1,000 geographical indications, designations of origin and traditional speciality guaranteed products. In addition, by 2007, about 2,000 geographical indications for wines and spirits originating in the EU and in third countries are protected on the EU market (EC, 2012c).

11.1.3 Sustainability

Sustainability includes ecological, economic, and social dimensions. From this perspective, those food production chains are preferable that create less environmental impacts while being socially justifiable and economically viable (Langhelle, 2000; WCED, 1987). Sustainable agriculture integrates three main goals: environmental health, economic profitability, and social and economic equity. Sustainable livestock husbandry includes animal welfare as well.

Environment-related legislation

The key principles to environmentally viable production of meat are defined in **the Common Agricultural Policy CAP** (EC, Xc). Agriculture has intensified and intensification in turn has increased pressure on the environment. Integrating environmental concerns into the CAP aims to head off the risks of environmental degradation and enhancing the sustainability of agro-ecosystems, through the so-called cross-compliance policy. The CAP has identified three priority areas for action to protect and enhance the EU's rural heritage:

- Biodiversity and the preservation and development of 'natural' farming and forestry systems, and traditional agricultural landscapes;
- water management and use;
- dealing with climate change.

The desired relationship between agriculture and the environment can be captured by the term "sustainable agriculture", which involves for example the development of agri-environment measures and organic farming. This is achieved by:

- targeting aid at rural development measures promoting environmentally sustainable farming practices, like agri-environment schemes;
- enhancing compliance with environmental laws by sanctioning the non-respect for these laws by farmers through a reduction in support payments from the CAP.

The CAP is due to be reformed by 2013 as part of the 'Europe 2020' strategy. Following a public debate on the reform, several legal proposals were presented in October 2011. They include changes to direct payments, market management tools and rural development policies and the introduction of new mechanisms to deal with price and income volatility (EC, 2011j).

Other legislation aimed at promoting sustainable agriculture are, among others:

- Commission Communication of 15 May 2001 'A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development'
- Council Regulation (EC) No 870/2004 of 24 April 2004 establishing a Community programme on the conservation, characterisation, collection and utilisation of genetic resources in agriculture, and repealing Regulation (EC) No 1467/94
- Commission Communication COM(2001) 162 final of 27 March 2001 to the Council and the European Parliament: Biodiversity Action Plan for Agriculture (Volume III).
- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

- Commission Communication COM(2006) 231 final of 22 September 2006 entitled "Thematic strategy for soil protection"

- Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003

- Regulation (EC) No 614/2007 of the European Parliament and of the Council of 23 May 2007 concerning the Financial Instrument for the Environment (LIFE+).

- Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the Sixth Environment Action Programme of the European Community, "Environment 2010: Our future, Our choice"

EU organic production legislation

Council Regulation (EC) No 834/2007 on organic production and labelling of organic products and repealing **Regulation (EEC) No 2092/91** concerns the production, control and labelling of organic products and applied since 1 January 2009 equally in all EU Member States. This regulation establishes the legal framework for all levels of production, distribution, control and labelling of organic products which may be offered and traded in the EU. It aims to set a new course for the continued development of organic farming through sustainable cultivation systems and a variety of high-quality products. In this process, even greater emphasis is to be placed in future on environmental protection, biodiversity and high standards of animal protection. Organic production must respect natural systems and cycles. Sustainable production should be achieved insofar as possible with the help of biological and mechanical production processes, through land-related production and without the use genetically modified organisms (GMO).

Foods may only be marked as ‘organic’ if at least 95% of their agricultural ingredients are organic. Organic ingredients in non-organic food may be listed as organic in the list of ingredients, as long as this food has been produced in accordance with the organic legislation. In order to ensure better transparency, the code number of the control body must be indicated.

The use of genetically modified organisms (GMO) and of products manufactured from GMOs is prohibited in organic production. Products containing GMOs may not be labelled as organic unless the ingredients containing GMOs entered the products unintentionally and the GMO proportion in the ingredient is less than 0.9%.

In addition to a new Council Regulation, two new Commission Regulations were adopted in 2008 regulating organic production, the import and distribution of organic products as well as their labelling.

- Commission Regulation (EC) No. 889/2008 of 5 September 2008 with detailed rules on production, labelling and control.

- Commission Regulation (EC) No. 1235/2008 of 8 December 2008 with detailed rules concerning import of organic products from third countries.

The placement of the **new EU organic logo** has been mandatory since 1 July 2010 for pre-packaged food. The EU organic farming logo offers consumers' confidence about the origins and qualities of their food and drink and its presence on any product ensures compliance with the EU organic farming Regulation. The EU organic logo is obligatory for all organic pre-packaged food products within the EU. It is also possible to use the logo on a voluntary basis for non pre-packaged organic goods produced within the EU or any organic products imported from third countries.

The new organic logo (Figure 106.) is the second certifying symbol for organic products in the EU. The first one (Figure 107.) was launched at the end of the 1990s and was applied on a voluntary basis. It is obsolete from 1 July 2010 although it may still appear on some products as they clear through the supply chain.

Figure 106. Pre-2010 organic logo

Figure 107. Current organic logo

11.1.4 Animal welfare

The policy objectives of animal welfare in the EU are set in the Treaty of Lisbon (2008):

> *'In formulating and implementing the Union's agriculture, fisheries, transport, internal market, research and technological development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage.'*

This puts animal welfare on equal footing with other key principles mentioned in the same title i.e. promote gender equality, guarantee social protection, protect human health, combat discrimination, promote sustainable development, ensure consumer protection, protect personal data. It needs, however, to be noted that the EU operates under the principles of conferred competences and subsidiarity. So competences not conferred upon the EU in the Treaties remain with the Member States and under the principle of subsidiary, in areas that do not fall within its exclusive competence, the EU shall act only if and in so far as the objectives cannot be sufficiently achieved by the Member States (Article 1, 4 and 5 of the EU Treaty).

The first Community legislation on farm animal welfare dates back to 1974. Today the EU legislation for farm animals hinges on 5 freedoms:

- Freedom from discomfort;

- Freedom from hunger and thirst;
- Freedom from fear and distress;
- Freedom from pain, injury and disease;
- Freedom to express natural behaviour.

The most important EU legislations regarding animal welfare are:

Council Directive 98/58/EC on the protection of animals kept for farming purposes provides general rules for the protection of animals of all species kept for the production of food, wool, skin or fur or for other farming purposes, including fish, reptiles or amphibians. Community legislation concerning the welfare conditions of farm animals lays down minimum standards. National governments may adopt more stringent rules provided they are compatible with the provisions of the Treaty.

Regulation EC 1/2005 defines the responsibilities of all actors in the transport chain to effectively enforce the rules on animal transport. It offers more efficient monitoring tools e.g. checks on vehicles via satellite as of 2007, and stricter rules for journeys exceeding 8 hours, including a substantial upgrading of vehicle standards.

Council Regulation (EC) No 1099/2009 on the protection of animals at the time of killing provides for practical measures to ensure animals are humanely treated just prior to and at slaughter. To simplify existing legislation and bring it into line with food hygiene regulations, the proposal integrates welfare considerations into the design of slaughterhouses and requires the regular monitoring of the efficiency of stunning techniques.

The Animal Welfare Strategy 2012-2015 was adopted by the Commission in January 2012. One of its aims is the adoption of a general animal welfare legislative framework. Different initiatives will be implemented over the next three years and may change the regulatory framework of animal welfare in the meat market to a great extent (EC, 2012e).

Labelling

Currently there is no harmonized system of labelling products produced with higher animal welfare standards than those required. The European Commission wants to promote animal related products elaborated under high welfare standards. One of the main areas of action described in the Community Action Plan for Animal Welfare 2006-2010 is to involve the general public and enable consumers to make more informed purchasing decisions.

The European Commission has adopted a report in which it outlines a series of options for animal welfare labelling (EC, 2009h). The overall goal of policy in this area is to make it easier for consumers to identify and choose welfare-friendly products, and thereby give an economic incentive to producers to improve the welfare of animals. The report also presents options for the possible establishment of a European Network of Reference Centres for the protection and welfare of animals.

11.2 Regulations related to production methods

The desk research focuses on consumers' understanding of existing EU level legislation and the role of public authorities in the meat market. The recurring themes that emerged in the course of the analysis are: consumers perceptions of safety legislation and consumer understanding linked to various production methods are central themes, and both appear to be rather based on trust and beliefs than on knowledge. Consequently, information is seen as key for addressing any issue among consumers in the area of government policies and legislation. Increasing the volume of information through various channels such as communication campaigns and labelling is a strategy often used by public authorities to improve consumer perceptions.

11.2.1 Perceptions regarding production methods

Besides consumer understanding of the content and application of safety legislation, the desk research revealed a number of uncertainties and misconceptions linked to the legislation regarding various production methods and their certification and labelling, such as sustainability, animal welfare and health-related topics.

Firstly, **EU consumers have high expectations of public authorities when it comes to regulating and informing citizens about production methods**. In the area of animal welfare, EU consumers imagine different roles for different actors, with farmers being mainly responsible for their livestock, assisted by veterinary professionals and regulated by governments, while civil society puts pressure on governments (Special Eurobarometer Series 270, 2007). Furthermore, consumers increasingly expect governments to play a major role in tackling environmental issues, such as climate change. The food sector has a relatively high level of carbon emissions compared to revenue and is particularly exposed to related costs and future regulation risks (The Consumer Goods Forum, Capgemini, HP & Microsoft, 2011).

Besides, consumers trust more public organic certifications than private ones. Governments can therefore play an important role by creating standard definitions, ensuring consistency and prosecuting violators. (OECD, 2008). In this respect, the practice of gold-plating, while sometimes providing higher standards, also means that varying levels of implementation of legislation may be found across the EU. The example of animal welfare regulations on transport (Figure 108.) shows that even in highly regulated areas, small differences exist between countries.

Nutrition plays an increasingly important role in the debate about food and health, and with it, nutrition labelling. New EU rules on compulsory nutrition labelling may indeed lead to a change in consumer demand (Verbeke, 2010). However, consumers often receive **mixed messages about the impact on health**. National stakeholders mention that consumers have misconceptions about health and meat. Negative media coverage may lead consumers to think meat is unhealthy in general or that all food additives may be dangerous.

In terms of sustainability, there is some evidence that **sustainability attributes are not readily identifiable to consumers,** which is an obstacle to purchase. Information may be insufficient, confusing or may include terms that consumers may not understand fully, such as 'carbon footprint'. Another issue is consumer skepticism of 'green claims' from the industry or of government advice. (UK Government Office for Science, 2011). Some national stakeholders also mention that many consumers have a limited knowledge of the meat production chain, 'from farm to fork.' This may prevent them from understanding its impact on the environment.

Figure 108. Case-study - Animal welfare during transport in the EU

A range of EC regulations apply to the EU meat market and many aspects have been harmonized. However, national provisions may vary slightly due to a range of circumstances. One of these differences is the practice of providing more details as to the implementation of the rules.

As an example, we will focus on the Council Regulation 1/2005 on the protection of animals during transport in a handful of countries. Regulations come into force directly in all Member States and do not need to be transposed into national law (unlike directives). Still, Member States may go above and beyond the regulation's requirements or detail its implementation, which may result in variations across the EU.

Germany

The Council Regulation 1/2005 was implemented by the Ordinance on the protection of animals during transport from the 11th of February 2009. Apart from detailing the regulation requirements, it includes additional rules, for example more detailed guidelines on the minimum space needed for animals of varying weights or rules on the transport of newborn chickens (Ordinance BGBl. I S. 375, Germany, 2009).

Spain

In Spain, Royal Decree 751/2006, from the 16th of June, about the authorization and registration of carriers and transportation of animals and the establishment of the Spanish Committee for welfare and protection of farm animals implemented the Council Regulation 1/2005. This Royal Decree details specific aspects of the Council Regulation as it establishes a computer register of carriers, containers and live animal transportation means. It also details the content of the training courses on animal welfare during transport mentioned in the regulation and creates a Spanish Committee for the welfare and protection of farm animals (Royal Decree 751/2006, 2006).

England

The Welfare of Animals Order (Transport) (England) 2006 implements Council Regulation 1/2005. It puts in place specific derogations and precisions on a number of points, such as temperature requirements or continuous access to water. It also defines the role and powers of inspectors in charge of controlling the implementation of the regulation (Order 2006/3260, UK, 2006).

France

Existing regulations on animal welfare during transport (such as specific articles of the Code rural) were kept in place and amended to implement specific aspects of the regulation in French law.

As a result, the harmonised EU animal welfare rules are applied, but their implementation can vary from one Member State to the other.

11.2.2 Case-studies on production methods

The case-studies on GM-free labelling, animal welfare and organic regulations show that consumer perceptions are not always aligned with the level of EU and national legislation on a given topic.

GM-free labelling

Figure 109. presents the s**tate of national labelling legislation on food products without genetically modified (GM) ingredients**, next to **results of the consumer survey linked to GM feed for selected countries**. The two aspects match for Austria and Germany, where extensive GM-free labelling regulations exist and consumer scores are above average in terms of the importance of GM-free feed in the purchase decision-making and the proportion of consumers who look for this information. Results are also aligned in Spain and Poland where consumer scores are below or close to the average and no GM-free labelling regulations are currently effective. However, results are less consistent in France and Finland. France has GM-free labelling regulations and consumers are more likely than average to look for GM-free feed information, but GM-free feed has a below average importance score. Finland has the same profile in terms of consumer scores, but does not currently have GM-free labelling regulations.

Figure 109. Case-study: GM-free labelling regulation

COUNTRY	GM-free labelling regulation	GM-free labelling requirements	Importance of 'No GM feed' in decision-making (Q15)	Proportion of consumers who look for this information when purchasing meat (Q12)
AT	Yes	Extensive criteria based on the definition set in Regulation (EC) No 1829/2003 and completed by farm level controls and GM-free feeding periods for livestock	Above average (9.9%)	Above average (33%)
DE	Yes	Strict criteria in place for over two decades which were relaxed slightly in 2008 Definition based on Regulation (EC) No 1829/2003 but going beyond: products with a GM content that is technically avoidable are also excluded from the scheme GM-free logo introduced in 2009 and enforced by monitoring at retail level	Above average (8.5%)	Above average (23%)
ES	No		Average (6.9%)	Below average (15%)
FI	No (but coming soon)	Currently allowed but an upcoming regulation is likely to include requirements such as complete traceability, a threshold for unavoidable GM presence and a GM comparator and based on the principle that consumers should not be misled by labelling	Below average (6%)	Above average (24%)
FR	Yes	A 2008 law sets the regulatory framework for GM-free supply chains and regulations exist on the existence of non-GM food, co-existence, transport and information about GM cultivation 'GM-free' is defined in a 2004 note as follows: vegetable products and livestock products fed on feed with GM content below detection levels (0.01%) This is going beyond the definition of Regulation (EC) No 1829/2003	Below average (5.5%)	Above average (27%)
PL	Yes (but suspended)	A 2006 law only allows GM foodstuff as animal feed, i.e. requires all human food to be GM-free, but it has been suspended until 2013	Below average (6.3%)	Below average (7%)

Based on consumer survey data and Agra CEAS Consulting, 2010.

Animal welfare

Figure 110. presents results of the consumer survey linked to animal welfare, next to an assessment of **national regulations on animal welfare** and the extent to which countries used 'gold-plating', which is the opportunity to go beyond and above EC regulations. In three countries, animal welfare regulations go beyond EC regulations: Germany, Denmark and the UK. Other countries have very little or no animal welfare-related gold-plating and the results of the consumer survey are below or close to the average: Belgium, Spain, Hungary and Poland.

The picture is more contrasted in the remaining countries. France, Italy and Romania have several scores above average but limited gold-plating, while the Netherlands and Sweden have more extensive gold-plating but consumer have scores below or close to the average.

Figure 110. Case-study: animal welfare regulations

COUNTRY	Farm animal regulation – Gold-plating	Farm animal regulation – Extent of gold plating	Awareness (Q2)	Purchase (Q3)	Would like to buy more often (Q10)	Proportion of consumers who look for this information when purchasing meat (Q12)	8-10 satisfaction with availability of this type of meat (Q13)	Importance of 'Animal welfare certified' in decision-making (Q15)
BE	Yes	Slightly beyond EU regulation for pigs	Average (46%)	Average (21%)	Average (40%)	Below average (18%)	Below average (16%)	Below average (3.7%)
DE	Yes	Beyond EU legislation for farm animals, calves, pigs, laying hens and slaughter	Above average (57%)	Average (25%)	Above average (57%)	Above average (28%)	Above average (26%)	Average (4.9%)
DK	Yes	Beyond for calves, pigs and laying hens	Above average (50%)	Below average (18%)	Above average (51%)	Above average (23%)	Below average (16%)	Below average (4.2%)
ES	No		Below average (33%)	Below average (14%)	Above average (50%)	Average (22%)	Below average (17%)	Average (4.8%)
FR	Yes	Slightly beyond EU regulations for slaughter	Average (45%)	Above average (27%)	Above average (47%)	Above average (26%)	Below average (16%)	Below average (4.2%)
HU	No		Below average (29%)	Below average (12%)	Average (40%)	Average (21%)	Below average (13%)	Below average (3.2%)
IT	No		Above average (49%)	Average (24%)	Below average (17%)	Below average (20%)	Above average (25%)	Above average (8%)
NL	Yes	Beyond EU regulations for calves and pigs, slightly beyond for laying hens and slaughter	Above average (51%)	Average (23%)	Average (39%)	Below average (19%)	Below average (14%)	Below average (4.3%)
PL	Yes	Slightly beyond EU regulations for calves and slaughter	Below average (22%)	Below average (11%)	Below average (24%)	Below average (8%)	Below average (12%)	Below average (2.8%)
RO	No		Below average (37%)	Average (24%)	Below average (25%)	Below average (16%)	Above average (27%)	Above average (5.2%)
SE	Yes	Beyond EU regulations for farm animals, calves, pigs, laying hens, transport and slaughter, slightly beyond for broilers	Average (47%)	Average (23%)	Above average (46%)	Average (21%)	Average (15%)	Average (4.7%)
UK	Yes	Beyond EU regulations for farm animals, calves and pigs	Above average (52%)	Above average (30%)	Above average (47%)	Above average (26%)	Above average (28%)	Average (4.8%)

Based on consumer survey data and the following sources: Econwelfare, in GHK (2010); Ordinance BGBl. I S. 375, Germany (2009); Royal Decree 751/2006, Spain (2006); Order 2006/3260, UK (2006).

Organic production

Figure 111. presents the key aspects of the **most recent organic regulations** in selected countries, next to consumer survey results relating to organic meat. Only regulations addressing organic production in general have been included and regulations with a narrower scope may have been implemented more recently.

The actual content of national regulations is fairly similar. However, **countries that have updated their organic regulations more recently tend to have above average consumer scores**. This is the case of Finland, Germany and the UK. In contrast, countries with slightly older regulations, such as Bulgaria, the Czech Republic and Italy tend to have below average or average consumer scores. Poland is the exception as consumer scores are mostly below average but the most recent organic regulation was adopted in 2009.

Differences between consumer perceptions and the level of legislation could be linked to a limited understanding of legislation, but also to trust. Indeed, one of the barriers to the purchase of meat with specific production methods is a lack of trust in the information provided by public authorities or the food industry (Torjusen, Sangstad, O'Dohorty, Unni & Unni, 2004).

Figure 111. Case-study: organic regulations

COUNTRY	Most recent national organic legislation	Year	Key topics	Awareness – Organic meat (Q2)	Purchase – Organic meat (Q3)	Would like to buy organic meat more often (Q10)	Proportion of consumers who look for organic information when purchasing meat (Q12)	8-10 satisfaction with 'Availability of organic meat' (Q13)	Importance of 'Organic meat' in decision-making (Q15)
BG	Ordinance No. 35 of 30 August 2001 on organic production of livestock, livestock products and foodstuffs of animal origin	2001	Principles of organic production, imports, inspections	Below average (18%)	Below average (5%)	Below average (15%)	Below average (6%)	Below average (8%)	Below average (1.6%)
CZ	Act No 242/200 Coll. on organic farming)	2001	Framework for organic production, imports, labelling, inspections and sanctions against breaches of the legislation	Average (49%)	Below average (8%)	Above average (46%)	Average (19%)	Below average (15%)	Below average (1.3%)
DE	Organic Farming Act (ÖLG) of 15 July 2002, updated in 2009	2009	Notifications, inspection bodies, role of different organisations involved, catering inspections, and sanctions	Above average (67%)	Above average (24%)	Above average (59%)	Above average (27%)	Above average (37%)	Above average (4.9%)
IT	Decreto legislativo 220/95	1995	Roles of national and regional organisations, inspections and controls, and imports	Below average (39%)	Below average (7%)	Below average (15%)	Below average (7%)	Average (24%)	Above average (3.6%)
FI	Statute No 336/2005 of the Finnish Ministry of Agriculture and Forestry	2005	Roles of official parties responsible for controls, control system of organic products	Above average (75%)	Above average (27%)	Above average (52%)	Above average (28%)	Average (24%)	Average (3.1%)
PL	New Act on organic farming of 25 June 2009	2009	Roles of different organisations in the certification system, notifications and labelling	Below average (24%)	Below average (7%)	Below average (27%)	Below average (7%)	Below average (14%)	Average (3.5%)
UK	Organic products regulation 2009	2009	Roles, imports, fees, sanctions	Above average (64%)	Above average (22%)	Above average (44%)	Average (20%)	Above average (31%)	Below average (2.3%)

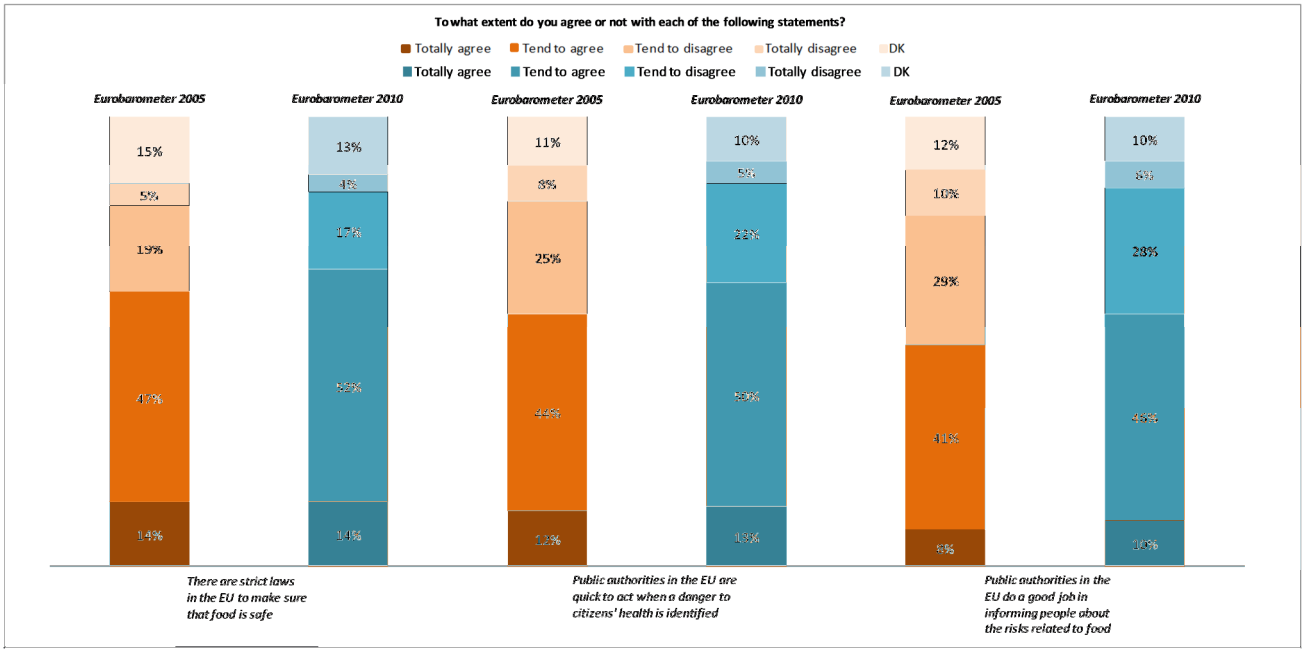
Based on consumer survey data and the following sources: Czech Ministry of Agriculture (2008); ,Metera (2005), USDA Foreign Agricultural Service (2011) , Organic Products Regulations 2009/842, UK (2009); Research Institute of Organic Agriculture FIBL (2011); EC (2000); Statute No 336/2005, Finland (2005).

11.3 Consumer perceptions regarding rules on food safety

11.3.1 Awareness of regulations

Existing research shows that a **majority of EU consumers are aware of EU-level food safety legislation and policies** (Figure **Error! Reference source not found.**). In summer 2010, 66% agreed that there are strict laws in the EU to make sure that food is safe (Special Eurobarometer 354, 2010). The majority of EU consumers think that public authorities in the EU are quick to act when a danger to citizens' health is identified (63% agree, up from 56% in 2005) and that public authorities in the EU do a good job in informing people about the risks related to food (56%, up from 49% in 2005). However, these numbers also mean that **between 30 and 40% of consumers are still not aware of regulations and do not see public authorities' actions in a positive light**.

Figure 112. Perceptions on EU safety laws, public authorities actions and information activities



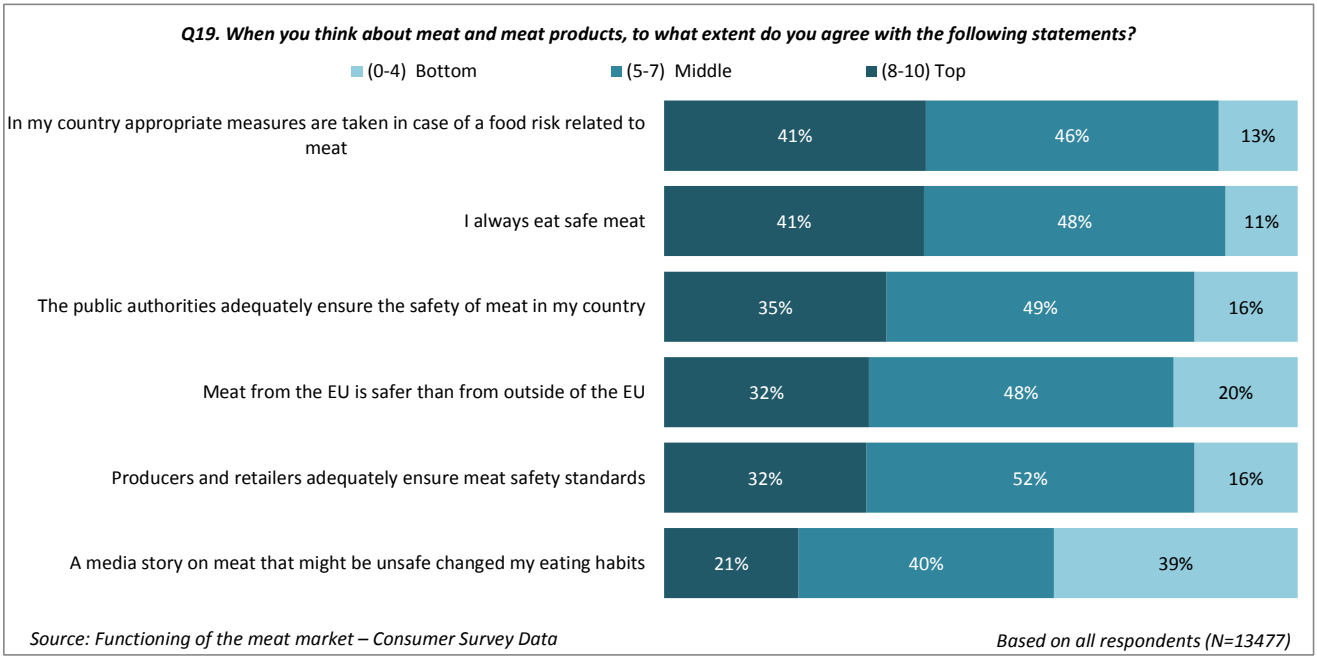
(Special Eurobarometer 354, 2010)

11.3.2 Perceptions of food safety

As part of the consumer survey, respondents were asked to assess their perception of the safety of meat by indicating their agreement with several statements (Figure 113.).

Two in five consumers (41%) agree (score 8 to 10 out of 10) with 'In my country appropriate measures are taken in case of a food risk related to meat' and with 'I always eat safe meat.'
Around one third of consumers agrees with three other statements: 'The public authorities adequately ensure the safety of meat in my country' (35% with a score of 8 to 10), 'Meat from the EU is safer than from outside the EU' and 'Producers and retailers adequately ensure meat safety standards' (both 32%). 21% of consumers agree (8 to 10 out of 10) with 'A media story on meat that might be unsafe changed my eating habits.'

Figure 113. Q19. Agreement with safety statements



11.3.3 Perceptions of food safety by socio-demographic category

Significant differences between socio-demographic categories will be described below.

Compared to female consumers (33.1%), male consumers are more likely to agree that '**Public authorities adequately ensure the safety of meat in my country'** (37.2%). 55-75 year-olds are more likely to agree with this statement than other age groups, with 38%, compared with 32.6% for 18-34 year-olds and 34.6% for 35-54 year-olds. Urban consumers (37.4%) are more likely to agree than rural consumers (32%). High frequency consumers are less likely than other groups to fall in the middle category (score 5-7) with 43.1%, compared with 49.6% for medium frequency and 50.0% for low frequency consumers.

55-75 year-olds are less likely than other age groups to disagree with the statement '**Producers and retailers adequately ensure meat safety standards**,' with 13.2% giving scores between 0 and 4, compared with 17.3% among 35-54 year-olds and 18.1% among 18-34 year-olds. Urban consumers (33.5%) are more likely to agree with this statement than rural consumers (29.7%). Low frequency consumers (28.3%) are less likely to agree than medium (32.5%) and high frequency consumers (33.2%).

Men (33.7% with a score of 8 to 10) are more likely to agree with the statement '**Meat from the EU is safer than from outside of the EU**' than women (30.9%). 18-34 year-olds are less likely to disagree (score 0-4) than other age groups with 16.9%, compared with 20.3% for 35-54 year-olds and 21.1% for 55-75 year-olds. Low frequency consumers (29.0%) are less likely to agree with the statement than high (33.4%) and medium (32.9%) frequency consumers.

The age group 55-75 (45.3%) is more likely to agree (score 8-10) with the statement '**I always eat safe meat**' than the other two age groups (18-34 with 38.4% and 35-54 with 39.5%). Low frequency consumers (36.8%) are less likely to agree than the high (44.0%) and medium (41.3%) frequency consumers. Consumers who use butchers, markets or farms as their main retailer (43.1%) are more likely to agree with the statement than consumers who use a supermarket or equivalent as their main retailer (40.4%).

Men (43.4%) are more likely to agree (score 8-10) with the statement '**In my country appropriate measures are taken in case of a food risk related to meat**' than women (39.4%). The age group 55-75 (45.9%) is more likely to than the other age groups (18-34 with 37.9% and 35-54 with 40.1%). Urban consumers (44.0%) are more likely to agree than rural consumers (37.7%). High frequency consumers (45.3%) are more likely to agree than medium (41.3%) and low (37.3%) frequency consumers.

Women (23.1%) are more likely to agree that '**A media story on meat that might be unsafe changed my eating habits**' than men (19.2%). 55-75 year-olds are more likely to disagree with this statement, with 42.3% giving a 0-4 score, compared with 37.7% for 35-54 year-olds and 35.2% for 18-34 year-olds. Medium frequency consumers (20.0%) are more likely to agree than high (23.7%) and low (23.3%) frequency consumers.

11.3.4 Perceptions of food safety by country

These results also vary by country and country groupings. 41% of consumers agree that **appropriate measures are taken in case of a food risk**. This score is higher for EU15 countries (42%) than for EU12 countries (38%) and varies from 21% in Greece to 62% in Finland.

The average proportion of consumers who agree with **'I always eat safe meat'** is 41%. This proportion is lower in the EU15 (40%) than in the EU12 (46%). Romania and Malta have the highest scores with respectively 66% and 62%, while the Czech Republic has the lowest score with 9%.

Agreement with the **public authorities adequately ensuring the safety of meat** is 35% on average. This compares with 36% among EU15 consumers and 33% among EU12 consumers. Finland has the highest percentage with 59%. Lithuania and Slovakia score the lowest with 17% and 19% respectively.

32% of consumers agree that **meat from the EU is safer than meat from outside the EU**. The EU15 average is 33%, while the EU12 average is 28%. Six countries score above 40% for this statement:

Cyprus (51%), Slovenia (49%), Italy (47%), Malta (46%), Ireland (44%) and Spain (43%). Consumers in the Czech Republic (14%) have the lowest agreement score.

The average agreement with **producers and retailers adequately ensuring meat safety standards** is 32%, with 33% in EU15 countries and 28% in EU12 countries. Cyprus scores the highest with 48%, followed by Malta and Finland (both 47%). Four countries have agreement scores of below 15% on this question: Latvia (14%), Lithuania (13%), the Czech Republic (13%) and Slovakia (10%).

11.3.5 Discrepancy between perceptions and the actual situation

Although large proportions of consumers agree with all safety statements included in the survey, differences between countries can be quite large and the largest proportions of consumers are found in the middle category (5-7). This could be linked to a discrepancy between consumer perceptions and the actual state of play.

According to some of the national stakeholder interviews, food safety legislation in the EU is quite comprehensive and ensures a high level of safety for consumers. Consumers, however, have different ideas about food safety compared to experts, and there are significant differences between these groups (Verbeke, 2010). Several national stakeholders mention that consumers have little knowledge of food safety and controls. For instance, one stakeholder mentions that consumers seem to trust the vegetable market more, when it is actually less regulated than the meat market.

Consumer perceptions of hygiene in their country and more objective assessments are not always aligned. As a case-study, we compared some of the key issues mentioned in the follow-up status reports within the country profiles published by the Food and Veterinary Office[134] with the results of the consumer survey related to hygiene[135] for selected countries. In two cases, the audits highlighted a larger number of necessary improvements and consumer scores were close to the average or below. Similarly, audits highlighted few areas for improvements in two countries where most consumer scores were above average. However, in the two remaining countries, veterinary audits pointed out a limited number of issues but consumers scores were less positive than could be expected given the audit results.

This leads to a two-fold relation between the consumer perception of legislation and the objective market conditions. Firstly, consumers act largely based on their beliefs, expectations and perceptions in the context of government policy and legislation which often translates into trust in public authorities and experts. Secondly, as consumer understanding is largely based on trust it is prone to be shaped by misconceptions and external influence, such as the media attention given to food safety issues, which have been witnessed to easily shake consumer trust on the meat market. The timeline of outbreaks and contaminations (Figure 114.) and the case-study on the impact of food scandals on trust (Figure 115.) provide more detailed evidence of this trend.

Consumers tend to expect that the safety of meat is guaranteed by authorities through legislation and control. In a qualitative survey about perceptions of beef safety carried out by Wezemael et al. (2010), consumers considered government action necessary in two main areas: adopting legislation

[134] http://ec.europa.eu/food/fvo/country_profiles_en.cfm

[135] Agreement with safety statements at Q19, satisfaction with safety items at Q13, importance of 'Hygienic display at Q15 and mean waste frequency at Q7.

against unsafe food and controlling compliance in terms of production methods, place of purchase and quality control. Traceability was also seen as a key element of safety.

Meat safety processes and controls are often unclear for consumers. As a result, a food safety crisis with significant media coverage can have a large impact on the market, particularly in terms of trust. As seen above, 21% of EU consumers say they have changed their eating habits because of a media story. However, prompt action by the authorities and companies can limit the damage to consumer trust. One of the national stakeholders mentioned the 2008 dioxin outbreak in Ireland as an example of a food safety issue that was dealt with straight away and therefore only had a limited impact on consumer trust.

Figure 114. Timeline: Disease outbreaks and contaminations in the EU

Bovine spongiform encephalopathy (neurodegenerative disease)
Major outbreaks: 1986 to early 2000s in the UK then EU-wide

An outbreak of BSE was identified in UK cows in 1986 and subsequently spread to other countries. The disease affects cattle but humans who consumed BSE-infected meat developed similar symptoms and a number of human deaths have been linked to the outbreak. Subsequent rules have been put in place to deal with BSE, providing a comprehensive framework for meat safety in the EU. The incidence of the disease has gone from 37,056 animal cases in 1992 to 129 cases in 2006 in the UK (EC, 2007). Heavy media coverage of the issue makes it one of the most influential food scandals in recent history, with wide-ranging consequences on food safety and meat consumption, particularly of beef (Verbeke, 2010). **Several national stakeholders mention it as a turning point for the meat market, as better processes were put in place after the crisis.**

Foot and mouth disease (viral disease)
Major outbreaks: 2001 in the UK, Ireland, France and the Netherlands, 2007 in the UK, 2011 in Bulgaria

In 2001, an outbreak of the foot and mouth disease occurred in the UK before spreading to Ireland, France and the Netherlands. Cattle movement restrictions and slaughters of affected animals helped contain the outbreak. Two smaller outbreaks were identified in 2007 in the UK and in 2011 in Bulgaria (EC, 2011g).

H7/N7/Avian Influenza (viral disease)
Major outbreaks: 2003 in the EU

Outbreaks of a highly pathogenic strain of avian influenza virus A (H7N7) have been reported in various poultry farms in the Netherlands and Belgium starting February 2003. The H7N7 strain caused one human death and more than 80 cases of mild disease in humans (WHO, 2003).

H5N1/avian influenza (viral disease)
Major outbreaks: 2003 in South East Asia, 2006 in the EU

The 2003 Asian outbreak had a wide-ranging impact and reached the EU in 2006. Strict control measures were put in place to prevent infected poultry from entering the food chain (EC, 2006b).

H1N1/swine flu (viral disease)
Major outbreaks: 2009 in the EU

Pigs infected with the H1N1 strain of influenza were found in the EU and worldwide in 2009. A number of human deaths were linked to the outbreak and the World Health Organisation declared the disease a pandemic. However, the fact that the disease did not spread through pork products limited its impact on the pork industry (WHO, 2009; EFSA; 2010).

Dioxin contamination (pollutants)

Several major crises resulting from contamination of animal feed with dioxins occurred throughout the EU: Belgium in 1999 and 2006, Ireland in 2008 and Germany in 2010 (EC, 2006e; EC, 2011e). The dioxin contamination in Belgium in 1999 was widely covered in the media and resulted in the resignation of a number of politicians in Belgium and the Netherlands and a US ban on EU food products (World Socialist Website, 1999). The other contaminations received more limited media coverage.

Figure 115. Trust: Impact of food scandals related to animal production in the EU

In the last decades we have witnessed a number of food safety scares, including small and large outbreaks of animal diseases such as BSE. In all cases, the damage to the meat market and to society can be large in economic, social and ecological terms (EC, 2006e; Knowles et al., 2007).

The BSE (Bovine Spongiform Encephalopathy) crisis in particular affected European consumers' trust. Better food safety controls and traceability systems were crucial in improving consumer perception after the crisis. (Verbeke, 2010). This point was also made by several national stakeholders, who mentioned the efforts made to increase the level of food safety in the EU over the past two decades.

With all food safety control measures in place, risk of food-borne diseases are low but zero-risk is not possible. The growing population of elderly and immune-compromised, who are more susceptible to food-borne diseases, increased the need to keep improving food safety control and predict emerging risks in food safety (van Wagenberg, 2010). The European Food Safety Agency (EFSA) has been working on the concept of Emerging Risks for some years now (EFSA, 2010). The Emerging risks unit published in 2012 a report proposing a methodological framework for the identification of emerging risks as well as recommendations on how to improve this process (EFSA, 2012).

Predicting emerging risks is a useful tool to improve food safety, but early warnings of food safety issues

are also essential. Communication is a crucial element of the food safety system and will remain so in the coming years (EC, 2009j).

11.3.6 Perceptions of consumer information on safety

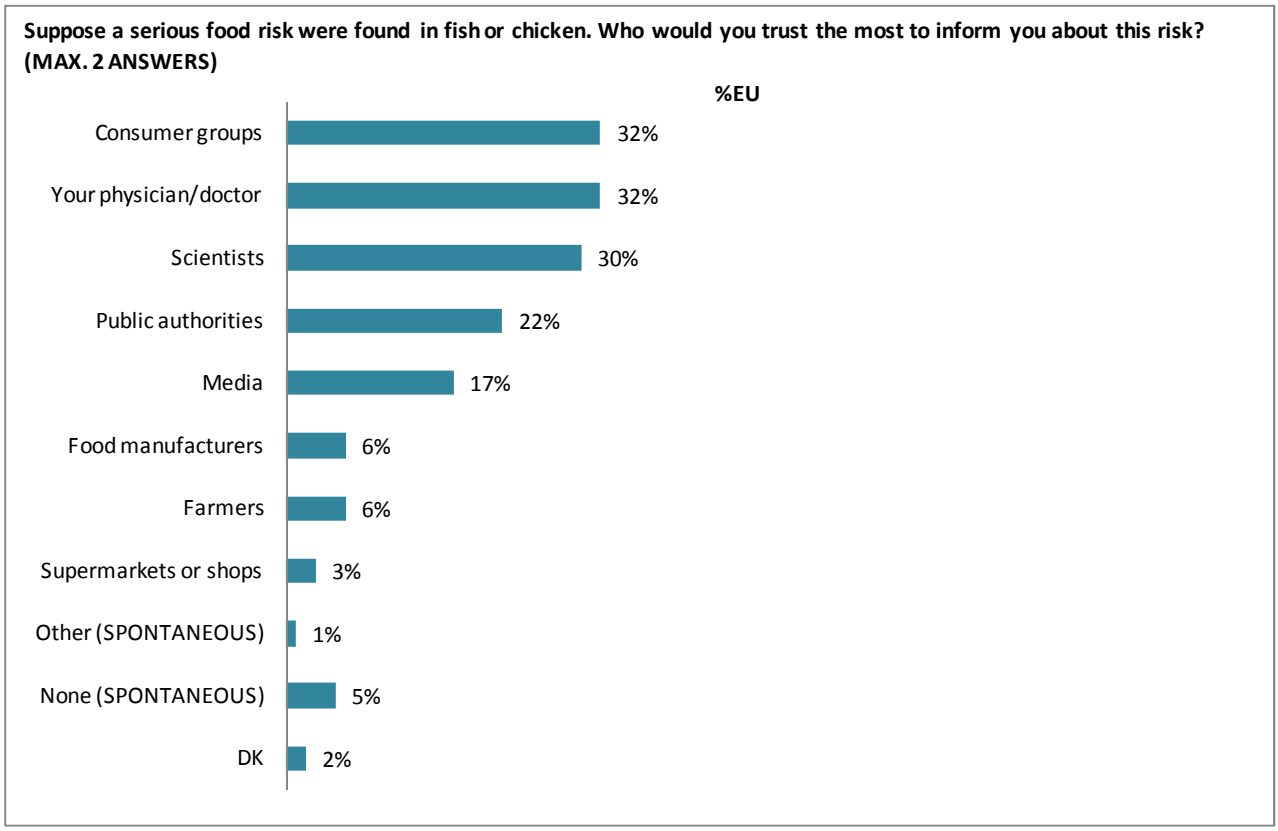
Given the issues identified above in terms of consumer perceptions of safety, it is useful to address how best to communicate with consumers on this topic. One of the strategies to reduce consumer uncertainty is to provide effective and transparent information to the consumer. Indeed, safety cannot be assessed directly by consumers and building their trust is essential. (Wezemael, 2010).

Two important aspects should be taken into account when providing information: the information channel and the format. First, information should be provided by the actors that consumers trust the most. In this respect, independent certifications are a way to provide consumers with visible safety cues when buying meat (Wezemael, 2010). Public authorities play an important role, with 56% of EU consumers saying that public authorities in the EU do a good job in informing people about the risks related to food (Eurobarometer 238, 2006). However, when asked who they would trust the most regarding food risks, consumers are more likely to mention consumer groups, doctors and scientists (Figure **107.**). This supports the research finding that an integrated information chain involving actors at all stages of the meat market chain would be needed (Wezemael, 2010).

Second, the format of safety information needs to be adequate. There is evidence that too much information may confuse consumers; for instance offering too many different certifications may make it more difficult for consumers to evaluate products (OECD, 2008). It is therefore important to provide easily accessible information that will not overload consumers (Wezemael, 2010).

This is particularly important given 21% of consumers agree that a media story changed their eating habits in the consumer survey.

Figure 116. Trust in information sources in case of food risk in fish or chicken



(Eurobarometer 238, 2006)

12 STRUCTURE OF THE MEAT MARKET

CHAPTER SUMMARY – STRUCTURE OF THE MARKET

Main findings

- There is a **trend towards food retail concentration**. The share of the top three food retailers is over 90% in three Member States: Luxembourg, Cyprus and Sweden.
- Consumers tend to be loyal to their retailer, but the consumer survey results show that **39% of consumers do not use their preferred retailer as their main retailer**.
- The **number of inhabitants per food retail chain outlet** in Romania (22568 inhabitants) and Bulgaria (17590) is higher than the EU median (2492). Significant proportions of consumers in these two countries use other channels than large retail chains to buy meat, but this may be evidence of a more limited access to retail outlets in these countries.
- Consumers in all countries spend money on various categories of meat, which indicates that they have access to a range of products.
- Households with higher expenditure spend a lower share of their expenditure on meat, but have a higher absolute meat spend. Households with higher incomes tend to spend more on beef.
- **Online and cross-border shopping are still niche markets**. Cross-border shopping is highly country specific and is limited by the access to borders and consumer preferences for meat produced in their country. Barriers to online shopping are technical infrastructures, a short shelf life and the importance of intrinsic cues for consumers.

The supply of meat at macro level seems sufficient and most consumers have access to a range of purchase channels. However, the impact of retail concentration on consumer choices should be researched further.

Research questions

Do consumers have a sufficient choice of alternative retailers and sales channels? Do consumers throughout the single market have access to the same breadth of choice of retailers? To what extent consumers switch between retailers when buying meat and to what extent they are satisfied and loyal to a particular retailer What is the extent and future potential for consumers to buy meat online or by other distant sales channels? What is the extent and future potential for consumers to buy

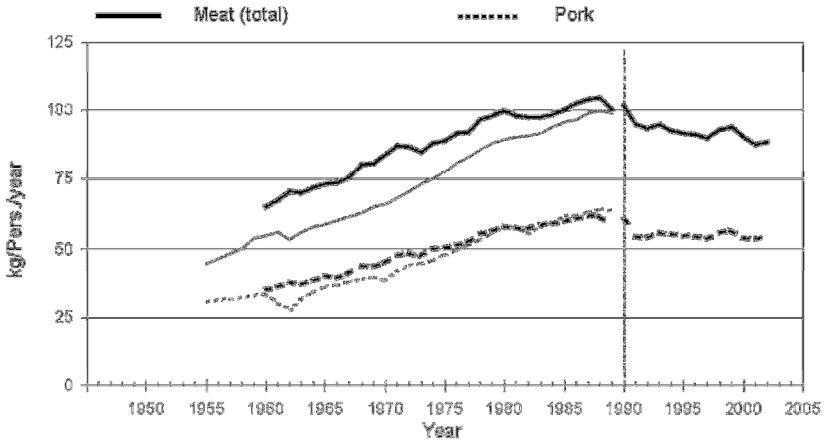
meat cross-border from another EU country?

This chapter addresses the structure of the meat market in terms of availability of meat and meat products and purchase channels.

12.1 General availability of meat

This section highlights trends in the availability of meat in the EU in general. Please note this is different from the availability of meat *at the retailer*. The most important factor that influenced the structure of the meat market in recent decades is the general availability of meat coupled with its growing consumption. Figure 117. shows the trend in meat availability in Germany over the last few decades. This pattern is fairly representative of meat availability trends in a number of other European countries.

Figure 117. Mean availability of meat and meat products over time in Germany according to food balance sheets (kg/person/day)



(Gedrich, Wagner, Himmerich & Karg, 2005)

In most European countries, the overall supply of meat increased between the 1960s and 1990s, before decreasing in the 1990s. This last trend is linked to changes in consumer preferences and meat safety crises (Verbeke et al., 2010). Eastern European countries followed a slightly different pattern due to meat shortages and rationing during communist times (Atkinson & Micklewright, 1992). Several national stakeholders mention that **Eastern European consumers who were used to a limited supply of meat during Communist times have different expectations and attitudes to meat consumption and availability**.

Still, the availability of meat remained high in the 1990s, with an increasing variety of meat types. (Verbeke et al., 2010). In other words, there is a good supply of meat in the EU at macro-level.

12.2 General availability of meat categories in terms of animal species

Further evidence that the general availability of meat is ensured in the EU can be seen in household expenditure data.

We compared the annual household expenditure on meat categories across the EU member states and across socio-demographic variables. This analysis looks at meat purchases, which gives an indication of possible constraints in availability faced by consumers when choosing meat. The household expenditure data were retrieved from the 2005 Household Budget Survey of the EU available through Eurostat. We used descriptive statistics and Pearson correlations to analyse the data. Results show that **consumers in each of the 27 member states buy almost all meat categories. Larger households and households with a higher income level spend more on meat than smaller households and households with a lower income.** Within each of the EU member states differences between expenditure on the different meat categories exist between small and large households and between high and low income households. In general, larger households buy less dried/salted/smoked and other meat, and buy more poultry and pork. Higher income households have a comparable meat expenditure on particular meat categories in terms of percentage of total meat expenditure, although a slight trend to higher expenditure on beef can be observed.

12.2.1 Household expenditure on meat

The **household expenditure** on different meat categories in each of the 27 member states was analysed. This data shows the range of products bought by consumers in different countries, and therefore gives an indication of the availability of different products. Indeed, **consumers who buy a wide range of meat categories are likely to have good access to this range of products**.

Figure 118. provides the expenditure on meat in the 27 EU member states and Figure 119. the percentage of expenditure on each meat category in the total expenditure**. Beef, pork, poultry, dried/salted/smoked meat and meat preparations were purchased in significant amounts in all member states**. Only sheep/goat and other meat were not purchased in all countries. In general, this indicates that almost all meat categories are available in each of the 27 EU member states.

However, there are **significant differences in consumption profile across countries** and some national stakeholders mention that availability is good for 'popular' products but that **the availability of niche products is limited**.

It is important to note that the absolute expenditure per household varies by country. The pattern seen below mostly follows the differences in price levels observed in the mystery shopping exercise: countries with high price levels are more likely to have high meat expenditure and vice versa. The exceptions are Spain, which has a higher meat expenditure but lower price levels and Finland, Sweden and the Netherlands, which have lower meat expenditures but higher price levels.

Figure 118. Total expenditure on meat and per animal type for the 27 EU member states in 2005

Total expenditure (€/household) on meat and per animal type for the 27 EU member states in 2005.

Country	Total	Beef	Pork	Sheep/goat	Poultry	Dried/salted/ smoked meat	Meat preparations	Other meat
Romania	338	34	86	9	89	89	31	0
Bulgaria	224	9	30	21	36	82	9	36
Lithuania	511	15	153	0	56	138	143	5
Latvia	449	24	138	0	48	185	42	18
Poland	469	19	109	n.a. [a]	84	219	26	6
Slovakia	406	26	105	0	111	138	26	0
Hungary	457	13	141	0	107	175	20	0
Estonia	388	7	76	0	28	201	69	0
Czech Republic	357	21	71	0	71	150	21	14
Portugal	669	158	194	35	123	106	35	18
Slovenia	727	160	142	0	106	266	35	0
Malta	866	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	1,113	213	142	71	166	426	71	24
Greece	975	352	162	162	162	108	0	0
Italy	1,234	505	140	28	168	n.a.	28	84
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	1,007	267	89	59	119	356	89	30
Finland	683	59	89	0	59	297	59	119
Sweden	568	90	120	0	60	269	30	0
Netherlands	668	152	121	30	91	213	152	0
Austria	882	91	152	0	122	396	30	0
Cyprus	802	31	247	154	185	123	31	62
Belgium	1,072	158	63	32	95	441	284	32
Denmark	864	233	166	0	133	332	33	0
UK	767	105	35	35	139	105	314	0
Ireland	1,168	314	180	90	225	225	135	0
Luxembourg	1161	264	106	0	158	422	106	53

Source: Household Budget Survey of the EU (2005). Total = HE112 (Meat), Beef = HE1121 (Fresh, chilled or frozen meat of bovine animals), Pork = HE1122 (Fresh, chilled or frozen meat of swine), Sheep/goat = HE1123 (Fresh, chilled or frozen meat of sheep and goat), Poultry = HE1124 (Fresh, chilled or frozen meat of poultry), Dried/salted/smoked meat = HE1125 (Dried, salted or smoked meat and edible meat offal), Meat preparations = HE1126 (Other preserved or processed meat and meat preparations), Other meat = HE1127 (Other fresh, chilled or frozen edible meat). [a] *n.a.=not available.*

Figure 119. Expenditure on meat per animal type for the 27 EU member states in 2005 as per cent of total expenditure on meat

Expenditure on meat per animal type for the 27 EU member states in 2005 as per cent of total expenditure on meat.

	Meat expenditure (% of total household expenditure on meat)						
Country	**Beef**	**Pork**	**Sheep/goat**	**Poultry**	**Dried/salted/ smoked meat**	**Meat preparations**	**Other meat**
Romania	10.2%	25.4%	2.5%	26.3%	26.3%	9.3%	0.0%
Bulgaria	4.1%	13.5%	9.5%	16.2%	36.5%	4.1%	16.2%
Lithuania	3.0%	30.0%	0.0%	11.0%	27.0%	28.0%	1.0%
Latvia	5.3%	30.7%	0.0%	10.7%	41.3%	9.3%	4.0%
Poland	4.1%	23.3%	n.a. [a]	17.8%	46.6%	5.5%	1.4%
Slovakia	6.5%	25.8%	0.0%	27.4%	33.9%	6.5%	0.0%
Hungary	2.9%	30.9%	0.0%	23.5%	38.2%	4.4%	0.0%
Estonia	1.8%	19.6%	0.0%	7.1%	51.8%	17.9%	0.0%
Czech Republic	6.0%	20.0%	0.0%	20.0%	42.0%	6.0%	4.0%
Portugal	23.7%	28.9%	5.3%	18.4%	15.8%	5.3%	2.6%
Slovenia	22.0%	19.5%	0.0%	14.6%	36.6%	4.9%	0.0%
Malta	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	19.1%	12.8%	6.4%	14.9%	38.3%	6.4%	2.1%
Greece	36.1%	16.7%	16.7%	16.7%	11.1%	0.0%	0.0%
Italy	40.9%	11.4%	2.3%	13.6%	0.0%	2.3%	6.8%
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	26.5%	8.8%	5.9%	11.8%	35.3%	8.8%	2.9%
Finland	8.7%	13.0%	0.0%	8.7%	43.5%	8.7%	17.4%
Sweden	15.8%	21.1%	0.0%	10.5%	47.4%	5.3%	0.0%
Netherlands	22.7%	18.2%	4.5%	13.6%	31.8%	22.7%	0.0%
Austria	10.3%	17.2%	0.0%	13.8%	44.8%	3.4%	0.0%
Cyprus	3.8%	30.8%	19.2%	23.1%	15.4%	3.8%	7.7%
Belgium	14.7%	5.9%	2.9%	8.8%	41.2%	26.5%	2.9%
Denmark	26.9%	19.2%	0.0%	15.4%	38.5%	3.8%	0.0%
UK	13.6%	4.5%	4.5%	18.2%	13.6%	40.9%	0.0%
Ireland	26.9%	15.4%	7.7%	19.2%	19.2%	11.5%	0.0%
Luxembourg	22.7%	9.1%	0.0%	13.6%	36.4%	9.1%	4.5%

Source: Household Budget Survey of the EU (2005). [a] *n.a. = not available.*

12.2.2 Relationship between total expenditure and meat expenditure

Figure 120. provides the total expenditure in euro per household in the 27 EU member states, the expenditure on meat as percentage of total expenditure, and the expenditure on meat in euro per household. **If total annual expenditure per household in a country is higher, then the percentage spent on meat is lower**.

Correlations were run on the household expenditure data to assess whether higher or lower household expenditure is linked to the purchase of specific meat categories, that is, if households who spend more money on meat have a different purchase pattern. Positive figures in Figure 121. indicate a positive relationship between variables, while negative figures indicate a negative relationship.

The Pearson correlation between total annual household expenditure and per cent expenditure on meat in that country (Figure 121.) is -0.812 ($p<0.000$). This means that the higher the household expenditure, the lower the proportion of the expenditure spent on meat.

Besides, **if the total annual expenditure of households in a country is higher, the absolute amount of money spent on meat is also higher**. This is evidenced by the Pearson correlation between total annual household expenditure and absolute annual expenditure on meat (Figure 121.), which is 0.827 ($p<0.000$).

Households in countries with higher total annual expenditure spend more money on all types of meat, as indicated by the positive Pearson correlations in the second column of Figure 121..

A higher annual household expenditure in a country is also correlated with a higher percentage of expenditure on beef in that country (Pearson correlation of 0.613, $p=0.001$) and a lower expenditure on pork (Pearson correlation -0.605, $p=0.001$).

Figure 120. Total annual expenditure and annual meat expenditure in euro per household in the EU in 2005

Total annual expenditure and annual meat expenditure in euro per household in the EU in 2005.

Country	Total expenditure (€/household/year)	Meat expenditure (% of total expenditure)	Meat expenditure (€/household/year)
Romania	2,863	11.8	338
Bulgaria	3,030	7.4	224
Lithuania	5,109	10.0	511
Latvia	5,981	7.5	449
Poland	6,428	7.3	469
Slovakia	6,550	6.2	406
Hungary	6,715	6.8	457
Estonia	6,936	5.6	388
Czech Republic	7,146	5.0	357
Portugal	17,607	3.8	669
Slovenia	17,738	4.1	727
Malta	18,829	4.6	866
Spain	23,682	4.7	1,113
Greece	27,081	3.6	975
Italy	28,053	4.4	1,234
Germany	29,232	n.a. [a]	n.a.
France	29,632	3.4	1,007
Finland	29,705	2.3	683
Sweden	29,885	1.9	568
Netherlands	30,360	2.2	668
Austria	30,428	2.9	882
Cyprus	30,856	2.6	802
Belgium	31,521	3.4	1,072
Denmark	33,241	2.6	864
UK	34,859	2.2	767
Ireland	44,909	2.6	1,168
Luxembourg	52,754	2.2	1,161

Source: Household Budget Survey of the EU (2005). Total expenditure = HE00 (Total consumption expenditure). [a] n.a. = not available.

Figure 121. Pearson correlations with total expenditure per household

Pearson correlations (2-tailed significance) with total expenditure per household					
Variable related to per cent of meat expenditure	Pearson correlation with total expenditure	(significance)	Variable related to absolute meat expenditure	Pearson correlation with total expenditure	(significance)
Per cent total meat expenditure	-0.812	(0.000)	Total meat expenditure	0.827	(0.000)
Per cent beef expenditure	0.613	(0.001)	Beef expenditure	0.637	(0.001)
Per cent pork expenditure	-0.605	(0.001)	Pork expenditure	0.218	(0.296)
Per cent sheep / goat meat expenditure	0.235	(0.259)	Sheep/goat meat expenditure	0.331	(0.114)
Per cent poultry meat expenditure	-0.241	(0.246)	Poultry meat expenditure	0.658	(0.000)
Per cent dried, salted, smoked meat expenditure	-0.255	(0.219)	Dried/salted/smoked meat expenditure	0.557	(0.005)
Per cent meat preparations expenditure	0.119	(0.571)	Meat preparations expenditure	0.398	(0.049)
Per cent other meat expenditure	0.000	(0.998)	Other meat expenditure	0.275	(0.184)

Source: Household Budget Survey of the EU (2005).

12.2.3 Expenditure by household size

In this section we analyse **total meat expenditure and expenditure per meat type by household size**. In the analysis the following number of people per household is assumed: household size ≤ 1: 1 person, size 1-2: 1.5 people, size 2-3: 2.5 people, size 3-4: 3.5 people, size 4-5: 4.5 people and size >5: 5.5 people. If less than 10 observations were available in a specific category in a country (e.g. household size > 5 people), these expenditure data were excluded from the analysis. Figure 122. shows that **in almost every country the average meat expenditure per person is the highest in households with a size of 1 to 2 adult-units**. The expenditure is lower in the smallest households (≤ 1 adult) and also in the larger households (≥ 2 adults).

Figure 123. shows the differences in the percentages per meat category between larger and smaller households in each country. It reveals **large differences between countries with regard to the differences in meat type shares between larger and smaller households**. For example in France larger households buy relatively more sheep/goat and other meat but less bovine and dried, salted, smoked meat. In Austria for example larger households buy more beef and pork, but less sheep/goat, other meat and dried/salted/smoked meat. Nonetheless, the overall trend in the EU27 is that **larger households buy less dried/salted/smoked meat and other meat, and buy more poultry and pork**.

Figure 122. Total meat expenditure in euro per person by size of household (Eurostat).

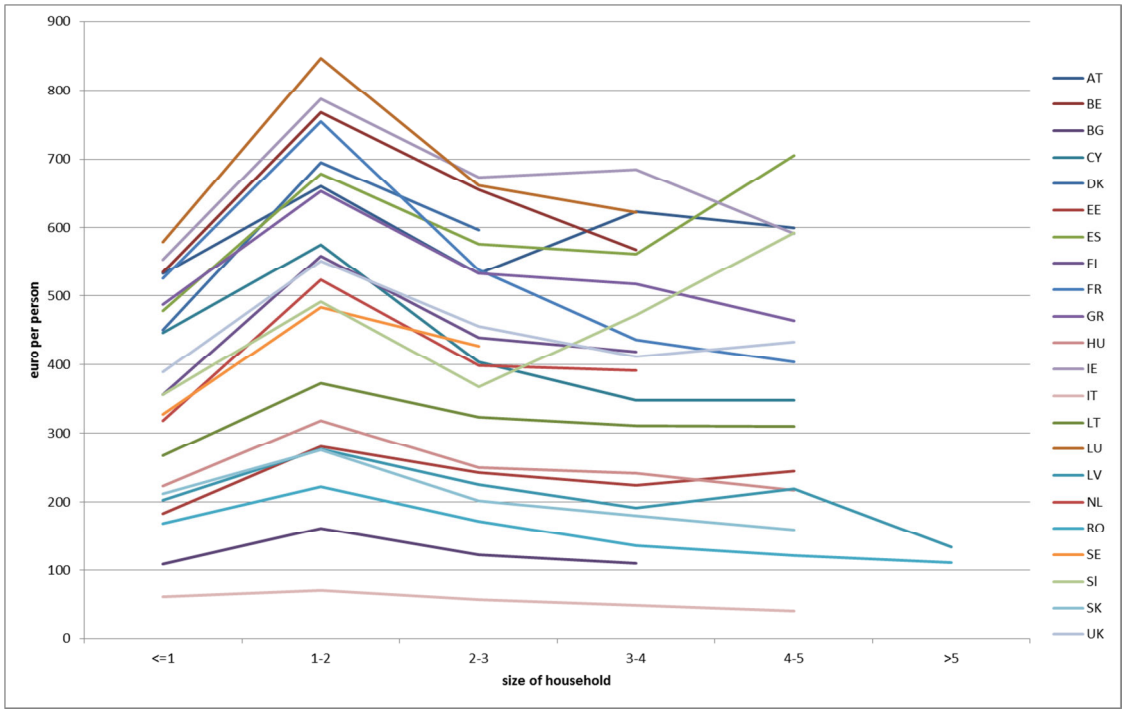


Figure 123. Differences in annual household expenditure per meat type by household size

Differences in per cent of annual household expenditure per meat type between households with >3 persons with households with ≤3 persons (>3 persons minus ≤3 persons). Only differences ≥3% are presented.

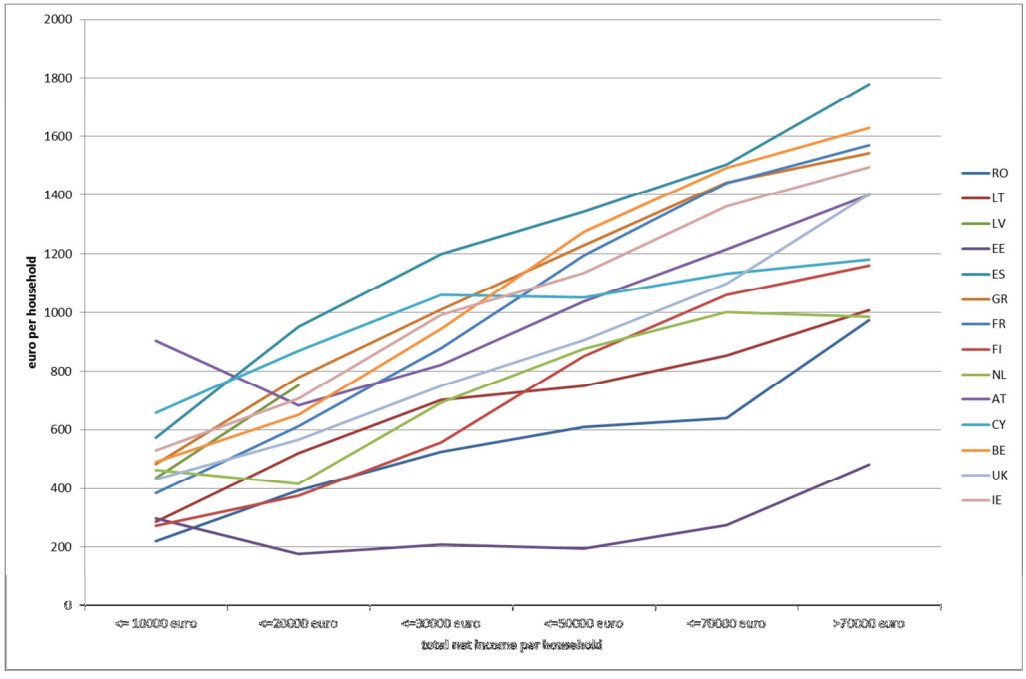
	Beef	Pork	Sheep/goat	Poultry	Dried/salted/ smoked meat	Meat preparations	Other meat
RO							
BG			4%		-4%		
LT	5%	5%	15%			-3%	-22%
LV		7%			-3%		4%
SK		-6%			5%		
HU	7%		-11%	4%	12%		-13%
EE		5%			-4%		
SI		17%		-3%	-11%		
ES	-5%	6%			-5%	5%	
GR	5%	4%	-6%	5%			-7%
FR	-6%		15%		-14%		5%
FI	4%	-3%			-7%		10%
NL	-9%	7%			-5%	8%	
AT	9%	19%	-13%		-7%		-12%
CY	-3%		-4%				
BE	-3%					4%	
UK			8%	8%	-5%	-11%	
IE					-3%	3%	
LU	-5%	3%		3%	-3%		

Source: Household Budget Survey of the EU (2005).

12.2.4 Expenditure by income level

In this section we analyse **total meat expenditure and expenditure per meat category by household income level**. If less than 10 observations were available in a specific category in a country (e.g. income level >70,000 euro per household), these expenditure data were excluded from the analysis. Figure 124. shows that households with a higher net income spend considerably more money on meat, i.e. approximately 1,000 to 1,600 euro, compared to lower income households, which spend approximately 200 to 700 euro per year. Households with an annual income of over 70,000 euro spend on average 1,100 euro per year on meat, more than twice as much as the 450 euro per year households with an income annual level of less than 10,000 euro spend. Figure 125. compares the per cent point of meat category expenditure (as per cent of total meat expenditure) of households with more than 30,000 euro income with those less than 30,000 euro income per meat category. For each country a different pattern emerges. The overall trend is that **households with a higher income have a comparable meat expenditure on meat categories in terms of percentage of total meat expenditure, although a slight trend to higher expenditure on beef can be observed**.

Figure 124. Total meat expenditure in euro per household by net income level



(Eurostat, 2005).

Figure 125. Differences in expenditure per meat type by household income

Differences in % of meat type households income with >30 000€ per year compared to households with ≤30 000€ per year (> 30 000€ minus ≤30 000€). Only differences ≥3% are presented.							
	Beef	Pork	Sheep/goat	Poultry	Dried/salted/ smoked meat	Meat preparations	Other meat
Romania	3%						
Lithuania							
Latvia		5%	9%	-7%	-25%	30%	-11%
Estonia		-5%			6%		
Spain	5%	-5%		-5%	6%		
Greece	4%						
France							
Finland	4%			3%	-7%	-3%	
Netherlands							
Austria			-7%		4%		
Cyprus							
Belgium							
UK				3%		-4%	
Ireland	4%	-4%					

Source: Household Budget Survey of the EU (2005).

(Eurostat, 2005).

12.3 Consumer perception of choice of retailers

A majority of consumers surveyed in the 2011 consumer survey use a supermarket (40%) or a hypermarket (18%) as their main retailer. 25% mentioned a butcher shop as their main retailer. The other options were chosen by smaller proportions of consumers: grocery or convenience stores (7%), discount stores (6%), farms (2%) and markets (2%). The share of supermarkets and hypermarkets is consistent with the results of the 2009 survey, which found out that 67% of consumers said they mostly shopped at these retailers.

Aside from traditional purchase channels, technological growth is expected to drive consumer demand for Internet-based alternatives. The Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods (2011) showed that 90% of respondents (surveyed online) had bought products online in the past 12 months. However, grocery products present specific challenges, among others due to their short shelf life. The currently **limited potential of the Internet as a meat purchase channel** is confirmed by the results of the 2009 consumer satisfaction survey (Ipsos): under 1% of EU consumers purchased meat online prior to the survey and a proportion of 3% of EU consumers stated that they would purchase meat through such channel in the next 12 months after the survey.

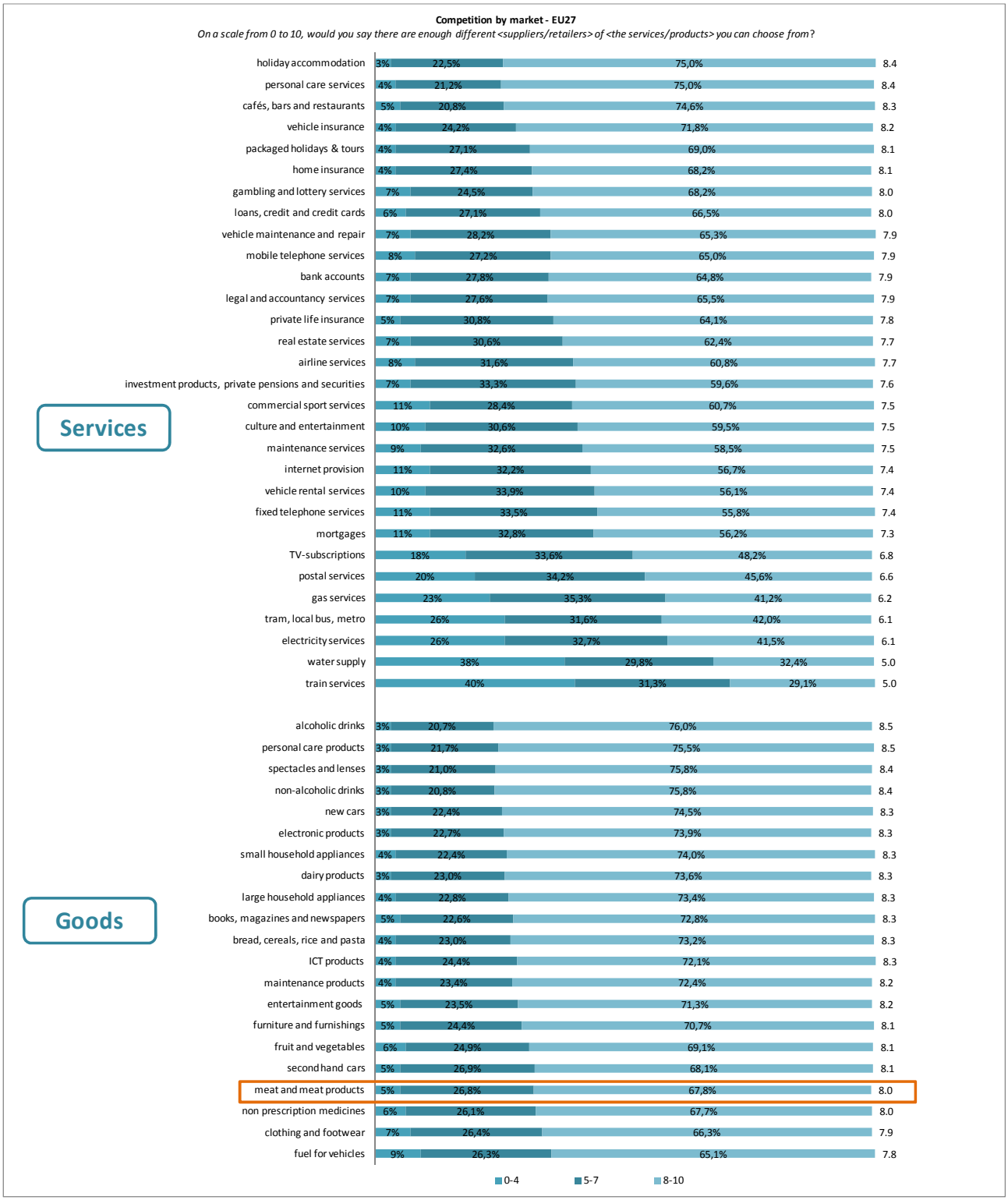
The growth of Internet purchases of meat is limited by a number of obstacles. One important aspect is that consumers want to see and touch grocery products before they buy them (Keh & Shieh, 2001). This is particularly true for meat, as shown by the results of the consumer survey: intrinsic cues play an important role in the purchase decision-making. Besides, grocery products' short shelf life requires prompt deliveries (Keh & Shieh, 2001),and presents more logistical challengers than other products.

Interest in cross-border meat purchases is similarly limited, with 11% of EU consumers agreeing it is 'worthwile' to purchase meat directly from another EU country, compared with 57% who disagree (Ipsos, 2009). Still, these figures hide wide variations across the EU, with 27% of Romanian consumers agreeing, compared with less than 1% of Maltese consumers. Consumers in the EU12 countries (18%) are more likely to agree than EU15 consumers (9%).

Overall, a majority of consumers surveyed in 2009 (69%) agreed that they **had a wide enough choice of retailers** where they can purchase meat conveniently. Similarly, 68% of consumers surveyed for the 2011 Consumer markets scoreboard think that there are enough retailers of meat and meat products they can choose from with an average rating of 8.0 out of 10 (Figure 126.). However, this score varies across countries, between 7.4 in Bulgaria and Italy and 9.1 in Malta (9.1).

Looking at the Market Performance Index of the 2011 Consumer market scoreboard, the market of meat also records the lowest score among the goods markets. Together with the fact that a sizeable minority of consumers think they do not have a wide enough choice of retailers, these findings show that **the choice of retailers may not be an issue for the majority, but that there is space for improvement**.

Figure 126. Competition by market – EU27



(GfK, 2011)

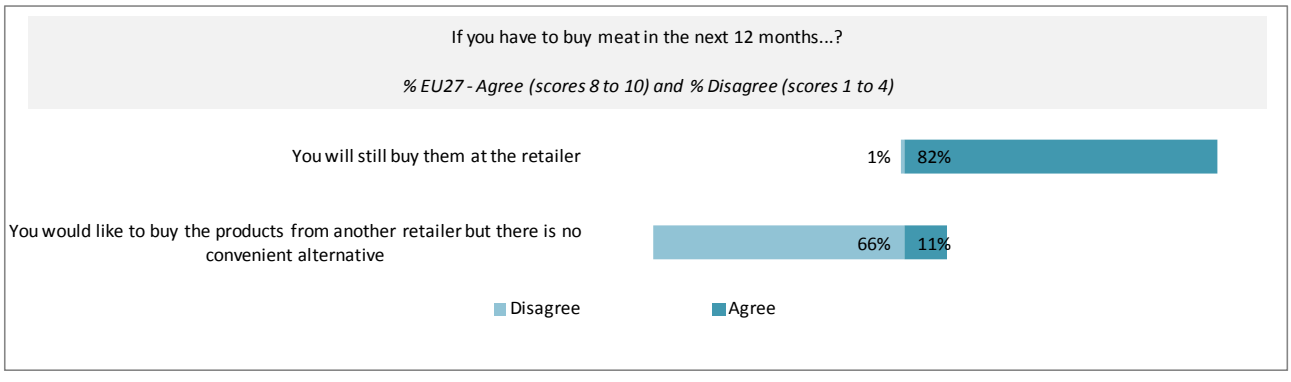
12.4 Concentration of retail and consumer loyalty

Concentration has increased in food retail in the last decades. The same trend appears on the production side, although to a lesser extent (Ecorys, 2011). Increased concentration may result in less competition. Food retail has become concentrated in the last decades because of mergers and acquisitions as well as growth of the most successful supermarket formulas. The market share of the Top 5 retailers is well above 60% in most European countries. Moreover, food retailers have become multinationals and co-ordinate their buying activities with other retailers. At the same time, the market share of alternative distribution channels falls – notably, butchers and local markets - with the exception of food service (Clarke et al. 2002; Bunte et al. 2011).

Several studies point out that **retail concentration at the local level is even higher**. The UK Competition Commission (2008) established that 11 to 27 per cent of the larger grocery stores are in highly concentrated local markets. Stelder (2010) found that many Dutch consumers have the choice between a limited number of supermarkets in their immediate surroundings. If consumers do not want to travel more than 1 kilometre, 23% of the consumers faces a local monopolist. In The Hague, Albert Heijn is the nearest supermarket for 75% of the population. Local monopolies could result in higher prices or a narrower choice of meat products for consumers. Consumers who say they are not currently buying meat at their preferred retailer in the 2011 consumer survey were prompted on why they did not shop there. 31% mentioned their preferred retailer being too far away, the third most frequent answer. This finding is evidence that access to retailers may be an issue for some consumers (12% of all surveyed consumers in this case).

Concentration of retail has been seen to limit the sufficient choice for consumers to purchase meat from a number of retail channels. However, as the results of the 2009 Consumer Satisfaction survey show, **consumers tend to be highly loyal to their current retailer** (Figure 127.). 82% of the EU consumers indicated that they would buy meat from the same retailer in the next 12 months, whereas only 11% indicated that they would like to buy from another retailer but there is no convenient alternative. This compares with 61% of respondents of the 2011 consumer survey who say their main retailer is also their preferred retailer.

Figure 127. Retailer loyalty



When looking at the results at country level, it can be seen that the majority of consumers in each Member State would still buy from the same retailer and a minority would like to buy from an alternative retailer but do not have such opportunity. It should be noted, however, that consumers in the EU12 countries show both lower levels of loyalty to their current retailer and a higher likelihood to be willing to purchase from another retailer, if such alternative existed conveniently (Ipsos, 2009).

Besides, the likelihood to remain with the same retailer may be indicative of a limited choice of retailers rather than of a strong loyalty. Indeed, 39% of consumers surveyed in the 2011 consumer study indicated different purchase channels as their main and preferred retailers. When asked why they do not currently use their preferred retailer, 36% of consumers mentioned high prices, 32% being able to do all of their shopping in one go at their usual retailer and 31% their preferred retailer being too far away. In contrast, consumers who say their main retailer is their preferred retailer were asked why they shop there. The most frequent mentions were the choice of products (58%), suitable prices (56%) and convenient access (56%).

These findings show that consumers select their main retailer based on prices, convenience and choice. These practical factors seem to play a bigger role than individual preferences for a specific type of retailer.

12.5 Choice of retail chain outlets

To assess the choice of retailers and retail chain outlets, turnover and market share of food retailers were analysed in the EU and in each of the EU member states. Furthermore, **the number of food retailers, brands, and outlets per inhabitant was compared across the EU member states**. Higher numbers of inhabitants per food retailer are an indication of consumer choice, as the range of retailers available to consumers may have an impact on consumer access to specific products.

Food retailer data were retrieved from retail-index.com, which includes food retailers of which the product sales consist for more than 50% of food products. Please note the market share used in this analysis is for food products in general and does not focus on meat and that product sales of the retailers included in the analysis consist for more than 50% of food products. **This analysis excludes retailers of which the product sales consist of less than 50% of food products, small shops, butchers and markets**. 'Brand' refers to the trade name under which a large retail chain operates. A retailer can have different brand names, for example the retailer Lidl in Germany has two brands Lidl and Kaufland. 'Outlet' refers to individual locations of the retailer chain. Descriptive statistics were used to analyse the data. Results show that on country level in most member states the choice for consumers in retailers is sufficient, with a lower choice in retailers in Romania and Bulgaria.

The top 15 food retailers in the EU27 have a market share of 66% (Figure 128.), with the largest (Carrefour) 9.4%, the second (Metro) 7.0% and the next six a market share between 4.5 and 6.0%. These food retailers have their headquarters in France (6 companies), Germany (5 companies), UK (3 companies) and the USA (1 company). **At the EU 27 level a sufficient number of food retailers exist, each with a sufficient market share**, so on the EU 27 level consumers have sufficient choice in food retailers.

Figure 128. Top 15 turnover and market share of food retailers in the EU27 in 2010

Top 15 turnover and market share of food retailers in the EU27 in 2010

	Food retailer	Headquarter	Turnover (billion €)	Market Share (%)
1	Carrefour	France	90.1	9.4
2	Metro	Germany	67.3	7.0
3	Schwarz	Germany	54	5.6
4	Tesco	UK	53	5.5
5	Rewe	Germany	50	5.2
6	Aldi	Germany	46	4.8
7	Edeka	Germany	44	4.6
8	Auchan	France	43	4.5
9	ITM	France	35	3.6
10	E. Leclerc	France	35	3.6
11	Casino	France	29	3.0
12	Sainsbury	UK	28	2.9
13	Walmart	USA	21	2.2
14	Morrison	UK	19.3	2.0
15	Systeme U	France	17.8	1.9
	Other	-	326.9	34.1
Total			**959.4**	**100**

Source: retail-index.com. The guideline of retail-index.com to include a retailer in their database is that it's product sales consist for more than 50% of food products. [a] *data from 2009.*

Figure 129. provides the market shares of the top 15 EU retailers in each of the 27 EU member states. The top 10 retailers are present in many of the member states, whereas the others are only present in the 'home' country.

Figure 129. Retailer market share per country

	Retailer market share (%)															
country	Carrefour	Metro	Schwarz	Tesco	Rewe	Aldi	Edeka	Auchan	ITM	E.Leclerc	Casino	Sainsbury	WalMart	Morrison	SystemeU	rest
EU	9.4	7.0	5.6	5.5	5.2	4.8	4.6	4.5	3.6	3.6	3.0	2.9	2.2	2.0	1.9	34.1
Austria		4.0	5.3		36.4	17.6										36.6
Belgium	19.0	5.4	4.9			11.1			1.6							58.1
Bulgaria	-[a]	28.1	-		14.5											57.4
Cyprus	-	-	-													100.0
Check Republic		10.8	19.5	12.9	16.3											40.5
Denmark		1.7	2.6			2.6										93.0
Estonia																100.0
Finland			3.1													96.9
France	22.7	2.1	3.4			1.4		10.0	14.9	14.8	9.7				9.7	11.2
Germany		7.0	15.9		19.7	12.4	21.3									23.7
Greece	18.6	6.5	9.6			-										65.2
Hungary		5.2	5.1	18.3	4.5	0.6		6.5								59.8
Ireland			4.5	17.6		2.2										75.7
Italy	6.4	2.3	2.5		2.3			4.1								82.4
Latvia																100.0
Lithuania																100.0
Luxembourg			-			1.2		3.7								95.0
Netherlands		3.7	4.9			7.9										83.5
Poland	7.0	12.3	5.3	9.4	3.0	0.6		6.2	3.5	2.9						49.8
Portugal	5.8	3.2	8.8			0.3		9.8		3.6						68.4
Romania	16.0	26.8	12.5		19.8			4.3	1.0							19.5
Slovakia		10.0	10.9	25.8	11.0											42.4
Slovenia			4.5			4.9				2.7						87.9
Spain	14.3	1.5	2.5			0.3		4.8		0.3						76.3
Sweden			1.7													98.3
UK		0.7	2.0	27.8		0.3						15.5	12.4	11.9		29.4

[a] The retailer is present in this country, but the market share is less than 0.1%.

Although consumers seem to have a sufficient choice of food retailers at the EU 27 level, **differences between individual member states in the number of food retailers occur**. Figure 130. compares the number of inhabitants **per food retailer** (product sales of the retailers included in the analysis consist for more than 50% of food products.), **per brand** and **per outlet** across the EU 27 Member States. Nine Member States have more than 1 million inhabitants per food retailer indicating less choice in food retailers. However, a food retailer can have different brands, which increases consumer choice. Out of these nine Member States with more than a million inhabitants per food retailer, five countries have more than a million inhabitants per brand (France, Germany, Italy, Romania and the UK).

Next to a choice in food retailer and brand, the number of retail outlets can give an indication of the level of consumer choice in locations to buy meat. The fewer inhabitants per outlet, the more choice an inhabitant has. All but two member states have less than 6,000 inhabitants per retail outlet. In Bulgaria (17,590 inhabitants per outlet) and in Romania (22,568) consumers have significantly less food retail outlets to choose from than consumers in the other member states. It should, however, be noted that these data only consider food retailers with more than 50% of their product sales as food products. The data do not include other distribution channels, such as butchers, night-shops, street markets, farm shops, door-to-door sales, and internet. In Romania consumers buy meat outside food retailers in 48.9% of the occasions (Ipsos, 2009), which can compensate for the low number of retail outlets in Romania. In Bulgaria, however, consumers buy meat outside the food retailers in only 20.9% of occasions. This suggests that the choice in retailers and channels to buy meat for consumers in Bulgaria might be lower than in other EU member states.

Figure 130. Number of inhabitants per food retailer, brand and outlet in the EU Member States in 2010

Number of inhabitants per food retailer, brand and outlet in the EU Member states in 2010

Country	Number of inhabitants[1]	Number of food retailers[2]	Number of brands[2]	Number of outlets[2]	Number of inhabitants /retailer	Number of inhabitants /brand	Number of inhabitants /outlet
Austria	8 375 290	11	25	5311	761 390	335 012	1577
Belgium	10 839 905	15	35	3999	722 660	309 712	2711
Bulgaria	7 563 710	12	15	430	630 309	504 247	17 590
Cyprus	803 147	8	11	153	100 393	73 013	5249
Czech Republic	10 506 813	10	25	5457	1 050 681	420 273	1925
Denmark	5 529 449	8	31	4616	691 181	178 369	1198
Estonia	1 340 127	6	20	435	223 355	67 006	3081
Finland	5 351 427	8	20	3482	668 928	267 571	1537
France	64 716 310	19	56	24 426	3 406 122	1 155 648	2649
Germany	81 802 257	28	75	40 753	2 921 509	1 090 697	2007
Greece	11 305 118	17	32	2010	665 007	353 285	5624
Hungary	10 014 324	12	26	10 121	834 527	385 166	989
Ireland	4 467 854	10	16	2371	446 785	279 241	1884
Italy	60 340 328	20	53	20 983	3 017 016	1 138 497	2876
Latvia	2 248 374	10	19	1478	224 837	118 335	1521
Lithuania	3 329 039	5	16	1093	665 808	208 065	3046
Luxembourg	502 066	6	15	95	83 678	33 471	5285
Malta[3]	414 372	-	-	-	-	-	-
Netherlands	16 574 989	18	33	5284	920 833	502 272	3137
Poland	38 167 329	26	42	14 059	1 467 974	908 746	2715
Portugal	10 637 713	16	28	2492	664 857	379 918	4269
Romania	21 462 186	12	19	951	1 788 516	1 129 589	22 568
Slovakia	5 424 925	8	12	2874	678 116	452 077	1888
Slovenia	2 046 976	9	16	1025	227 442	127 936	1997
Spain	45 989 016	41	87	20 600	1 121 683	528 609	2232
Sweden	9 340 682	6	28	4682	1 556 780	333 596	1995
UK	62 026 962	21	51	26561	2 953 665	1 216 215	2335

[1]Eurostat. [2]Retail-index.com, see appendix for detailed information about the companies, brands and number of outlets. [3]No data available for the number of retail companies, brands and outlets in Malta.

Figure 131. provides **the market shares and the outlet shares of the top three retailers in each member state**. In 10 of the 27 EU Member States, the market share of the top 3 food retailers is below 60%, and in 20 of the 27 EU member states it is below 80%. For seven Member States the market share of the top 3 food retailers is above 80% with a 3 member states having a share above 90% (Luxembourg, Cyprus and Sweden). Out of the 27 Member States, 18 have an outlet share below 80%, with six member states even an outlet share below 60%. In two member states (Luxembourg and Slovakia) the outlet share of the top 3 food retailers is above 90%. In most countries the top 3 food retailers in market share differs from the top three food retailers in outlet share. This can be explained by the fact that food retailers with a larger market share have larger outlets. Detailed information per member states about the market share and outlet share per food retailer is provided in annex VI.

Figure 131. Market and outlet share of the top 3 food retailers in each EU27 member state

Market and outlet share of the top 3 food retailers in each EU27 member state

Country	Market share of top 3 food retailers (%)[1]		Outlet share of top 3 food retailers (%)[1]	
	Total	*Food retailer (market share)*	*Total*	*Food retailer (outlet share)*
Austria	80.5	Rewe (36.4)	85.0	Rewe (48.5)
		Spar (26.5)		Spar (28.3)
		Aldi Süd/Hofer (17.6)		Aldi Süd/Hofer (8.2)
Belgium	62.2	Colruyt (23.0)	52.8	Delhaize Group (20.1)
		Delhaize Group (20.1)		Carrefour (17.2)
		Carrefour (19.0)		Louis Delhaize (15.5)
Bulgaria	61.5	Metro C&C (29.0)	72.8	CBA (38.1)
		Kaufland (17.5)		Rewe (26.3)
		Rewe (15.0)		Maxima (8.4)
Cyprus	92.5	Ermes Department Store (64.5)	76.5	Ermes Department Store (37.3)
		Papaellinas (15.0)		E&S (20.3)
		Papantoniou (13.1)		Orphanides (19.0)
Czech Republic	52.0	Lidl /Kaufland (19.5)	82.5	Coop (55.0)
		Rewe (16.3)		BALA (18.3)
		Ahold (16.2)		Rewe (9.2)
Denmark	82.3	Dansk Supermarked Group (35.6)	68.5	Coop (31.5)
		Coop(31.8)		Dagrofa (21.7)
		Dagrofa (14.9)		Reitangruppen (15.4)
Estonia	78.3	Stockmann (52.9)	84.4	ETK (53.1)
		ETK (13.6)		Rimi (18.9)
		Kaubamaja (11.8)		Maxima (12.4)
Finland	83.8	Kesko Oyj (42.1)	75.6	Kesko Oyj (29.6)
		SOK (35.2)		SOK (24.6)
		Tradeka (6.5)		Tradeka (21.4)
France	52.4	Carrefour (22.7)	67.3	Casino (38.4)
		ITM (14.9)		Francap (16.4)
		Leclerc (14.8)		ITM (12.5)
Germany	57.0	Edeka (21.3)	66.8	Edeka (29.0)
		Rewe (19.7)		Rewe (26.7)
		Lidl (15.6)		Tengelmann (11.1)
Greece	44.8	Carrefour (18.6)	44.2	Carrefour (21.5)
		Delhaize (15.0)		Delhaize (10.7)
		J.S. Sklavenitis (11.1)		Spar (11.9)
Hungary	49.2	Tesco (18.5)	87.6	Coop (49.4)
		CBA (16.3)		CBA (33.2)
		Coop (14.4)		Real Elelmiszar (5.0)
Ireland	73.3	Musgrave (29.5)	71.9	Musgrave (36.4)
		Dunnes (26.2)		Spar (19.8)
		Tesco (17.6)		ADM Londis (15.6)
Italy	38.3	Coop (15.6)	40.9	Crai (14.3)
		Conad (12.3)		Conad (13.9)
		Selex (10.5)		Interdis (12.6)
Latvia	75.9	Maxima (39.1)	74.5	LaTS (34.4)

		Mego / Vesko (23.5)		AIBE (30.3)
		ELVI (13.2)		Mego / Vesko (9.8)
Lithuania	85.5	Maxima (42.7)	84.6	AIBE (45.3)
		Norfa (23.3)		IKI (19.8)
		IKI (19.6)		Maxima (19.6)
Luxembourg	98.8	Louis Delhaize (81.8)	93.7	Louis Delhaize (42.1)
		Cactus (13.3)		Cactus (38.9)
		Auchan (3.7)		Aldi (12.6)
Malta[2]				
Netherlands	52.3	Albert Heijn (30.0)	52.8	Sligro (29.4)
		Schuitema (11.9)		Albert Heijn (14.4)
		Jumbo (10.4)		Aldi (9.1)
Poland	35.5	Jeronimo Martins (13.8)	61.1	Emperia Holding (26.8)
		Makro C&C (Metro) (12.3)		Lewiatan (18.7)
		Tesco (9.4)		Zabka (15.6)
Portugal	62.6	Jeronimo Martins (24.2)	62.6	GCT (28.9)
		Modelo Continente (22.3)		Carrefour (17.8)
		Os Mosqueteiros (16.1)		Jeronimo Martins (15.9)
Romania	63.7	Metro C&C (27.3)	65.4	CBA (38.5)
		Rewe (20.2)		Rewe (16.8)
		Carrefour (16.3)		Plus Discount (10.1)
Slovakia	65.5	Coop (28.2)	93.2	Coop (79.7)
		Tesco (26.1)		CBA (9.7)
		Rewe (11.1)		Rewe (3.8)
Slovenia	78.2	Mercator (44.1)	81.6	Mercator (51.1)
		Spar (17.1)		EngroTUŠ (22.6)
		EngroTUŠ (17.0)		Spar (7.8)
Spain	50.4	El Corte Inglés (18.7)	38.3	DIA (13.7)
		Mercadona (17.4)		Covirán (13.2)
		Carrefour (14.3)		Eroski (11.5)
Sweden	90.9	ICA (51.7)	86.2	ICA (47.0)
		Axfood (20.9)		Coop (24.2)
		Coop (18.3)		Axfood (15.0)
UK	55.6	Tesco (27.8)	42.1	Nisa (18.8)
		Sainsbury (15.5)		Spar (12.0)
		Asda (12.4)		Co-op (11.3)

[1] Retail-index.com, see appendix for detailed information about the companies, brands and number of outlets. [2] No data available for the number of retail companies, brands and outlets in Malta.

13 PRODUCT DIFFERENTIATION

CHAPTER SUMMARY – PRODUCT DIFFERENTIATION

Main findings

- Large **variations in availability of products** were observed in the mystery shopping audit **across countries, types of meat and purchase channels**. The four product categories assessed, whole chicken, minced beef, pork cutlets and pork sausages, were widely available, but the range of products within each category was limited.
- The consumer survey results show that **satisfaction is lower with the availability of ethical products**. This seems to reflect the actual availability of meat types as animal welfare, environment/climate and religious slaughter certified meat products were the least available overall.
- **Supermarket and hypermarkets have a better choice of specific meat types** (e.g. organic, animal welfare certified) than butchers shops and small retailers. For instance, origin certified meat is more available in discount stores and hypermarkets, and organic meat in supermarkets and hypermarkets.
- Imported meat represents a very small share of the market when compared with the EU meat production. The share is higher for sheep, goat and other meats, although the volume of imports in these categories is still small in absolute terms.

Consumers have access to a wide range of products, but the availability of ethical products varies and is an area for improvement.

Research questions

Do consumers have a sufficient choice of products on the meat market as a whole, including non-regular products such as those marketed as sustainable, or as 'quality guaranteed' or as 'dietary'? Do consumers throughout the single market have the same access to the same level of choice of products? Do consumers have sufficient access to meat originating from outside the EU?

This chapter looks into the products available to consumers in the meat market. After looking at availability in general, we will address product differentiation and the availability of different product types, including imported meat.

13.1 Availability of meat in general

As stated in the previous chapter, the availability of meat in the EU is not an issue at a macro level. We will now look into the availability of meat at consumer level.

In 2009, 69% of consumers stated that the products they wanted were available and only 3% disagreed (Ipsos, 2009). This means that a **majority of EU consumers tend to perceive that the choice of meat and meat products in the market is sufficient**. Similarly, 58% of consumers were satisfied (score 8 to 10 out of 10) with the availability of meat in general in the 2011 consumer survey.

In the 2009 survey (Ipsos,2009), consumers in the EU12 countries (71%) were slightly more likely to agree that the products they wanted were available than consumers in the EU15 countries (68%). This is also the case in the 2011 survey: 64% of EU12 consumers are satisfied with the availability of meat in general, compared with 56% in the EU15.

13.2 Product differentiation

Consumer preferences for meat changed in the 1990s (Verbeke et al., 2010). One major trend is the **increased interest in 'ethical' meat types**, such as animal welfare (University of Exeter, 2010) or organic (Brennan, 2003) meat. The market responded to these new demands by introducing certifications and other schemes (University of Exeter, 2010).

Consumers are increasingly concerned by issues such as global warming and sustainability, which is driving consumer support for 'environmentally-friendly' products and practices (Harris, 2007). Besides, increased consumer information about production methods can provide opportunities for product differentiation to traditional, extensive farms (Napolitano et al. 2010). However, product differentiation is not always enough to attract consumer interest. For example, many consumers believe that animal welfare should be regulated in the meat chain in general rather than signalled at the point of sale (University of Exeter, 2010).

Besides, research by Grunert (public presentation, January 26, 2012) shows that food producers launch new, innovative products regularly, but consumers may or may not accept them based on different criteria. **The current trend is towards production methods seen as authentic and responsible** (e.g. sustainable, healthy). As a result, the proportion of food products, including meat, marketed as ethical, natural or organic has significantly increased in the past few years. However, consumer acceptance of these new products cannot be taken for granted. Three elements need to be present for consumer acceptance of a new product: perceived quality, confirmation of expectations and a competitive difference.

When it comes to consumer perception of the current choice of meat of different qualities, in 2009 two-thirds (65%) of EU consumers agreed that their retailer offered a wide enough choice. This is above the worst scoring market for this question, fresh fruits and vegetables (61%), but below the best scoring market, other household electrical equipment (71%). Consumers residing in the EU12 countries were considerably more likely to consider the choice of qualities to be sufficient (72%) than consumers in the EU15 countries (63%). Some of the national stakeholders mentioned that older Eastern European consumers grew up with a more limited choice of meats and may have different expectations of product choice. Consumers in Sweden (12%) and Denmark (16%) express the highest levels of disagreement in this respect.

Looking at specific types of products, the perceived level of choice is lower both for environment-friendly products (57%, compared with 49% for the lowest scoring market and 59% for the highest scoring markets) and meat that has been produced according to specific ethical standards (53%, the highest percentage for this question, compared with 46% for the lowest scoring market), although the levels of agreement remain relatively high. In comparison, respondents to the 2011 consumer survey were less likely to be satisfied when asked about the availability of different meat types. **24% were satisfied (score 8 to 10 out of 10) with the availability of organic meat, 20% with the availability of animal welfare certified meat and 18% with the availability of environment or climate certified meat**.

Again, respondents of the 2009 survey residing in the EU12 countries are more satisfied with the choice of both environment-friendly meat (63% vs. 55%) and ethically produced meat (58% vs. 52%) than consumers in the EU15 countries. An opposite pattern can be seen in the 2011 consumer survey: 16% of EU12 consumers are satisfied with the availability of organic meat (compared with 27% in the EU15). This figure is 14% for animal welfare certified meat (compared with 22% in the EU15) and 12% for environment or climate certified meat (compared with 20% in the EU15).

13.3 Availability of specific meat types in the mystery shopping audit

The mystery shopping exercise revealed **large variations in the availability of specific types of meat and meat products, both across countries and types**, namely origin certified, organic, animal welfare certified and environment/climate change certified. Mystery shopping auditors had to audit three products per visit: a regular one and two specific types, with a priority on organic and origin certified meat. Where they assessed fewer products, there was not sufficient availability of different product types. This has an impact on the structure of the data in terms of number of products assessed for each type presented in Figure 132..

However, the fact that only limited proportions of origin certified and organic products were assessed indicates that these products are not as widely available as could be expected. Besides, the very low shares of other types (e.g. animal welfare certified) are also an indication of limited availability.

Figure 132. Number of products assessed per meat type

EU27 TOTAL	10570	100%
Regular	5524	52%
Origin certified	2951	28%
Organic	1282	12%
Animal welfare certified	490	5%
Other (e.g. health claims)	154	1%
Environment/climate certified	107	1%
Religious slaughter (e.g. halal, kosher)	62	1%

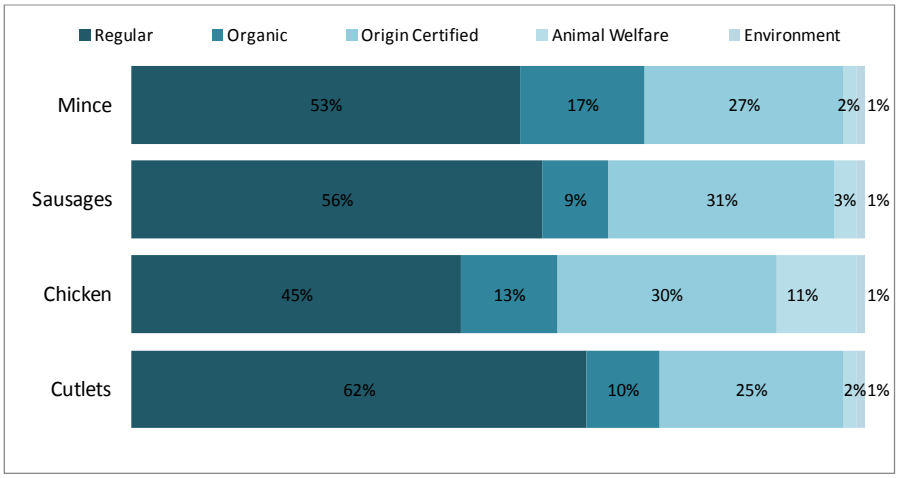
Figure 133. shows the breakdown of products assessed by mystery shoppers, by country and meat type. As mentioned above, **the fact that some product types are underrepresented in the table indicates that they were less widely available than other products**. In particular, meat with animal welfare certifications, environment/climate certified meat and meat slaughtered according to religious standards were more difficult to find in a number of Member States.

Figure 133. Number of products assessed in the mystery shopping exercise by country and meat type

Country	Animal welfare certified	Environment/climate certified	Organic	Origin certified	Other	Regular	Religious slaughter	Grand Total
Austria	1		66	35		195	2	299
Belgium	21	6	60	149	7	204	3	450
Bulgaria			2	64		244		310
Cyprus						193		193
Czech Republic			24	15		219		258
Denmark	19		107	108		235	2	471
Estonia				189		149		338
Finland	11	2	69	125		179		386
France	33		73	208	7	304	17	642
Germany	1	1	65	288	10	141	1	507
Greece	28	1	37	209		172		447
Hungary	15	7	10	90	3	164		289
Ireland	36	6	70	329	22	117		580
Italy	26	5	124	129	3	171	6	464
Latvia			2	14		243		259
Lithuania			2			259		261
Luxembourg	13	1	49	55		128	1	247
Malta			5	64	3	213	1	286
Netherlands	58	7	138	47	4	215	4	473
Poland		1	8	10		184		203
Portugal	20	1	53	72	1	266	5	418
Romania	14	10	30	52	4	233	1	344
Slovakia	12	2	5	113	6	178		316
Slovenia	2		17	76	25	257		377
Spain	48	2	8	36	27	279	8	408
Sweden	28	49	88	119	1	177	4	466
UK	104	6	170	355	31	205	7	878
Grand Total	**490**	**107**	**1282**	**2951**	**154**	**5524**	**62**	**10570**

Availability varies in terms of choice of specific products by meat category (Figure 134.). **More organic products were found in the minced beef and chicken categories than others. More origin certified products were assessed in the pork sausages and whole chicken categories, while the highest proportion of animal welfare certified meat was found in the whole chicken category. Whole chickens had the lowest proportion of regular meat, with a wider range of meat types available**. The choice of specific type of meat by meat category for each Member State can be found in annex IV.

Figure 134. Share of meat types by meat category



Looking into the specific types of products available by purchase channel, **supermarkets and hypermarkets have the widest choice of specific types of products across the EU**. 58% of EU consumers say they use a hypermarket or supermarket as their main retailer and choice is one of the factors mentioned by consumers when asked why they currently use their main retailer. However, it is important to note that other factors, such as prices and convenience, also play a role in the choice of retailer.

As can be seen on Figures 135.to 138., the share of regular products is higher for products assessed in markets/farms, butchers and convenience stores than for products assessed in hypermarkets and supermarkets. The implication is that smaller outlets are likely to sell all meat categories assessed in the survey (e.g. minced beef or whole chickens), but are less likely to sell specific meat types (e.g. organic). They therefore offer a narrower choice of meat products within each category.

Figure 135. Minced Beef – type of product assessed by retail channel

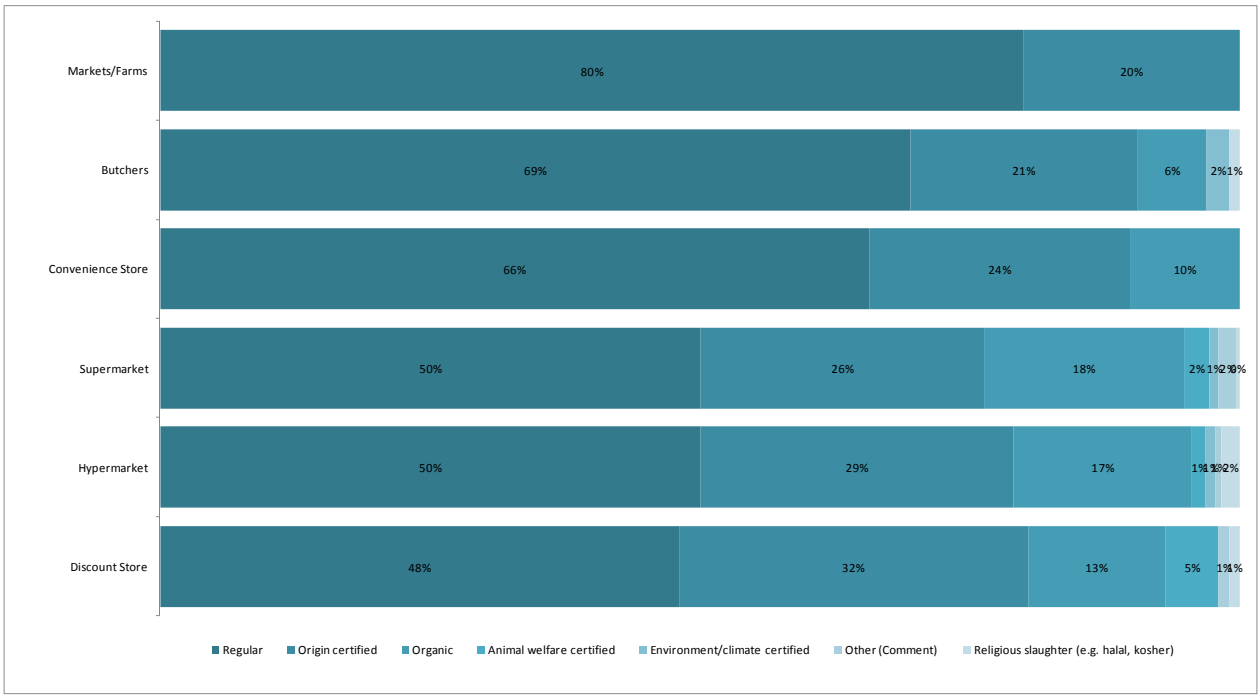


Figure 136. Pork Sausages – type of product assessed by retail channel

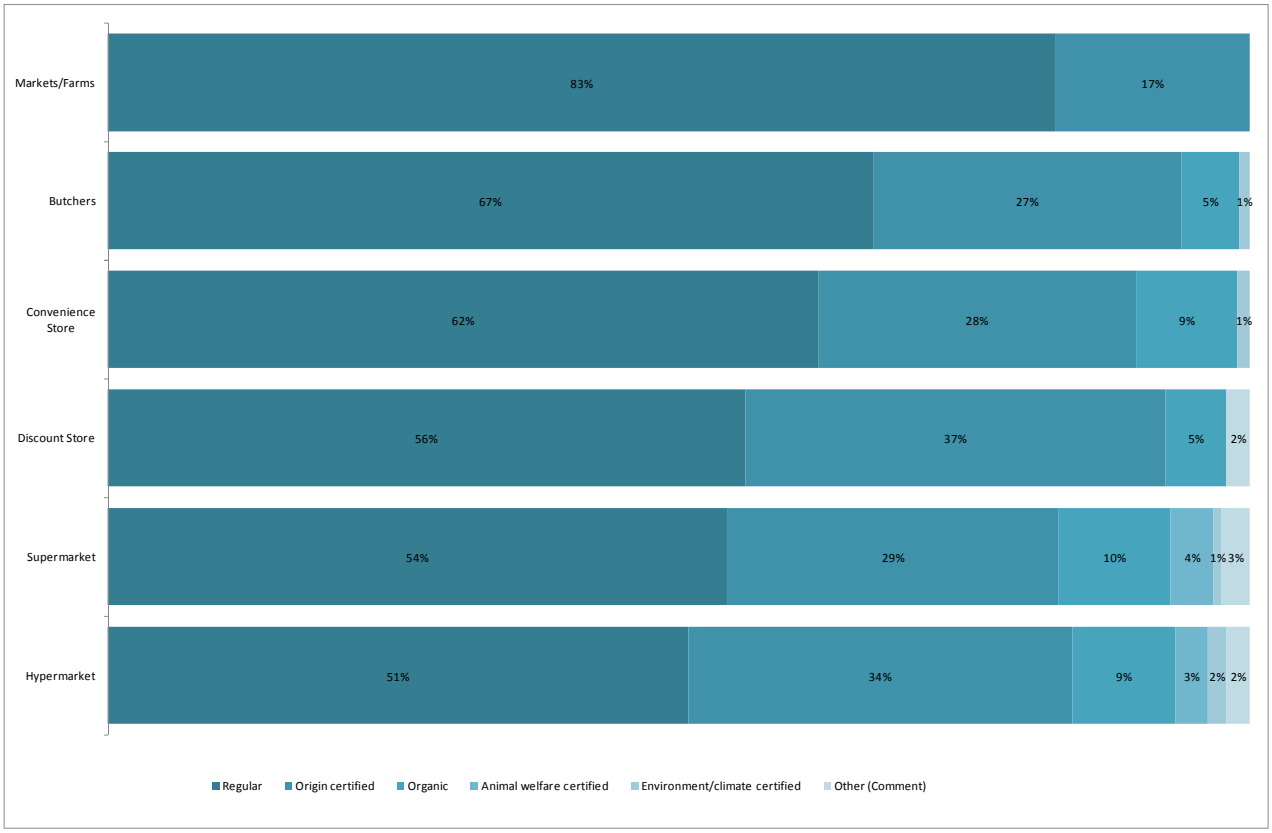


Figure 137. Whole chicken – type of product assessed by retail channel

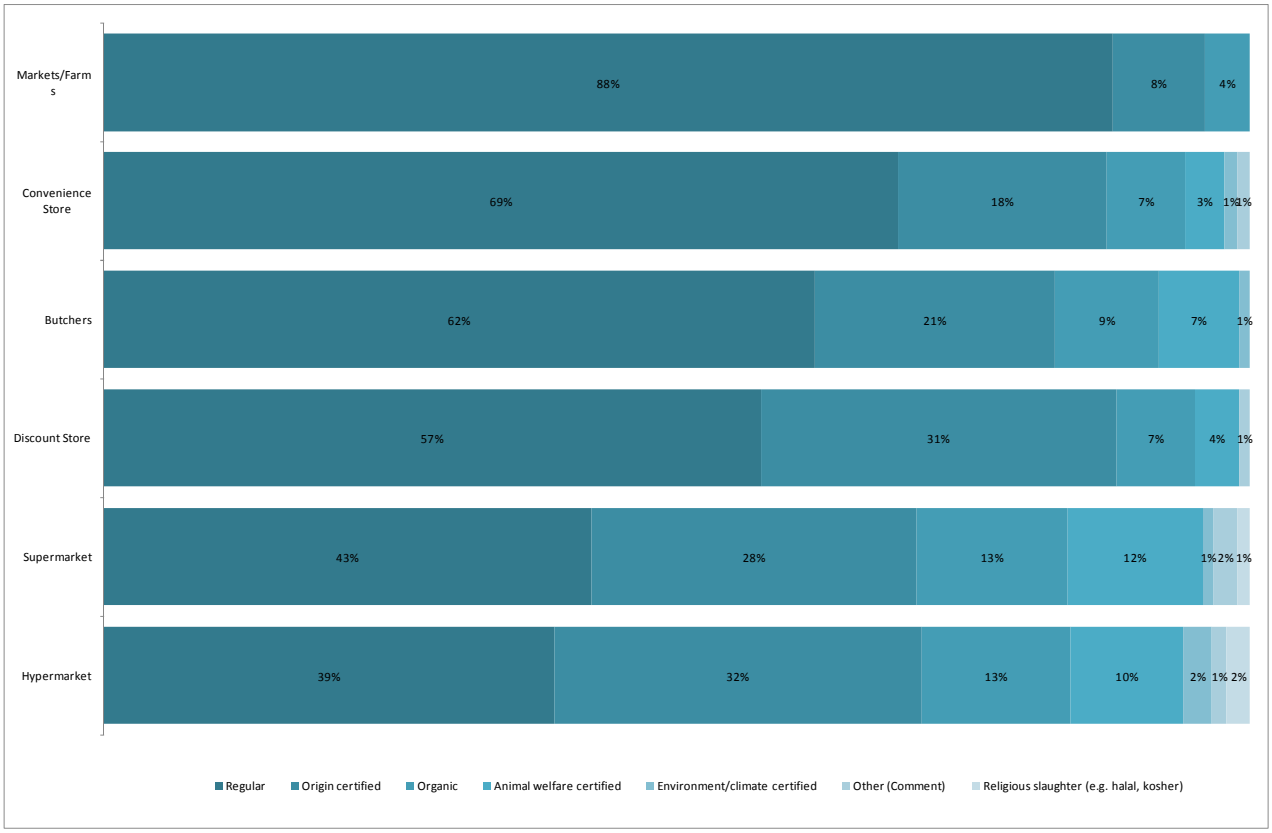
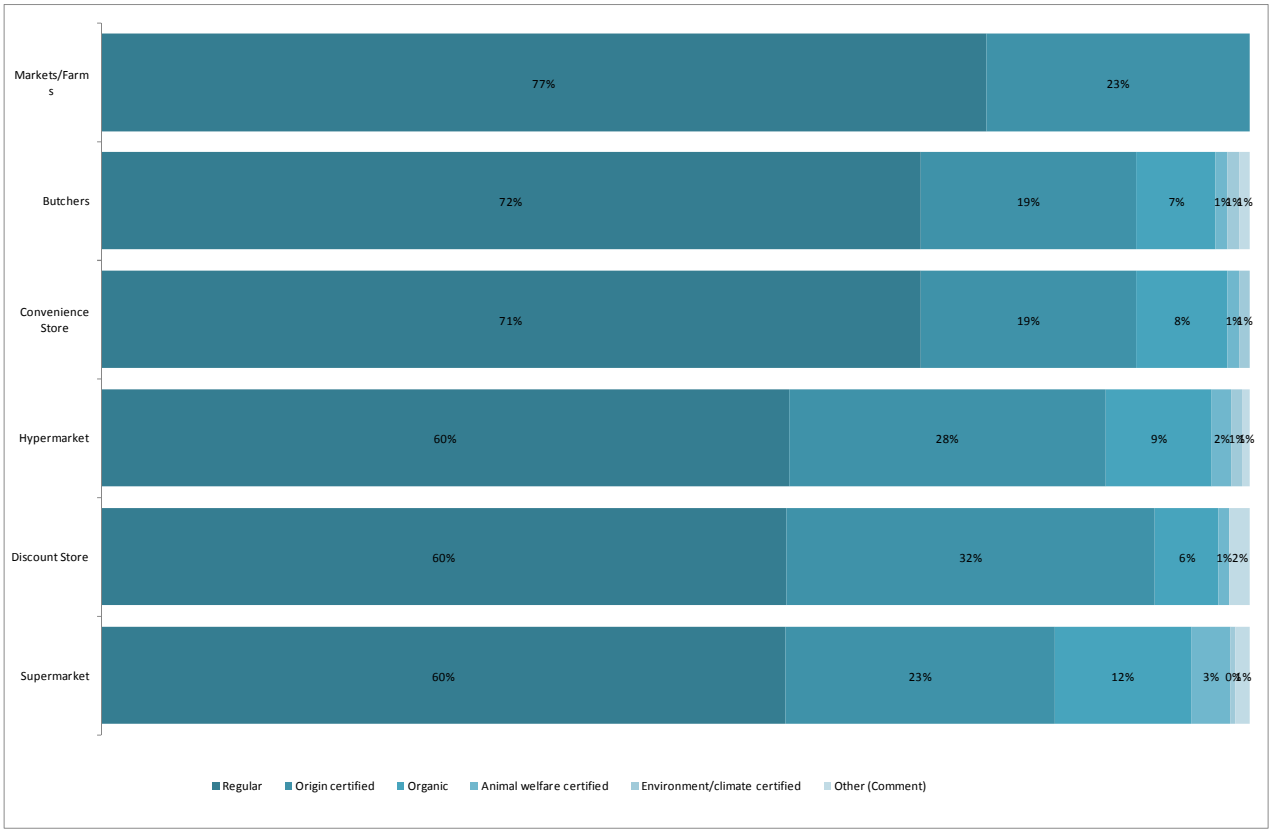


Figure 138. Pork Cutlets – type of product assessed by retail channel



Origin certified meat was the most readily available in discount stores and hypermarkets. The highest numbers of evaluations of organic meat were made in supermarkets and hypermarkets. The choice of animal welfare certified chicken was the highest in supermarkets, hypermarkets and butchers.

13.4 Choice of meat originating from outside the EU

To assess whether consumers have sufficient access to meat originating from outside the EU, we analyse **the import amounts of different meat categories and compare that to the EU's own meat production**. As a measure for the EU's own meat production we used the amount of slaughter weight produced. Data was retrieved from Eurostat. We used descriptive statistics to analyse the data. Results show **that the share of imports in total production of bovine meat, pig meat and poultry meat is low, but share of imports of sheep and goat meat and other meats is high**. This is because **sheep, goat and other meats are only produced in low amounts in the EU**. This suggests that the access to non-EU beef, pork and poultry meat is relatively low, but high for sheep/goat meat and other meat. Even if non-EU meat represents a larger share of these markets, the actual volume of imported meat may remain limited.

Bovine meat, pig meat and poultry meat is hardly imported from outside the EU. Figure 139. presents per EU member state the percentage of imported meat per meat category, based on carcass production. Figure Y provides carcass production per EU member state. On average for bovine meat, pig meat and poultry meat 2.96%, 0.21% and 1.75% of the EU 27's own production is imported in the EU 27. Only Cyprus (17.56%), Malta (15.98%) and the Netherlands (12.56%) have a relatively high import of beef from outside the EU. The UK has the highest import of pig meat from outside the EU, but this is only 0.92% of own production. Romania imports 10.16% of poultry meat from outside the EU. Sheep and goat meat and other meat show a different picture. Sheep and goat meat is imported at large scale from outside the EU in some countries, measuring up to 40 times own production for Malta and 20 times for Belgium. Other countries such as Estonia, Hungary, Ireland, Latvia, Lithuania, Luxembourg and Slovakia, have hardly any import at all. For the EU as a whole, imports are about 25% of own production. Other meat shows a similar picture as sheep and goat meat, with huge differences in import between countries ranging from no import to almost 50 times own production. One should, however, consider that the own production of sheep, goat and other meat in these countries and in the EU-27 is low compared to the own production of bovine, pig and poultry meat (Figures 140. and 141.). Therefore absolute import amounts are also low for these types of meat, which explains the high percentages displayed in Figure 139.

Figure 139. Percentage import of meat from outside the EU relative to own carcass production (average 2007-2010)

	Percentage import of meat from outside the EU relative to own carcass production (average 2007-2010)				
Country	**Bovine meat**	**Pig meat**	**Poultry meat**	**Sheep and goat meat**	**Other meat**
Austria	0.01	0.02	0.13	1.04	1,234.00
Belgium	0.68	0.05	0.48	1,653.90	4,826.77
Bulgaria	1.65	0.06	6.11	4.17	0.00
Cyprus	17.56	0.00	6.74	17.77	0.00
Czech Republic	0.11	0.00	1.61	3.04	308.26
Denmark	2.02	0.06	0.30	126.96	0.00
Estonia	1.28	0.02	0.00	0.00	0.00
Finland	1.20	0.01	0.01	93.57	16.43
France	0.33	0.15	0.30	18.71	9.77
Germany	4.13	0.38	1.70	95.14	29.32
Greece	4.07	0.05	0.84	6.97	16.22
Hungary	0.00	0.00	0.41	0.00	0.00
Ireland	0.64	0.68	0.65	0.27	0.00
Italy	4.17	0.42	0.41	13.67	12.56
Latvia	0.05	0.00	0.02	3.24	n.a. [a]
Lithuania	0.08	0.06	0.02	0.00	0.00
Luxembourg	4.13	0.00	0.00	0.00	n.a.
Malta	15.98	0.00	7.79	1,532.33	n.a.
Netherlands	12.56	0.16	8.57	59.29	123.44
Poland	0.01	0.03	0.00	12.19	0.00
Portugal	3.80	0.00	0.37	28.02	6.29
Romania	0.02	0.05	10.16	0.72	n.a.
Slovakia	0.00	0.00	1.16	0.00	n.a.
Slovenia	2.82	0.03	0.31	6.11	n.a.
Spain	3.30	0.04	2.55	5.23	0.17
Sweden	3.03	0.09	0.14	70.12	47.64
UK	4.96	0.92	1.60	36.40	n.a.
EU-27	2.96	0.21	1.75	25.27	22.49

Source: Eurostat. [a] n.a. = not available.

Figure 140. Average own production 2007-2010 (1,000 tonnes carcass weight) for bovine, pig, poultry, sheep and goat, and other meat.

	Average own production 2007-2010 (1,000 tonnes carcass weight)				
Country	Bovine meat	Pig meat	Poultry meat	Sheep and goat meat	Other meat
Austria	220	533	110	8	0
Belgium	265	1,081	487	2	0
Bulgaria	13	56	101	13	1
Cyprus	4	57	28	6	n.a.
Czech Republic	78	314	202	1	0
Denmark	129	1,690	175	2	0
Estonia	12	35	14	0	0
Finland	84	210	97	1	1
France	1,509	2,143	1,701	106	28
Germany	1,190	5,199	1,234	31	37
Greece	57	118	172	109	0
Hungary	31	441	371	1	14
Ireland	548	204	119	57	3
Italy	1,079	1,608	1,117	50	8
Latvia	20	32	23	0	0
Lithuania	48	68	69	0	5
Luxembourg	9	10	0	0	0
Malta	1	8	5	0	0
Netherlands	389	1,293	760	16	4
Poland	379	1,832	1,235	1	58
Portugal	99	376	286	12	1
Romania	114	351	238	36	0
Slovakia	18	89	74	1	0
Slovenia	36	28	60	0	0
Spain	624	3,404	1,341	160	77
Sweden	140	265	114	5	4
UK	880	743	1,480	309	0
EU-27	7,977	22,188	11,364	924	169

Source: Eurostat. n.a. = not available

Figure 141. EU27 meat import and total production (in tonnes)

EU27 meat import and total production (in tonnes, average 2007-2010)					
	Bovine meat	Pig meat	Poultry meat	Sheep and goat meat	Other meat
Import	236,398	46,137	199,368	233,653	38,118
Production	7,976,583	22,188,291	11,364,443	924,459	169,456

Source: Eurostat.

14 CONSUMER PRICES

CHAPTER SUMMARY – CONSUMER PRICES

Main findings

- Based on the mystery shopping audit, the average price of meat is €6.20 per kilogram overall. The average price is €7.07 for the EU15 countries and €4.48 for the EU12 countries. Minced beef is the most expensive with €7.24 per kilogram, compared with €4.40 per kilogram for whole chickens. The average price for pork cutlet is €7.06/kg and for pork sausages €6.39/kg.
- The average price for all regular products assessed is €5,40/kg. Organic meat is 66,1%, animal welfare certified 19,8% and origin certified 19,3% more expensive than regular meat.
- High price can be a barrier to the growth of the specific meat type market. It is the main reason mentioned by consumers for not buying specific types of meat more often. Other important obstacles are an insufficient provision of information and a lack of trust in information sources.
- Three country groupings were identified in terms of price levels:
  - ⇨ **High price levels**: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Sweden and the UK
  - ⇨ **Medium price levels**: Cyprus, Greece, Malta, Portugal and Spain
  - ⇨ **Low price levels**: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia
- The meat price divergence is in line with the comparative consumer price levels and is not related to retail concentration.
- The introduction of intermediary products (in terms of positioning and price) does not necessarily affect the market share of organic products.

Meat prices converge within three country groupings. Consumers are fairly dissatisfied with meat prices although the issue seems more salient for ethical products, where price levels seem to have an impact on the willingness to purchase.

Research questions

Is the single market functioning in terms of delivering price convergence for comparable meat products for all Member States? What is the explanation for any price divergence? What is the relationship between average prices of regular products and products marketed as sustainable, animal welfare friendly or quality guaranteed? What impact do meat price levels have on consumer understanding and general attitudes towards meat as well as consumer purchase? Do consumers believe the market delivers good value of money? Can consumers afford to buy meat in the quantity and of the quality they want?

This chapter focusses on meat consumer prices in the EU. After analysing the degree of convergence of price levels in different Member States, we will look at actual prices, including the relative prices of specific meat types. Finally, the affordability of meat and the impact of price levels on consumers will be addressed.

14.1 Price convergence for comparable meat products in the EU

To assess whether the single EU market is delivering price convergence for comparable meat products we analyse the evolution of consumer price levels of meat in Europe by combining time-series information on harmonized indices of consumer prices (HICPs) with observations of relative price level indices (PLI). We compare this evolution of price levels of meat between neighbouring EU countries. Data were retrieved from Eurostat. Results show **that three groups of countries in the EU can be distinguished regarding the level of the meat price**. In spite of these price level dispersions the average meat price levels of the EU countries that do not exhibit any convergence towards price parity at all.

Prices of food products in the EU member states are expected to converge if all other economic conditions, like productivity and inflation, are also being equalised. Considering the price levels of one good in two EU countries, two stages of convergence exist. In the first stage the price of at least one of the two countries should follow a 'path of convergence' which is also known as 'catching-up convergence'. According to this path the stochastic trend in at least one of the prices converges to a common stochastic trend in both prices. In the second stage, also called 'steady-state or stochastic convergence', the prices have already been converged and hence, at least one of the two prices exhibits error-correcting behaviour, probably conform a band-threshold error-correction model (e.g. Lo and Zivot, 2001). This model, however, in spite of allowing for nonlinear adjustment and, within certain limits, nonstationary equilibrium errors, is not capable of capturing the first stage of convergence without a kind of intervention correction in the sense of Box and Tiao (1975), see, for example, García-Hiernaux and Guerrero (2011). And such an intervention analysis requires a starting point, i.e., a structural break where the catching-up process to price parity starts. Identification of structural breaks can be difficult and is even impossible if the starting point takes place before sample data are collected. Moreover, not all structural breaks represent the start of a catching-up convergence process.

Granger (2008) suggested that any nonlinear model can be approximated by a time-varying parameter linear model, a relatively new approach to model economic change that avoids the need of specifying the exact timing and interpretation of structural breaks. Our application of the time-varying cointegration approach follows Le Pen (2005) in computing a confidence band regarding the time varying coefficients suggesting convergence if the interval contains (eventually after extrapolation) the Law of One Price (LOP) cointegrating vector [-1, 1]. Basically, we divide the meat price level of country A by the meat price level of country B. If both countries would have a similar price level, this would then result in a factor of 1. Around this factor of 1, we can draw a confidence interval. If the price level division lies within this confidence interval, the division factor does not significantly differ from 1. This means that the average meat price level of country A does not significantly differ from the average price level of country B and convergence between the two countries in meat price level exists.

14.1.1 Method and data

We study the evolution of consumer price levels of meat in Europe by combining time-series information on harmonized indices of consumer prices (HICPs) with observations of relative price level indices (PLI). The HICP covers prices that are actually faced by consumers, so for example they include product taxes such as VAT and take into account price reductions in end-of-season sales. It, however, excludes interest and credit charges, since these are financing costs rather than consumption expenditure.

For most of the 27 EU member states monthly HICP series of meat begin in January 1996 (Eurostat, prc_hicp_midx, the Harmonized Indices of Consumer Prices, COICOP CP0112 Meat) and are presented together on a common reference year: 2005 = 100. We excluded Slovenia from the analysis because the HICP just started in January 2010. For 2005 PLI is available for all member states (Eurostat, food_pd_prc1, the relative price level indices of food products, fooditem F_0112 Meat - Total), which provide a comparison of countries' price levels with respect to the EU average (EU27 = 100): if the PLI is higher than 100, the country concerned is relatively expensive compared to the EU average and vice versa. PLI is calculated by dividing the PPP (Purchasing Power Parity, i.e. how many currency units costs a given quantity of meat in a country) by the exchange rate, in relation to the EU average. In order to convert the HICPs of meat into estimates of cross-country comparable price levels of meat we take the product of the HICP of meat and the PLI of meat. To note, both time series concern all types of meat.

Thus, the cross-country comparable price level $P_{k,t}P_{k,t}$, for meat in country kk in time tt is calculated as

$$P_{k,t} = HICP_{k,t} \times PLI_{k,2005}$$

where $HICP_{k,t}HICP_{k,t}$ is the HICP for meat in country kk in time tt and $PLI_{k,2005}PLI_{k,2005}$ is the relative PLI (EU27 = 100) for meat in country kk in 2005. The sample considered in our study covers the period January 1996 up to and including June 2011. The $P_{k,t}P_{k,t}$ of country kk is compared with the $P_{l,t}P_{l,t}$ of country ll if country ll is a neighbour of country kk.

14.1.2 Groups of countries according to price levels

We compute the time-varying cointegrating coefficient for pairs of neighbouring countries. In the Figures B.1-B.45 in annex VIII, this coefficient is indicated as *BETA_k_l* representing the coefficient of $P_{l,t}$ $P_{l,t}$ in the price level relationship

$$P_{k,t}P_{k,t} = BETA_k_l \cdot Pl,t \times P_{l,t}$$

Country kk is more expensive (cheaper) than country ll if *BETA_k_l* is greater (smaller) than one. If *BETA_k_l* lies within the 95% confidence interval, we conclude that it is not significantly different from one so that both countries share the same price level and hence, exhibit steady-state price convergence or are in the final stage of catching-up convergence.

The results are displayed in Figures B.1- B.41 in annex VIII. The graphs present the division factor resulting from dividing the meat price level of country A by the meat price level of country B on the vertical axis and the time on the horizontal axis. The closer the meat price levels of two countries are, the closer the division factor is to the factor of 1. Around this factor of 1, we drew a confidence interval. If convergence in meat price levels between two countries occurs in time, the division factor shows a trend towards the factor of 1 and the division factor ends up within this confidence interval. If the division factor is within the confidence interval, the division factor does not significantly differ from 1. This means that the average meat price level of country A does not significantly differ from the average price level of country B and convergence between the two countries in meat price level has occurred.

From the graphs, **the first group with more or less the same meat price level that can be observed consists of Germany, Belgium, Luxembourg, France, Italy, Austria, the Netherlands, the UK , Ireland and the Nordic countries Denmark, Sweden and Finland** (Figures B.1-B.3, B.13-B.15, B.18, B.22, B.23, B.32 and B.42- B.45 in annex VIII). These are also the countries with the highest GDPs per capita in the EU (≥ 30.000 euro). The Netherlands with a GDP per head of 35,000 euro also belongs to this group, although it has a lower meat price level (Figures B.4, B.6 and B.7 in annex VIII). This result can be understood by the prominent position of the Netherlands as a net exporter of pork and poultry as well as the relatively low feed prices due to the fact that it has two main ports in Rotterdam and Amsterdam for the import of raw materials for the compound feed industry from outside the EU. In contrast, starting in 2008 the meat price level in the United Kingdom has risen from an insignificant 4% higher price level than in France to a significant 20% higher price level in 2011 (Figure B.16 in annex VIII). This rise complies with the higher general food price inflation in the UK compared to the EU and other OECD countries. Compared to the UK, Ireland has gone from an equally high price level up to 2008 to a significant 20% lower level in 2011 (Figure B.8 in annex VIII). Comparing the Irish meat price level with those in France, Germany, Belgium and the Netherlands (Figures B.9-B.12 in annex VIII) clearly shows that the meat price in Ireland has fallen sharply in the last few years. In fact, the HICP for meat in Ireland reached its highest level of 108.4 in 2008 (2005 = 100) which was among the highest meat price levels in the EU27. After 2008 it decreased by 3.4% to the index value of 104.7 in 2009 to further decline by 6.4% compared with 2009 to a level of 98.0 in 2010, making up a total decrease from 2008 to 2010 of 9.6%. By 2011 it has reached a price level that is just significantly lower than in Germany (Figure B.10 in annex VIII). This decrease might be driven by the economic downturn in Ireland since the credit crisis.

Another group of countries with mutually similar price levels that are, however, significantly lower than the price level of the first group, is formed by the Southern EU countries Spain, Portugal, Malta, Greece and Cyprus (Figures B.19, B.25 and B.26 in annex VIII, and according to Figure B.21 Malta even has a slightly lower price level). For example, the price level in Spain is more than 30% lower than in France (Figure B.17 in annex VIII). The lower price level is remarkable since both groups contain Eurozone countries, but may have to do with the fact that these countries have a lower GDP per capita (15,000-20,000 euro) than in countries of the first cluster.

A clearly much lower GDP per capita (5,000-10,000 euro) can be found in **the Eastern European countries which also face even lower meat prices than the Southern European countries**: the meat price level in Bulgaria is up to 45% lower than in Greece (Figure B.27 in annex VIII). Nevertheless, the Bulgarian price level is also the lowest in the EU, followed by the 15% higher meat price level in Romania (Figure B.28 in annex VIII) which, in its turn, is comparable to the price levels in Slovakia, Czech Republic and Poland (Figures B.34-B.36 in annex VIII). Although Hungary has a significantly higher price level than

these Eastern EU countries (Figures B.29 and B.31 in annex VIII), it is still significantly lower than the level of the Germany group (Figure B.30 in annex VIII). This also applies for the Baltic countries Lithuania, Latvia and Estonia (Figure B.41 in annex VIII), where the price level in Lithuania is significantly lower than in the price level parity countries Latvia and Estonia (Figures B.38- B.40 in annex VIII). Figure 142. summarizes the three groups of countries with similar price levels that can be distinguished.

Figure 142. Groups of countries in the EU with similar meat price levels and GDP per capita

Groups of countries in the EU with similar meat price levels and GDP per capita	
Groups of countries	GDP per capita in 2010 (€)
1 Germany, Belgium, Luxembourg, France, Italy, Austria, Denmark, Sweden, Finland, Netherlands, UK, Ireland	> 30 000
2 Spain, Portugal, Greece, Cyprus, Malta	15 000 – 20 000
3 Bulgaria, Romania, Slovakia, Czech Republic, Poland, Hungary, Lithuania, Latvia, Estonia	5 000 – 10 000

Slovenia was excluded from the analysis due to not having the data available

The price level dispersion found seems to be rather persistent given the large number of graphs that do not show any evidence of price convergence at all (Figure 143.). Between countries in a different group of the three groups identified we do not observe almost any convergence, for example between Spain and France (Figure B.13 in annex VIII), Bulgaria and Greece (Figure B.23 in annex VIII), Austria and the Czech Republic (Figure B.29 in annex VIII), Poland and Germany (Figure B.33 in annex VIII), and Estonia and Finland (Figure B.37 in annex VIII).

***Figure 143. Evidence of Meat Price Level Convergence*[136]**

Evidence of Meat Price Level Convergence				
	Convergence			
	Steady-Stage	Catching-Up	Absent	Total
No. of Paired Countries	10[a]	15[b]	20[c]	45
Percentage	22	33	44	100

To summarise, three groups of countries in the EU can be distinguished regarding the level of the meat price and GDP per capita. The highest meat price level is found in the group consisting of Germany, Belgium, Luxembourg, France, Italy, Austria, Denmark, Sweden, Finland, Netherlands, UK and Ireland, countries with the highest GDPs per capita (≥ 30,000 euro). The second group has a 20-40% lower meat price level and comprises Spain, Portugal, Greece, Cyprus and Malta where the GDP per capita (15,000-20,000 euro) is lower. A further 10-15% lower meat price level is found in Bulgaria, Romania, Slovakia, Czech Republic, Poland, Hungary, Lithuania, Latvia and Estonia, countries with a relatively low GDP/capita (5,000-10,000 euro). In spite of these meat price level dispersions there are many meat prices that do not exhibit any convergence towards price parity at all.

14.1.3 Explanation of price divergence

To explain the observed meat price differences between EU member states, we performed a log-linear regression of comparative consumer price level and retail concentration on cross-country price level of meat, for a given point in time. Meat price level and comparative consumer price level data were retrieved from Eurostat, and retail concentration data measured as the number of food retailers, retail brands and retail outlets per capita from retail-index.com (this analysis excludes retailers of which the product sales consist of less than 50% of food products, small shops, butchers and markets**)**. Results show that the differences in meat price levels of the EU member states are related to the general economic situation as represented by the comparative consumer price level. Retail concentration was not significant.

Figure 143. shows that almost 50% of the pairs neighbouring countries in the EU did not show meat price convergence from 1996 up to 2011. **Meat price differences between some countries thus seem to have a permanent character**.

Fundamental causes of the price differentials for specific products often seem to be of an economy-wide character as, for example, general price levels (Fousekis, 2009; Andersson, Masuch & Schiffbauer, 2009). Therefore, we include the comparative consumer price level in the analysis. Furthermore, a lack of competition between food retailers can result in higher price levels for meat. Therefore, as a proxy

[136] Please see Figures in Annex VIII: [a] Figures B.2, B.3, B.5, B.14, B.18, B.23, B.25, B.32, B.42, B.43. [b] Figures B.1, B.12, B.13, B.15, B.19, B.21, B.22, B.26, B.34, B.35, B.36, B.39, B.40, B.44, B.45. [c] Figures B.4, B.6, B.7, B.8-B.11, B.16, B.17, B.20, B.24, B.27-B.31, B.33, B.37, B.38, B.41.

indicator of the level of competition in retail, we include food retail concentration in the analysis. Food retail concentration was measured as the number of food retailers, retail brands and retail outlets per capita.

We used a log-linear regression of the cross-country price levels of meat in 2011 ($P_{(k,2011)}$, k = EU member states) on the 2010 comparative price levels[137] of final consumption of private households including indirect taxes (Eurostat variable tec00120, EU27 = 100) and the number of food retailers per capita, number of brands per capita and number of food outlets per capita as indicators of retail market concentration (see annex VI). These comparative consumer price levels are the ratio between purchasing power parities and market exchange rate for each country in relation to the EU average. If the index of the comparative consumer price levels for a country is higher/lower than 100, the country concerned is relatively expensive/cheap as compared to the EU average. The analysis was carried out under an assumption that less retailers, retail brands and retail outlets per capita in a country mean less choice of shops for consumers and a more concentrated retail. Malta was excluded from the analysis because no retail concentration data was available.

The "number of food retailers 2010" does not include retailers of which the product sales consist of less than 50% of food products, small shops, butchers and markets. Therefore the analysis was repeated with this variable replaced by the variable "number of enterprises" from Eurostat ("from farm to fork", file "foodact8", Table "structure of food retailers: number of enterprises regarding the retail sale of meat and meat products")[138]. We used data of 2007, because this is the most recent year for which data of all EU member states are available.

Figure 144 shows that meat price differences across countries are explained for almost 64% by the differences in the comparative consumer price levels. The number of food retailers per capita, number of brands per capita and number of food outlets per capita are not significant. A log-linear regression of only the three retail concentration variables on the cross-country price level showed that these variables are not significant at p=0.05 (Figure 1 in annex VII), indicating that no collinearity problems arise in the regression between these variables and the comparative consumer price level. Replacing the number of food retailers by the number of enterprises does not change these results (Figure 2 in Annex VII). Concluding, the meat price divergence is in line with the comparative consumer price levels and is not related to retail concentration.

[137] Using the GDP per capita instead of the comparative consumer price level shows similar results. Over 64% of differences in meat price levels are explained by differences in GDP per capita, retail concentration variables do not significantly contribute to the explanation (Figure 3 in Annex VII). Indeed, general price levels are highly positively correlated with the GDP per capita, known as the Penn Effect (Fousekis, 2009; Andersson, Masuch & Schiffbauer, 2009).

[138] An enterprise is defined as the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

Figure 144. Log linear regression of the comparative consumer price level and retail concentration variables on cross country meat price levels in 2011

Log-linear regression of cross-country meat price levels in 2011 ($P_{(k,2011)}$, k=1, …, 26, Malta is excluded) on comparative consumer price levels in 2010, number of food retailers per capita, number of brands per capita and number of outlets per capita

	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	1.229832	0.934022	1.316705	0.2021
Comparative consumer price level in 2010	0.748688	0.137952	5.427160	0.0000
Number of food retailers per capita	-0.084499	0.115911	-0.729001	0.4741
Number of brands per capita	0.084466	0.120095	0.703329	0.4896
Number of food retail outlets per capita	-0.000177	0.049743	-0.003567	0.9972

R-squared	0.699949	Mean dependent var	4.667686
Adjusted R-squared	0.642797	S.D. dependent var	0.258230
S.E. of regression	0.154335	Akaike info criterion	-0.728342
Sum squared resid	0.500205	Schwarz criterion	-0.486400
Log likelihood	14.46845	Hannan-Quinn criter.	-0.658672
F-statistic	12.24704	Durbin-Watson stat	1.798479
Prob(F-statistic)	0.000027		

14.2 Meat prices collected by mystery shoppers

14.2.1 Overall results

The total meat prices (€) that are based on all price data collected in the course of the mystery shopping exercise (the four meat categories and all meat types) are presented in Figure 145.. In countries where prices are higher than average, the index is higher than 100 and in countries where prices are lower than average, the index is below 100.

Figure 145. Average meat prices from the mystery shopping study in the EU member states[139]

TOTAL MEAT PRICES	Mean price per kg	Index (EU27=100)	Base size
EU27	**€ 6,20**	**100**	**10065**
EU15	**€ 7,07**	**114**	**6696**
EU12	**€ 4,48**	**72**	**3369**
FI	€ 8,74	141	374
DK	€ 8,66	140	435
LU	€ 8,24	133	245
FR	€ 7,95	128	641
SE	€ 7,89	127	415
AT	€ 7,80	126	299
BE	€ 7,62	123	447
EL	€ 7,27	117	416
NL	€ 7,24	117	467
DE	€ 6,99	113	427
IT	€ 6,89	111	401
CY	€ 6,33	102	190
IE	€ 6,22	100	485
UK	€ 6,05	98	822
SI	€ 5,82	94	376
ES	€ 5,13	83	408
EE	€ 5,06	82	317
MT	€ 5,05	81	279
PT	€ 4,67	75	414
SK	€ 4,46	72	313
CZ	€ 4,30	69	255
LV	€ 4,25	69	251
HU	€ 3,89	63	286
LT	€ 3,70	60	260
PL	€ 3,70	60	203
BG	€ 3,63	59	310
RO	€ 3,57	58	329

[139] Indexes are presented for each country or country group with the average EU27 price set at 100.

In figure 146., **three groups of countries are distinguished according to price levels**. In order to ease the comparison of prices between countries within the price groups, indexes were calculated and are shown in the second column. The average price for each country grouping was set at 100. The last column of the table depicts the total number of price records collected. It should be noted that in a number of cases, particularly at country level, the base of price records is too low to offer reliable data and the results should be taken as indicative.

A similar grouping of countries to the one described in the analysis of price convergence can be observed in the price data, confirming that the secondary statistical data from Eurostat and the price collection data are in line. Besides, a comparison between the price data collected in the survey and benchmark Eurostat data on meat shows that data from these two sources is consistent. This analysis is available in Annex V.

As a result, countries can be split in three groupings: **high prices** (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Sweden and the UK), **medium prices** (Cyprus, Greece, Malta, Portugal and Spain) and **low prices** (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia) based on the analysis on price convergence presented in the consumer prices chapter. Please note Slovenia is not part of a grouping due to insufficient data availability.

Overall, the average price of meat per kilogram amounts to €6.20 (Figure 146.). There are differences in the average price between the EU15 countries (€7.07) and the EU12 countries (€4.48).

Figure 146. Average meat prices from the mystery shopping study in the EU member states[140]

TOTAL MEAT PRICES	Mean price per kg	Index (Country grouping=100)	Base size
EU27	**€ 6.20**		**10065**
EU15	€ 7.07		6696
EU12	€ 4.48		3369
High price countries	**€ 7.38**	**100**	**5,458**
FI	€ 8.74	118	374
DK	€ 8.66	117	435
LU	€ 8.24	112	245
FR	€ 7.95	108	641
SE	€ 7.89	107	415
AT	€ 7.80	106	299
BE	€ 7.62	103	447
NL	€ 7.24	98	467
DE	€ 6.99	95	427
IT	€ 6.89	93	401
IE	€ 6.22	84	485
UK	€ 6.05	82	822
Medium price countries	**€ 5.66**	**100**	**1,707**
EL	€ 7.27	128	416
CY	€ 6.33	112	190
ES	€ 5.13	91	408
MT	€ 5.05	89	279
PT	€ 4.67	82	414
Low price countries	**€ 4.08**	**100**	**2,524**
EE	€ 5.06	124	317
SK	€ 4.46	109	313
CZ	€ 4.30	105	255
LV	€ 4.25	104	251
HU	€ 3.89	95	286
LT	€ 3.70	91	260
PL	€ 3.70	91	203
BG	€ 3.63	89	310
RO	€ 3.57	88	329
SI*	€ 5.82		376

* Slovenia was excluded from the GDP analysis due to not having the data available

[140] Indexes are presented for each grouping, with the average price per grouping set at 100.

Overall price levels are linked to the GDP level of the country. The average meat prices based on the data collected by the mystery shoppers shows high consistency with the data of Eurostat used in the analysis of price convergence presented in chapter x. Meat price levels mostly match the country groupings, albeit with some overlap between the most expensive and cheapest countries in different groupings.

The following observations can be made based on the data:

- In the high price grouping, Finland has the most expensive prices (index 118) and the UK the lowest (index 82).
- In the medium price grouping, Greece has the most expensive meat (index 124) and Portugal the cheapest (index 82).
- In the low price grouping, Estonia has the most expensive meat (index 124) and Romania the cheapest (index 88).

14.2.2 Meat prices per category of meat

In this sub-chapter we analyse the consumer prices per meat category (minced beef, pork sausages, whole chicken, pork cutlets). We will firstly have a look at the price differences *between categories* at the aggregate level. Secondly, consumer prices *within each category* will be analysed at country level.

In general, the most expensive meat category minced beef costs €7.24 per kilo while the cheapest category chicken costs €4.40 per kilo. The average price for pork cutlet is €7.06/kg and for pork sausage €6.39/kg. For each meat category, the average price is higher in the EU15 countries than in the EU12 countries. The most expensive meat on average is found in Finland (€8.74/kg) and the least expensive in Romania (€3.57/kg)

Figure 147. depicts the average prices per meat category. An index is calculated with the total average price of all meat categories in EU27 set as 100.

Figure 147. Average prices per meat category[141]

	TOTAL			Minced beef			Pork sausages			Whole chicken			Pork cutlets		
	Mean per KG	Index (EU27 TOTAL= 100)	Base	Mean per KG	Index (EU27 TOTAL= 100)	Base	Mean per KG	Index (EU27 TOTAL= 100)	Base	Mean per KG	Index (EU27 TOTAL= 100)	Base	Mean per KG	Index (EU27 TOTAL= 100)	Base
EU27	€ 6,20	100	10065	€ 7,24	116,8	2530	€ 6,39	103,1	2323	€ 4,40	71,0	2835	€ 7,06	113,9	2377
EU15	€ 7,07	114,0	6696	€ 8,07	130,2	1801	€ 7,00	112,9	1558	€ 5,21	84,0	1811	€ 8,17	131,8	1526
EU12	€ 4,48	72,3	3369	€ 5,19	83,7	729	€ 5,14	82,9	765	€ 2,99	48,2	1024	€ 5,07	81,8	851

The following findings regarding the consumer prices per meat category can be derived from the data:

- **At EU27 level, minced beef (index score= 116,8) is the most expensive meat category, followed by pork cutlets (113,9), pork sausages (103,1) and whole chicken (71)**.
- In the EU15 countries, the average price index of pork cutlets (131,8) is slightly higher than that of minced beef (130,12). Prices indices of all meat categories are above the EU27 index.
- In the EU12 countries, consumer price indices for minced beef (83,7), pork sausages (82,9) and pork cutlets (81,8) are close to each other. The price index for whole chicken is considerably lower in comparison to the other categories (48,2). All consumer price indices in the EU12 are below the EU27 index.

Figure 148. depicts the prices within each meat category at the aggregate as well as country level. For each meat category, the average country grouping price is set at 100 in order to calculate an index.

- **Prices of each meat category are considerably higher in EU15 countries than in EU12 countries. This is particularly the case for whole chicken**.
- Looking at the high price countries, France has the most expensive minced beef (index 122) and the UK the cheapest (index 77). Austria has the most expensive pork sausages (index 142) and the UK and Ireland (both index 77) the cheapest. Whole chickens are the most expensive in Finland (index 128) and again the cheapest (index 82) in the UK and Ireland. Pork cutlets are most expensive in Finland (index 127) and the least expensive in France and Italy (both index 86).
- In the medium price grouping, Greece has the most expensive minced beef (index 122), whole chicken (index 144) and pork cutlets (index 113). Cyprus has the most expensive pork sausages (index 133). Spain has the least expensive minced beef (index 91), Malta the least expensive pork sausages (index 68), Portugal the least expensive whole chickens (index 72) and Cyprus the

[141] Indexes are based on the average price for the EU27 set at 100.

least expensive pork cutlets (index 85). These wide disparities could be linked to local production patterns. For instance, pork represents a large share of the Maltese meat production, which could explain why pork sausages are relatively cheaper than other meat categories in this country.

- In the low price grouping, Estonia has the most expensive minced beef (index 124), pork sausages (index 130), and pork cutlets (index 119). The Czech Republic has the most expensive whole chickens (index 135). The cheapest minced beef (index 78) and whole chickens (index 80) were found in Poland. Lithuania has the cheapest pork sausages (index 79) and pork cutlets (index 85).

Figure 148. Average meat prices per country and meat category[142]

	Minced beef			Pork sausages			Whole chicken			Pork cutlets		
	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size
EU27	**€ 7,24**		**2530**	**€ 6,39**		**2323**	**€ 4,40**		**2835**	**€ 7,06**		**2377**
EU15	**€ 8,07**		**1801**	**€ 7,00**		**1558**	**€ 5,21**		**1811**	**€ 8,17**		**1526**
EU12	**€ 5,19**		**729**	**€ 5,14**		**765**	**€ 2,99**		**1024**	**€ 5,07**		**851**
High price countries	**€ 8,20**	**100**	**1519**	**€ 7,09**	**100**	**1261**	**€ 5,57**	**100**	**1425**	**€ 8,74**	**100**	**1253**
FR	€ 10,04	122	147	€ 9,36	132	134	€ 6,03	108	229	€ 7,53	86	131
LU	€ 9,63	117	56	€ 9,18	129	55	€ 6,56	118	78	€ 8,26	95	56
DK	€ 9,53	116	135	€ 8,18	115	89	€ 6,60	119	117	€ 10,42	119	94
SE	€ 9,08	111	133	€ 6,35	90	96	€ 5,47	98	85	€ 9,80	112	101
FI	€ 8,82	107	135	€ 7,50	106	110	€ 7,11	128	45	€ 11,13	127	84
AT	€ 8,71	106	90	€ 10,10	142	26	€ 5,48	98	86	€ 8,40	96	97
BE	€ 8,31	101	86	€ 8,03	113	92	€ 6,18	111	159	€ 8,84	101	110
IT	€ 8,04	98	123	€ 6,91	97	102	€ 4,69	84	91	€ 7,55	86	85
DE	€ 7,58	92	108	€ 6,83	96	116	€ 5,03	90	87	€ 8,05	92	116
IE	€ 7,22	88	143	€ 5,48	77	111	€ 4,58	82	135	€ 7,89	90	96
NL	€ 7,21	88	151	€ 6,50	92	112	€ 5,81	104	90	€ 9,14	105	114
UK	€ 6,30	77	212	€ 5,44	77	218	€ 4,58	82	223	€ 8,47	97	169
Medium price countries	**€ 7,14**	**100**	**399**	**€ 6,60**	**100**	**416**	**€ 3,88**	**100**	**519**	**€ 5,51**	**100**	**373**
EL	€ 8,73	122	94	€ 8,77	133	111	€ 5,57	144	123	€ 6,21	113	88
CY	€ 6,81	95	44	€ 9,52	144	49	€ 4,32	111	50	€ 4,70	85	47
PT	€ 6,78	95	99	€ 5,14	78	86	€ 2,80	72	136	€ 4,74	86	93
MT	€ 6,56	92	73	€ 4,49	68	70	€ 3,63	94	83	€ 5,93	108	53
ES	€ 6,52	91	89	€ 5,48	83	100	€ 3,39	87	127	€ 5,80	105	92
Low price countries	**€ 4,74**	**100**	**541**	**€ 4,35**	**100**	**535**	**€ 2,66**	**100**	**776**	**€ 4,96**	**100**	**672**
EE	€ 5,87	124	80	€ 5,68	130	74	€ 2,76	104	79	€ 5,90	119	84
SK	€ 5,30	112	42	€ 5,51	127	91	€ 2,47	93	104	€ 5,47	110	76
CZ	€ 4,94	104	64	€ 3,93	90	44	€ 3,58	135	78	€ 4,77	96	69
HU	€ 4,66	98	55	€ 4,16	96	48	€ 2,71	102	95	€ 4,53	91	88
LV	€ 4,66	98	66	€ 4,17	96	49	€ 2,54	96	62	€ 5,37	108	74
LT	€ 4,65	98	54	€ 3,44	79	69	€ 2,78	105	72	€ 4,22	85	65
BG	€ 4,40	93	63	€ 3,81	88	56	€ 2,52	95	118	€ 4,61	93	73
RO	€ 4,20	89	60	€ 3,58	82	81	€ 2,49	94	111	€ 4,64	94	77
PL	€ 3,71	78	57	€ 3,90	90	23	€ 2,12	80	57	€ 4,99	101	66
SI*	€ 6,19		71	€ 7,42		111	€ 4,16		115	€ 5,65		79

* Slovenia was excluded from the GDP analysis due to not having the data available

14.2.3 Meat prices per type of meat

Besides the differences between meat categories, also the differences between types of meat were collected in the course of the mystery shopping exercise which will be presented in this sub-chapter at overall level taking all meat categories together. We analyse the **prices at aggregate level for all specific types of meat covered by the mystery shopping exercise**. Analysis at country level is limited to four specific types of meat, namely regular, origin certified.[143] organic and animal welfare certified meat. It should be noted that, for a number of meat types, the base of price records collected is limited even at aggregate level and particularly for the EU12 countries. The bases are indicated in the third column for each type of meat.

[142] Indexes are presented for each grouping, with the average price per grouping set at 100.

143 Please note that 'origin certified meat' is defined as meat with specific geographic certifications, such as Protected Designated Origin products or national equivalents.

Figure 149. depicts the prices for different meat types for all meat categories taken together. For prices comparisons, an index is calculated so that the EU average price of all price records is set as 100.

Figure 149. Average meat prices by type of meat[144]

	TOTAL			Organic			Environment/ climate certified			Animal welfare certified			Origin certified			Other			Religious slaughter			Regular		
	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base	Average per KG	Index (EU27 TOTAL = 100)	Base
EU27	€ 6,20	100,0	10.065	€ 8,97	144,7	1.218	€ 8,37	135,0	100	€ 6,47	104,4	462	€ 6,44	103,9	2.716	€ 5,93	95,6	144	€ 5,68	91,6	57	€ 5,40	87,1	5368
EU15	€ 7,07	114,0	6.696	€ 9,31	150,2	1.118	€ 9,51	153,4	83	€ 6,77	109,2	419	€ 7,03	113,4	2.056	€ 6,53	105,3	103	€ 5,67	91,5	55	€ 6,24	100,6	2862
EU12	€ 4,48	72,3	3.369	€ 5,17	83,4	100	€ 2,78	44,8	17	€ 3,53	56,9	43	€ 4,59	74,0	660	€ 4,44	71,6	41	€ 6,10	98,4	2	€ 4,45	71,8	2506

The following findings can be derived from the data:

- **At EU27 level, the most expensive type of meat is organic meat (Index score=144,7), followed by environment/climate certified meat (135). Prices of animal welfare certified (104,4) and origin certified (103,9) and other specific types of meat (mainly meat with health claims) (95,6) are relatively close to the EU average while meat slaughtered with religious rules is considerably below the average (91,6). Regular meat is the cheapest type of meat of all (87,1)**.
- In the EU15 countries, all specific types of meat are more expensive than in the EU27 on average. The most expensive types of meat are organic (150,2) and environment/climate certified meat (153,4). The only exception to this is religiously slaughtered meat due to the fact that such type of meat barely exists in the EU12 countries, and thus the EU27 average is based on the prices collected within the EU15 countries.
- In the EU12 countries, all prices of specific types of meat are below the EU27 average and considerably below the prices of EU15. Organic meat is the most expensive type of meat (83,4).[145]

For country-level analysis, Figure 150. depicts the prices of four different types of meat at country level with all meat categories taken together. In order to compare the prices between countries, for each specific type, the average price for each country grouping is set at 100. For a number of Member States, a given specific type of meat was not available at all or the base of price records was too small (below 10) for further analysis. These results have been omitted in Figure 150.. The following can be pointed out:

[145] Please note the index is higher for religiously slaughtered meat but is based on 2 cases only.

- **All specific types of meat are cheaper in the EU12 countries than in the EU15 countries. This is particularly the case for organic and animal welfare certified meat**.
- In the high price grouping, Finland has the most expensive regular meat (index 121) and the UK the cheapest (index 76). In the medium price grouping, Greece has the most expensive regular meat (index 130) and Portugal the cheapest (index 76). In the low price grouping, Estonia has the most expensive regular meat (index 125) and Poland the cheapest (index 91).
- The range of prices of origin certified, organic and animal welfare certified meat across Member States is wide. However, due to the low bases, these results should be interpreted with great care, as the category of meat (minced beef, pork sausages, whole chicken, pork cutlets) may differ between countries and thus have an impact on price levels.
- In the high price grouping, Finland has the most expensive certified meat (index 121) and the UK the cheapest (index 80). Denmark and France (index 125) have the most expensive organic meat, while Italy has the cheapest (index 70). As for animal welfare certified meat, it is most expensive in Belgium (index 125) and least expensive in Ireland (index 71).
- In the medium price grouping, Spain has the most expensive origin certified meat (index 120) and Malta the cheapest (index 72). Other meat types have low base sizes, although there are some indications that organic and animal welfare certified meats are more expensive in Greece than in Portugal.
- In the low price grouping, origin certified meat is the most expensive in Estonia (index 122) and the cheapest in Romania and Bulgaria (index 71). Base sizes for other meat types are too low to be commented on.

Figure 150. Average meat prices by type and by country[146]

	Regular			Origin certified			Organic			Animal welfare certified		
	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size	Mean price per kg	Index (Country grouping=100)	Base size
EU27	€ 5,40		5368	€ 6,44		2716	€ 8,97		1218	€ 6,47		462
EU15	€ 6,24		2862	€ 7,03		2056	€ 9,31		1118	€ 6,77		419
EU12	€ 4,45		2506	€ 4,59		660	€ 5,17		100	€ 3,53		43
High price countries	**€ 6,67**	**100**	**2153**	**€ 7,04**	**100**	**1760**	**€ 9,39**	**100**	**1024**	**€ 7,33**	**100**	**325**
FI	€ 8,10	121	174	€ 8,51	121	123	€ 10,89	116	66	*Base too small*		
DK	€ 7,33	110	221	€ 8,62	122	96	€ 11,78	125	99	€ 8,07	110	19
LU	€ 7,24	109	127	€ 7,89	112	54	€ 11,56	123	49	€ 6,76	92	13
AT	€ 7,13	107	195	€ 7,33	104	35	€ 9,98	106	66	*Base too small*		
FR	€ 7,07	106	304	€ 7,87	112	207	€ 11,75	125	73	€ 8,81	120	33
SE	€ 6,79	102	157	€ 7,68	109	107	€ 9,05	96	76	€ 7,21	98	24
IT	€ 6,48	97	142	€ 7,71	109	108	€ 6,62	70	120	€ 6,71	92	18
BE	€ 6,43	96	203	€ 8,00	114	147	€ 10,36	110	60	€ 9,14	125	21
NL	€ 6,12	92	213	€ 6,96	99	47	€ 8,34	89	137	€ 8,23	112	56
DE	€ 5,90	88	119	€ 6,67	95	239	€ 10,35	110	58	*Base too small*		
IE	€ 5,61	84	108	€ 5,96	85	260	€ 9,00	96	61	€ 5,23	71	34
UK	€ 5,07	76	190	€ 5,66	80	337	€ 7,90	84	159	€ 6,39	87	96
Medium price countries	**€ 5,22**	**100**	**1110**	**€ 6,60**	**100**	**355**	**€ 8,20**	**100**	**99**	**€ 4,85**	**100**	**94**
EL	€ 6,79	130	168	€ 6,95	105	188	€ 12,28	150	33	€ 6,27	129	26
CY	€ 6,33	121	190	*Not available*			*Not available*			*Not available*		
MT	€ 5,16	99	211	€ 4,73	72	59	*Base too small*			*Not available*		
ES	€ 4,72	90	279	€ 7,93	120	36	*Base too small*			€ 4,53	93	48
PT	€ 3,99	76	262	€ 6,55	99	72	€ 5,83	71	53	€ 3,78	78	20
Low price countries	**€ 4,04**	**100**	**1849**	**€ 4,17**	**100**	**525**	**€ 4,75**	**100**	**78**	**€ 3,48**	**100**	**41**
EE	€ 5,03	125	145	€ 5,08	122	172	*Not available*			*Not available*		
SK	€ 4,59	114	176	€ 4,27	102	112	*Base too small*			€ 3,09	89	12
LV	€ 4,22	105	236	€ 4,73	113	13	*Base too small*			*Not available*		
CZ	€ 4,03	100	217	€ 3,66	88	15	€ 7,31	154	23	*Not available*		
HU	€ 3,95	98	163	€ 3,92	94	89	€ 3,96	83	10	€ 3,60	103	15
BG	€ 3,81	94	244	€ 2,97	71	64	*Base too small*			*Not available*		
RO	€ 3,76	93	226	€ 2,96	71	50	€ 3,32	70	26	€ 3,69	106	14
LT	€ 3,70	92	258	*Not available*			*Base too small*			*Not available*		
PL	€ 3,69	91	184	€ 3,40	82	10	*Base too small*			*Not available*		
SI*	€ 5,44		256	€ 7,34		76	€ 7,23		17	*Base too small*		

* Slovenia was excluded from the GDP analysis due to not having the data available

14.2.4 Prices of specific meat types in comparison to prices of regular meat

One of the specific objective of the mystery shopping exercise was to collect price data of specific types of products in order to be able to compare the price levels of regular meat and three specific types of meat, namely origin certified, organic and animal welfare certified meat. In this sub-chapter we present the overall findings of this analysis, followed by a case-study on Dutch chicken filet.

The price collection exercise reveals **large variations between the average prices of regular meat and sustainable (organic and environment/climate certified products), animal welfare friendly and quality guarantee products both in the EU taken as a whole, in the EU15 and EU12 countries and across the Member States**. The following overall remarks can be made:

Specific types of products are clearly more expensive than regular products in the EU27 countries. The average price of *regular* meat is €5.40/kg. The most expensive type of meat is organic (€8.97/kg) followed by environment/climate certified meat (€8.37), animal welfare certified meat (€6.47/kg) and origin certified meat (€6.44/kg).

[146] Indexes are presented for each grouping, with the average price per grouping set at 100. Please note cells are empty when base sizes are below 5.

Figure 151. presents the average prices for regular, origin certified, organic and animal welfare certified meat with all meat categories taken together. In order to compare the prices, an index is calculated with the average price of regular meat in the EU27 set as 100.

Figure 151. Average meat prices by type – Indexed on regular meat prices[147]

	Regular			Origin certified			Organic			Animal welfare		
	Mean per KG	Index (Regular EU27=100)	BASE	Mean per KG	Index (Regular EU27=100)	BASE	Mean per KG	Index (Regular EU27=100)	BASE	Mean per KG	Index (Regular EU27=100)	BASE
EU27	€ 5,40	100,0	5.368	€ 6,44	119,3	2.716	€ 8,97	166,1	1.218	€ 6,47	119,8	462
EU15	€ 6,24	115,6	2.862	€ 7,03	130,2	2.056	€ 9,31	172,4	1.118	€ 6,77	125,4	419
EU12	€ 4,45	82,4	2.506	€ 4,59	85,0	660	€ 5,17	95,7	100	€ 3,53	65,4	43

The following observations can be made:

- At the EU27 level, organic meat is the most expensive specific type of meat (Index score=166,1). The price levels of origin certified meat (119,3) and animal welfare certified meat (119,8) are on a par.
- In the EU15 countries, the highest average price is recorded for organic meat (172,4). Origin certified meat (130,2) is slightly more expensive than animal welfare certified meat (125,4). All types of meat are on average more expensive in the EU15 than in the EU27.

In the EU12 countries, all specific types of meat are considerably cheaper than the average price for regular meat in the EU27. Furthermore, the prices of origin certified meat (85,0) and organic meat (95,7) in the EU12 countries are closer to the average price for regular meat than in the EU15. This indicates that prices do not vary as much as in the EU15 countries. Finally, it is interesting to note that the price of animal welfare certified products (65,4) is lower than the price of regular products (82,4). This is due to the fact that all but two animal welfare certified products assessed in the EU12 countries belonged to the category of whole chicken. As seen above, the total price of whole chicken in the EU12 countries is distinctly low.

Figure 152. presents the price data of specific meat types in comparison to regular meat once more, however this time, with the average price of regular meat of each country set as 100. This illustrates the relation of prices of specific products within each country where the data was available. The following observations can be made:

[147] Indexes are based on the average price for regular meat set at 100.

- **In most countries where data were available, organic meat is the most expensive type of meat**. At the EU27 level the index for organic meat is 166,1. Only, in Italy and Portugal, origin certified meat is the priciest meat type. This is the case also in Slovenia, Spain and Slovakia but in these countries data were available for only two specific types of products. Animal welfare certified meat is the cheapest type of meat in most Member States which is partly linked to the fact that most animal welfare certified products belonged to the category 'whole chicken' which is the cheapest meat category overall. When comparing the prices between regular chicken and animal welfare certified chicken, in all countries where the data is available, the latter is more expensive, as the analysis in the following pages shows.
- **In a number of countries, specific types of meat were cheaper than regular meat, particularly in case of animal welfare certified products but also when it comes to origin certified meat**. Animal welfare certified meat was cheaper than the regular meat in the following countries: Luxembourg, Greece, Ireland, Slovakia, Portugal, Hungary and Romania. Origin certified meat had a lower price in Slovakia, the Czech Republic, Hungary, Bulgaria, Romania and Poland.

Figure 152. Average meat prices by type and by country – Indexed on prices of regular meat[148]

	Regular			Origin certified			Organic			Animal welfare certified		
	Mean per KG	Index (Regular per country =100)	BASE	Mean per KG	Index (Regular per country =100)	BASE	Mean per KG	Index (Regular per country =100)	BASE	Mean per KG	Index (Regular per country =100)	BASE
EU27	€ 5,40	100	5368	€ 6,44	119,3	2716	€ 8,97	166,1	1218	€ 6,47	119,8	462
EU15	€ 6,24	100	2862	€ 7,03	112,7	2056	€ 9,31	149,2	1118	€ 6,77	108,5	419
EU12	€ 4,45	100	2506	€ 4,59	103,1	660	€ 5,17	116,2	100	€ 3,53	79,3	43
FI	€ 8,10	100	174	€ 8,51	105,1	123	€ 10,89	134,4	66	*Base too small*		
DK	€ 7,33	100	221	€ 8,62	117,6	96	€ 11,78	160,7	99	€ 8,07	110,1	19
LU	€ 7,24	100	127	€ 7,89	109,0	54	€ 11,56	159,7	49	€ 6,76	93,4	13
AT	€ 7,13	100	195	€ 7,33	102,8	35	€ 9,98	140,0	66	*Base too small*		
FR	€ 7,07	100	304	€ 7,87	111,3	207	€ 11,75	166,2	73	€ 8,81	124,6	33
EL	€ 6,79	100	168	€ 6,95	102,4	188	€ 12,28	180,9	33	€ 6,27	92,3	26
SE	€ 6,79	100	157	€ 7,68	113,1	107	€ 9,05	133,3	76	€ 7,21	106,2	24
IT	€ 6,48	100	142	€ 7,71	119,0	108	€ 6,62	102,2	120	€ 6,71	103,5	18
BE	€ 6,43	100	203	€ 8,00	124,4	147	€ 10,36	161,1	60	€ 9,14	142,1	21
CY	€ 6,33	100	190	*Not available*			*Not available*			*Not available*		
NL	€ 6,12	100	213	€ 6,96	113,7	47	€ 8,34	136,3	137	€ 8,23	134,5	56
DE	€ 5,90	100	119	€ 6,67	113,1	239	€ 10,35	175,4	58	*Base too small*		
IE	€ 5,61	100	108	€ 5,96	106,2	260	€ 9,00	160,4	61	€ 5,23	93,2	34
SI	€ 5,44	100	256	€ 7,34	134,9	76	€ 7,23	132,9	17	*Base too small*		
MT	€ 5,16	100	211	€ 4,73	91,7	59	*Base too small*			*Not available*		
UK	€ 5,07	100	190	€ 5,66	111,6	337	€ 7,90	155,8	159	€ 6,39	126,0	96
EE	€ 5,03	100	145	€ 5,08	101,0	172	*Not available*			*Not available*		
ES	€ 4,72	100	279	€ 7,93	168,0	36	*Base too small*			€ 4,53	96,0	48
SK	€ 4,59	100	176	€ 4,27	93,0	112	*Base too small*			€ 3,09	67,3	12
LV	€ 4,22	100	236	€ 4,73	112,1	13	*Base too small*			*Not available*		
CZ	€ 4,03	100	217	€ 3,66	90,8	15	€ 7,31	181,4	23	*Not available*		
PT	€ 3,99	100	262	€ 6,55	164,2	72	€ 5,83	146,1	53	€ 3,78	94,7	20
HU	€ 3,95	100	163	€ 3,92	99,2	89	€ 3,96	100,3	10	€ 3,60	91,1	15
BG	€ 3,81	100	244	€ 2,97	78,0	64	*Base too small*			*Not available*		
RO	€ 3,76	100	226	€ 2,96	78,7	50	€ 3,32	88,3	26	€ 3,69	98,1	14
LT	€ 3,70	100	258	*Not available*			*Base too small*			*Not available*		
PL	€ 3,69	100	184	€ 3,40	92,1	10	*Base too small*			*Not available*		
		Most expensive			Least expensive							

In the pages that follow, we will present the meat prices for specific type of meat by category as a reference (Figures 153.- 156.). It should be kept in mind however that the bases for most types are too small in order to carry out a thorough analysis at country level and these results should be taken as indicative. Consequently, the text does not refer to any exact figures, only to descriptive patterns observed in the data. In case there were no price data available or the number of price records was smaller than 5, the cell is left empty. The index scores for each table are calculated by setting the average price of regular product for each country as 100.

[148] Indexes are based on the average price for regular meat set at 100. Please note cells are empty when base sizes are below 5.

Figure 153. Average meat prices by type and by country – Indexed on prices of regular meat - Minced beef[149]

	Regular			Origin certified			Animal welfare certified			Organic		
Minced beef	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base
EU27	€ 6,33	100	1333	€ 7,40	116,9	667	€ 8,52	134,6	46	€ 9,55	150,9	416
EU15	€ 7,36	100	725	€ 7,73	105,0	571	€ 8,52	115,8	46	€ 9,75	132,5	393
EU12	€ 5,10	100	608	€ 5,45	106,9	96				€ 6,25	122,5	23
FI	€ 7,70	100	51	€ 8,72	113,2	45				€ 10,60	137,7	36
DK	€ 7,83	100	59	€ 9,88	126,2	24				€ 11,53	147,3	49
LU	€ 8,61	100	33	€ 10,14	117,8	10				€ 12,12	140,8	12
FR	€ 9,56	100	78	€ 9,44	98,7	36				€ 14,52	151,9	17
SE	€ 7,83	100	47	€ 9,16	117,0	36	€ 10,49	134,0	5	€ 10,11	129,1	31
AT	€ 8,46	100	57	€ 8,23	97,3	6				€ 9,46	111,8	25
BE	€ 7,49	100	45	€ 8,41	112,3	26				€ 10,56	141,0	12
EL	€ 8,33	100	38	€ 8,34	100,1	51						
NL	€ 6,09	100	62	€ 6,57	107,9	18	€ 8,42	138,3	16	€ 8,15	133,8	49
DE	€ 6,47	100	29	€ 7,25	112,1	55				€ 9,75	150,7	20
IT	€ 7,53	100	40	€ 8,97	119,1	38	€ 7,35	97,6	7	€ 7,58	100,7	33
CY	€ 6,81	100	44									
IE	€ 6,21	100	20	€ 6,18	99,5	82				€ 10,03	161,5	39
UK	€ 5,60	100	41	€ 6,13	109,5	104				€ 7,18	128,2	54
SI	€ 5,88	100	66									
ES	€ 6,13	100	70	€ 7,75	126,4	9						
EE	€ 5,62	100	37	€ 6,10	108,5	43						
MT	€ 6,57	100	67	€ 6,48	98,6	5						
PT	€ 5,45	100	55	€ 7,92	145,3	31				€ 9,46	173,6	10
SK	€ 5,41	100	27	€ 5,10	94,3	15						
CZ	€ 4,82	100	53							€ 5,81	120,5	8
LV	€ 4,64	100	63									
HU	€ 4,48	100	37	€ 5,10	113,8	15						
LT	€ 4,65	100	54									
PL	€ 3,64	100	51									
BG	€ 4,39	100	61									
RO	€ 4,22	100	48	€ 3,96	93,8	7						

- For each Member State where data are available, organic minced beef is more expensive than regular minced beef, and also more expensive than origin certified minced beef.
- Origin certified minced beef is generally more expensive than regular minced beef, with a few exceptions observed in Romania, Austria and France.
- Sufficient price data for animal welfare certified minced beef exist only in three countries, Sweden, the Netherlands and Italy. In Sweden and the Netherlands this type of meat is respectively 34% and 39% more expensive than regular, whereas in Italy it is 2% cheaper.

[149] Indexes are based on the average price for regular meat set at 100. Please note cells are empty when base sizes are below 5.

Figure_154. Average meat prices by type and by country – Indexed on regular meat prices - Pork sausages[150]

	Regular			Origin certified			Animal welfare certified			Organic		
Pork sausages	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base
EU27	€ 5,67	100	1296	€ 6,76	119,2	673	€ 7,60	134,0	68	€ 8,98	158,4	214
EU15	€ 6,26	100	734	€ 7,04	112,5	496	€ 7,74	123,6	66	€ 9,31	148,7	200
EU12	€ 4,89	100	562	€ 5,98	122,3	177				€ 4,28	87,5	14
FI	€ 6,24	100	55	€ 7,67	122,9	35				€ 11,17	179,0	18
DK	€ 6,45	100	56	€ 9,08	140,8	20				€ 14,21	220,3	13
LU	€ 8,40	100	32	€ 8,82	105,0	10				€ 11,74	139,8	12
FR	€ 7,80	100	71	€ 9,96	127,7	46				€ 13,52	173,3	13
SE	€ 5,51	100	41	€ 6,05	109,8	23				€ 5,86	106,4	15
AT	€ 9,58	100	19									
BE	€ 7,47	100	49	€ 7,74	103,6	30				€ 11,54	154,5	8
EL	€ 8,43	100	43	€ 8,37	99,3	58				€ 15,63	185,4	7
NL	€ 5,68	100	59	€ 7,34	129,2	9	€ 7,33	129,0	13	€ 6,96	122,5	29
DE	€ 5,66	100	32	€ 6,37	112,5	61				€ 9,82	173,5	19
IT	€ 6,84	100	36	€ 7,14	104,4	30	€ 6,33	92,5	6	€ 6,79	99,3	28
CY	€ 9,52	100	49									
IE	€ 5,09	100	48	€ 5,86	115,1	53						
UK	€ 4,12	100	54	€ 4,90	118,9	90	€ 7,00	169,9	30	€ 7,37	178,9	31
SI	€ 6,41	100	65	€ 8,84	137,9	46						
ES	€ 5,29	100	71	€ 6,92	130,8	10						
EE	€ 5,82	100	35	€ 5,56	95,5	39						
MT	€ 4,43	100	52	€ 4,75	107,2	17						
PT	€ 4,77	100	68	€ 6,70	140,5	17						
SK	€ 5,44	100	50	€ 5,34	98,2	33						
CZ	€ 3,98	100	41									
LV	€ 4,10	100	45									
HU	€ 3,91	100	30	€ 4,72	120,7	14						
LT	€ 3,44	100	69									
PL	€ 3,75	100	21									
BG	€ 3,73	100	45	€ 4,16	111,5	11						
RO	€ 3,52	100	60	€ 3,56	101,1	10				4,05	115,1	8

- Origin certified pork sausages are generally more expensive than regular pork sausages, with the exception of Slovakia and Greece.
- Organic pork sausages, where available, are considerably more expensive than regular sausages and, in most cases, more expensive than the origin certified product.
- Animal welfare certified pork sausages were found only in three countries, the Netherlands, Italy and the UK.

[150] Indexes are based on the average price for regular meat set at 100. Please note cells are empty when base sizes are below 5.

Figure_155. Average meat prices by type and by country – Indexed on prices of regular meat - Whole chicken[151]

	Regular			Origin certified			Animal welfare certified			Organic		
Whole chicken	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base
EU27	€ 3,38	100	1257	€ 4,49	132,8	808	€ 5,32	157,4	296	€ 7,02	207,7	352
EU15	€ 3,95	100	628	€ 5,27	133,4	549	€ 5,60	141,8	255	€ 7,36	186,3	302
EU12	€ 2,82	100	629	€ 2,85	101,1	259	€ 3,56	126,2	41	€ 4,97	176,2	50
FI	€ 7,19	100	26	€ 6,43	89,4	13				€ 9,18	127,7	5
DK	€ 5,25	100	49	€ 6,62	126,1	36	€ 7,03	133,9	12	€ 9,60	182,9	20
LU	€ 4,02	100	30	€ 6,85	170,4	20	€ 6,75	167,9	12	€ 10,83	269,4	16
FR	€ 4,10	100	72	€ 6,12	149,3	93	€ 7,34	179,0	23	€ 9,49	231,5	33
SE	€ 4,11	100	25	€ 4,49	109,2	21	€ 5,04	122,6	13	€ 6,84	166,4	12
AT	€ 4,91	100	55	€ 4,72	96,1	13				€ 7,77	158,2	18
BE	€ 3,56	100	59	€ 7,25	203,7	52	€ 8,46	237,6	15	€ 9,05	254,2	24
EL	€ 4,51	100	37	€ 4,24	94,0	46	€ 6,39	141,7	22	€ 10,13	224,6	18
NL	€ 4,93	100	39	€ 5,48	111,2	9	€ 7,40	150,1	15	€ 6,30	127,8	23
DE	€ 3,56	100	17	€ 5,36	150,6	66						
IT	€ 4,06	100	28	€ 5,21	128,3	24				€ 4,79	118,0	30
CY	€ 4,32	100	50									
IE	€ 3,15	100	15	€ 3,53	112,1	59	€ 5,23	166,0	34	€ 7,74	245,7	18
UK	€ 3,47	100	43	€ 4,14	119,3	76	€ 4,88	140,6	47	€ 6,19	178,4	46
SI	€ 3,62	100	54	€ 4,53	125,1	26				€ 6,39	176,5	8
ES	€ 2,49	100	67	€ 6,47	259,8	7	€ 4,16	167,1	42			
EE	€ 2,73	100	31	€ 2,78	101,8	48						
MT	€ 3,50	100	59	€ 3,96	113,1	18						
PT	€ 2,13	100	66	€ 2,98	139,9	14	€ 3,08	144,6	16	€ 3,74	175,6	35
SK	€ 2,29	100	48	€ 2,48	108,3	41	€ 3,09	134,9	12			
CZ	€ 2,55	100	59							€ 8,11	318,0	15
LV	€ 2,51	100	59									
HU	€ 2,40	100	31	€ 2,62	109,2	37	€ 3,60	150,0	15	€ 3,25	135,4	5
LT	€ 2,75	100	70									
PL	€ 2,06	100	49	€ 2,49	120,9	5						
BG	€ 2,46	100	66	€ 2,61	106,1	50						
RO	€ 2,50	100	53	€ 2,15	86,0	28	€ 3,81	152,4	12	€ 2,06	82,4	9

- In most Member States where data are available, all specific types of whole chicken are more expensive than the regular product.
- Organic chicken is generally the most expensive type, followed by animal welfare certified chicken and finally origin certified chicken.
- The range of prices between the types of whole chicken varies considerably across the Member States. For example, in the Czech Republic, the price of an organic chicken is more than three times that of a regular chicken. Similarly, an origin certified chicken costs more than twice more than a regular chicken in Spain. In other words, large variation of price of chicken is observed between Member States.

[151] Indexes are based on the average price for regular meat set at 100. Please note cells are empty when base sizes are below 5.

Figure 156. Average meat prices by type and by country – Indexed on prices of regular meat - Pork cutlets[152]

	Regular			Origin certified			Animal welfare certified			Organic		
Pork chops	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base	Mean per KG	Index	Base
EU27	€ 6,06	100	1482	€ 7,69	126,9	568	€ 9,71	160,2	52	€ 10,84	178,9	236
EU15	€ 7,03	100	775	€ 8,32	118,3	440	€ 9,71	138,1	52	€ 11,18	159,0	223
EU12	€ 4,99	100	707	€ 5,52	110,6	128			0	€ 5,01	100,4	13
FI	€ 11,58	100	42	€ 10,08	87,0	30	€ 11,23	97,0	5	€ 12,86	111,1	7
DK	€ 9,44	100	57	€ 10,63	112,6	16				€ 13,21	139,9	17
LU	€ 7,68	100	32	€ 7,10	92,4	14				€ 11,85	154,3	9
FR	€ 6,67	100	83	€ 8,17	122,5	32				€ 12,18	182,6	10
SE	€ 8,38	100	44	€ 9,59	114,4	27				€ 11,34	135,3	18
AT	€ 7,14	100	64	€ 9,14	128,0	12				€ 11,90	166,7	20
BE	€ 7,84	100	50	€ 8,93	113,9	39				€ 11,58	147,7	16
EL	€ 5,91	100	50	€ 6,08	102,9	33				€ 10,06	170,2	5
NL	€ 7,52	100	53	€ 8,51	113,2	11	€ 9,98	132,7	12	€ 11,01	146,4	36
DE	€ 6,65	100	41	€ 7,95	119,5	57				€ 11,88	178,6	17
IT	€ 6,81	100	38	€ 9,57	140,5	16				€ 7,28	106,9	29
CY	€ 4,70	100	47									
IE	€ 7,62	100	25	€ 7,94	104,2	66						
UK	€ 6,98	100	52	€ 7,66	109,7	67	€ 9,61	137,7	16	€ 12,69	181,8	28
SI	€ 5,54	100	71							€ 5,64	101,8	5
ES	€ 4,89	100	71	€ 10,12	207,0	10	€ 8,04	164,4	5			
EE	€ 5,56	100	42	€ 6,23	112,1	42						
MT	€ 6,43	100	33	€ 4,98	77,4	19						
PT	€ 3,84	100	73	€ 7,02	182,8	10				€ 10,42	271,4	8
SK	€ 5,49	100	51	€ 5,40	98,4	23						
CZ	€ 4,77	100	64	€ 4,73	99,2	5						
LV	€ 5,39	100	69	€ 4,98	92,4	5						
HU	€ 4,40	100	65	€ 4,88	110,9	23						
LT	€ 4,22	100	65									
PL	€ 4,97	100	63									
BG	€ 4,61	100	72									
RO	€ 4,66	100	65	€ 4,90	105,2	5				€ 3,93	84,3	5

- Organic pork chops are generally the most expensive type of meat, followed by origin certified pork chops.
- Animal welfare certified pork chops are available only in four countries, namely Finland, the Netherlands, the UK and Spain. Only in Finland they are slightly cheaper than regular, in the other three countries their price is higher than of the regular pork cutlets.

[152] Indexes are based on the average price for regular meat set at 100. Please note cells are empty when base sizes are below 5.

14.3 A case study: Introduction of an intermediary chicken filet the Netherlands

In the Netherlands next to regular meat and organic meat, a third category of meat has been introduced recently. This category consists of more animal friendly products, but is still not organic. The question here is **whether growth of sales of such more animal friendly intermediate products is at the expense of sales of organic products**. Preferably it is at the expense of sales of regular products and not at the expense of sales of organic products. We analyse whether price – demand interactions between these two animal friendly categories of meat products support a shift towards consumption of more animal friendly products. We use Dutch data of retail prices and sales of chicken filet. Chicken filet is the most common bought chicken product in the Netherlands and consumers buy the majority in supermarkets. The price elasticity indicates the interactions between the price and demand. Therefore, in this study we will estimate the own price and cross price elasticity of the categories regular, intermediate and organic. The results suggest that at the current state of market development and marketing to consumers intermediate and organic chicken filet products appear to be complements, rather than substitutes. A price drop of the intermediate category would not affect the demand for organic negatively.

14.3.1 Introduction

Two years ago a covenant was drawn up in the Netherlands called 'Market development for animal products with improved sustainability' between the government, the animal protection movement and food operators in the meat sector in the Netherlands. It aimed to improve the sustainability of the intensive production sectors such as the egg, chicken, pork and veal sector and to stimulate the use of more animal friendly production methods. The covenant's objective was to raise the sales of more animal friendly products, but still not organic, with 15% per year. In the following we will name this category of meat products the intermediate category.

Sales in 2009 and 2010 show that the objective was reached. The growth rate of the intermediate was 89% in 2009 and 97% in 2010 (Monitor Duurzaam Voedsel 2011 prepared by the Dutch Ministry of Agriculture). Market developments were supported by the introduction of a consumer label for more animal friendly products. This label was the initiative of the Dutch animal welfare protection movement. The label shows one, two or three stars for 'Beter Leven' (Better Life) depending on the level of improvement. Regular products have no star, organic products are allowed to claim tree stars, and intermediate products one to two stars depending on their level of animal friendliness.

14.3.2 Data

Data provided by SymphonyIRIGroup about the prices and sales of regular chicken filet, intermediate chicken filet and organic chicken filet were used. Figure 157. gives an overview of the chicken products in the intermediate category included in these data. 'Volwaardkip' was the first chicken with a one star Better Life label and available in supermarkets Jumbo, Coop, Jan Linders and Albert Heijn. Free range chicken (IKB scharrel certification) was in the market for long time already, though hardly available through the supermarket channel. Label rouge chicken filet was also already long available, but was awarded with 3 stars in 2009.

Figure 157. Intermediate chicken products available in Dutch supermarkets

Intermediate chicken products available in Dutch supermarkets		
Name	Better Life stars	Star(s) since
Volwaardkip (barn chicken, covered outdoor space)	*	June 2007
Scharrelkip (free range barn chicken, covered outdoor space)	*	January 2010
Maisscharrelkip (free range chicken fed with corn)	**	September 2008
Label Rouge	***	2009[a]

Source: Jaarrapport Beter Leven kenmerk 2007-2010. [a] Label rouge label has been introduced for chickens already in 1965 but received three stars in 2009.

The data include weekly sales volumes and prices for chicken breast filet from Jumbo, Plus, Super de Boer en Albert Heijn supermarkets during 2007 – 2011 (week 4). Shares are calculated based on the Euro sales levels across the main chicken filet segments. The shares do not include á la minute and chicken thigh filet, because data for these products were not present for all categories. The data are summarized in Figure 158.

Figure 158. Descriptive Statistics for Chicken Filet Data

Descriptive Statistics for Chicken Filet Data					
Variable	**Minimum**	**Median**	**Average**	**Maximum**	**Standard deviation**
Total sales per week (euro)	2,627,636	3,134.999	3,396,439	5,675,216	663,440
Organic sales (share of total sales)	0.0170	0.0329	0.0319	0.0428	0.0056
Regular sales (share of total sales)	0.9535	0.9639	0.9649	0.9805	0.0061
Intermediate sales (share of total sales)	0.0016	0.0032	0.0032	0.0086	0.0009
Organic average price (euro/kg)	18.85	23.48	23.00	23.96	0.98
Regular average price (euro/kg)	8.37	9.12	9.13	9.72	0.29
Intermediate average price (euro/kg)	9.00	10.25	10.05	10.63	0.48

The data before 2008 included a number of anomalies that lead to the average prices of the regular chicken to be biased upwards, therefore the sample was restricted to 2008 week 1 to 2011 week 4 (Figure 159.). Organic chicken filet is just over twice as expensive as the other varieties, with the intermediate filets being priced at a small premium to regular filets. A price reduction of several labels within the category organic, specifically 'bio plus', resulted in a lower average organic price since 2010. Organic chicken filet prices are high, because of higher primary production costs and because of the 'valuation-of-the-whole-bird' principle. In 2008 primary production costs for organic chickens in the Netherlands were €2.17 per kg (Vermeij & van Horne, 2008), about two and a half times as high as the costs of €0.88 per kg of regular chickens (Bont et al, 2009).

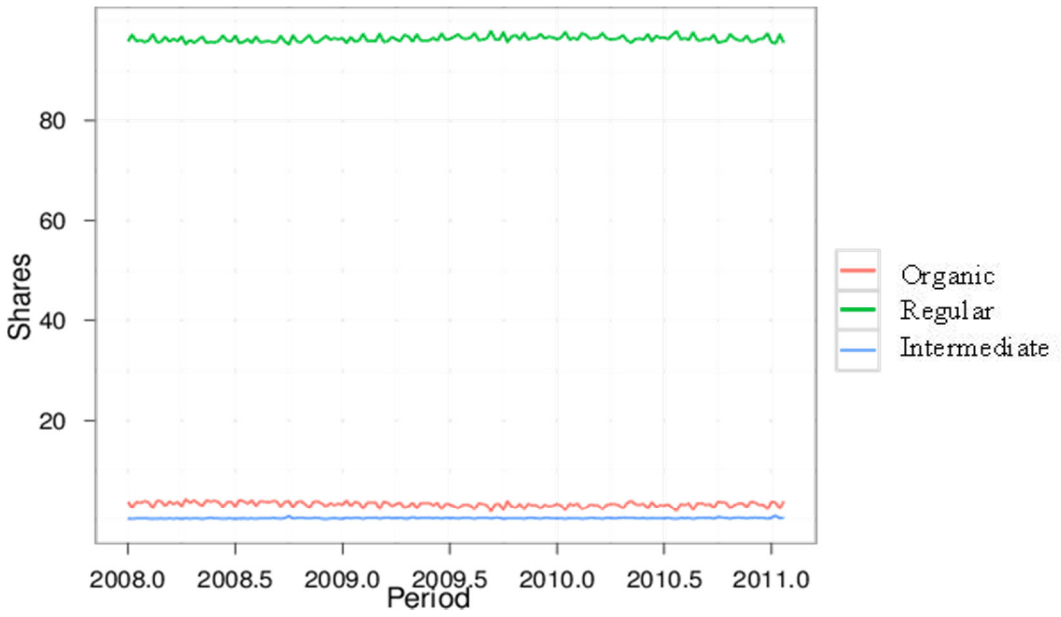
This price difference at primary production is even larger at consumers due to the 'valuation-of-the-whole-bird' principle. Generally Dutch consumers only buy the breast filet of an organic chicken. The rest of the chicken is exported to other countries, mainly to third countries in Africa, Middle East, Asia and to Russia.

Consumers in these countries do not recognize the additional value of organic above regular. Therefore, they are not willing to pay an organic price premium. So, these parts of organic chickens are sold in third countries for the regular price. The additional production costs of organic chickens must thus be fully compensated by the additional price of products sold in the Netherlands, i.e. chicken filet. This results in an organic chicken filet price of about €10 per kg higher than the regular chicken filet price.

Figure 160. shows that regular chicken filet dominates the market in the Netherlands and that the market shares of organic and intermediate filets have been quite steady since 2008.

Figure 159. : Price Series of regular, intermediate and organic chicken filets in the Netherlands 2007-2011

Figure 160. Market Shares of regular, intermediate and organic chicken filets in the Netherlands in 2007-2011



14.3.3 Method

The Almost Ideal Demand System (AIDS) is presented in Deaton and Muellbauer (1980). This is a system of equations for the market shares and each equation is linear in the logs of prices (p_j) and expenditure (x) and takes the following form:

$$w_i = \alpha_i + \sum_j \gamma_{ij} \ln P_j + ß_i (\ln x - \ln P) \qquad (1)$$

in which w_i are the market shares, so in our case the shares for organic, intermediate and regular products, ln P is a price an index and x the expenditure on chicken filet. The Marshallian price elasticities (e_{ij}) can be calculated from this formulae:

$$e_{ij} = - \delta_{ij} + \gamma_{ij} / w_i - ß_i \alpha_j / w_i - (ß_i / w_i) \sum_k \gamma_{kj} \ln P_k \qquad (2)$$

in which δ_{ij} = 1 if i=j and 0 if otherwise.

The Marshallian price elasticities are calculated because we model uncompensated price changes.

The estimation technique used here is that of Blundell and Robin (1999). This technique uses an iterative least squares estimator rather than a linear approximation. The iterative least squares allows a simple estimation of the non-linear terms in the price index in a consistent and efficient manner. It negates the requirement of a linear approximation of the translog functions that has been used. This approach is possible as the structure of the variables of interest is conditionally linear. Details are given in Blundell and Robin (1999).

The starting point for the estimation algorithm is a simplifier Laspeyres price index. This is used to give a starting value for the estimation of the translog price index which the estimation uses. The equation for the price index:

$$\ln P = \alpha_0 + \sum_k \alpha_k \ln P_k + \frac{1}{2} \sum_k \sum_j \gamma_{kj} \ln P_k \ln P_j \qquad (3)$$

The estimation uses $\alpha_0 = -3.25$ within the translog function estimated using the approach of Michalek and Keyzer (1992). However estimations with $\alpha_0 = 0$ show little real difference. Standard errors and results on t-statistics are presented on the elasticities. Unit root tests were inconclusive on the data and the residuals, with inconsistent results. Given this and the fact that over-differencing can degrade the estimates of the standard errors, the Iterative Linear Least squares estimate was used without adjusting the standard errors.

Two models are tested. In the first model theoretical based restrictions are imposed on the system of equations (1). These restrictions are:

Homogeneity assumption: $\sum j \gamma_{ij} = 0$

Symmetry assumption: $\gamma_{ij} = \gamma_{ji}$

Adding up assumption: $\sum \alpha_k = 1$, $\sum ß_k = 0$ and $\sum i \gamma_{kj} = 0$

In the second model the homogeneity assumption and the symmetry assumption are relaxed.

14.3.4 Results

The following sections give the preliminary results. These were estimated using SPSS (Henningsen, 2010; R Development Core Team, 2011).

Restricted Model

Overall the fit on each of the shares was acceptable, though the intermediate share was not very high. The R-squared for the intermediate share is 0.36, though this is not critically low. The R-squared for the organic expenditure share and the regular share are 0.71 and 0.72. Figure 161. presents the uncompensated price elasticities calculated according to the equations (2). Figure 162. provides the standard errors.

Figure 161. Marshallian price elasticities

Marshallian price elasticities			
	Regular average price	Intermediate average price	Organic average price
Regular Share	-1.024***	0.005	-0.010**
Intermediate Share	2.409	-0.763	-1.758**
Organic Share	0.501***	-0.176**	-0.505***

*Asterisks represent a standard t-test against the null hypothesis that the coefficient equals 0. *** = 1% significance, ** = 5%.*

Figure 162. Marshallian price elasticities standard errors

Marshallian price elasticities standard errors			
	Regular average price	Intermediate average price	Organic average price
Regular Share	0.009	0.007	0.004
Intermediate Share	2.283	1.586	0.796
Organic Share	0.128	0.079	0.125

The own price elasticities are of the *correct* sign, though the intermediate is not significantly different from zero. Of the theoretical checks of the AIDS system using this model and data, the adding up criteria is false, likewise homogeneity test is also false. The symmetry test is fulfilled and the monotonicity condition is fulfilled in 100% of cases. Concavity conditions are met in 71% of cases. These results suggest that an unrestricted model is worth investigation.

Unrestricted AIDS model

The following results are associated with a model that relaxes the homogeneity and symmetry assumptions. It keeps the same α_0 as the restricted model. The symmetry condition is failed in addition to those of homogeneity and adding up. The R-squared of the shares are 0.76, 0.76 and 0.41 for organic, regular and intermediate products respectively. It is noticeable that all the R-squared have risen by about 5% point. It is possible to consider the two models and to test whether they are significantly different using a Likelihood Ratio-test. The results are presented in Figure 163. The statistic is tested against a χ^2_3 distribution. The statistic is clearly significant at any level, suggesting that there is a significant difference between the models with the unrestricted model fitting the data better. Using this in conjunction with the R-squared one might consider the main problem with the restricted model to be the intermediate, perhaps because it is relatively small.

Figure 163. Likelihood Ratio-Test of the restricted and unrestricted model

Likelihood Ratio-Test of the restricted and unrestricted model					
	Degrees of freedom	Log Likelihood	Degrees of freedom	Chi-squared statistic	P(>Chisq)
Restricted	10	1629.43			
Unrestricted	13	1656.87	3	54.87	0.00

The elasticities and the results of the t-statistics are presented in Figure 164. Figure 165. presents the standard errors. All own price elasticities are of the right sign, though the intermediate own price effect is not significantly different from zero. From the equation for the intermediate share the price of the regular product is only significant effect and the intermediate is found to be very elastic to price changes of the regular product. The share for regular is little but significantly affected by price changes in the intermediate, but the cross price elasticity of the organic product is not found to be significantly different from zero. In the equation for the organic share both cross price effects are significant. Price change of the regular product has positive effects on the sales of the organic filet products. Price rises in intermediate products have however a negative effect on the consumption of organic products.

Figure 164. Marshallian uncompensated price elasticities

Marshallian uncompensated price elasticities			
	Regular average price	Intermediate average price	Organic average price
Regular Share	-1.038***	0.036***	-0.002
Intermediate Share	2.518***	-0.130	-0.234
Organic Share	0.908***	-1.180***	-0.919***

*Asterisks represent a standard t-test against the null hypothesis that the coefficient equals 0. *** = 1% significance, ** = 5%.*

Figure 165. Marshallian uncompensated price elasticities standards errors

Marshallian uncompensated price elasticities standards errors			
	Regular average price	Intermediate average price	Organic average price
Regular Share	0.013	0.007	0.006
Intermediate Share	0.902	0.533	0.479
Organic Share	0.364	0.210	0.179

So these results suggest that regular and intermediate products are substitutes, like regular and organic products. But the relation between the organic and the intermediate products appears to be more of a complementary nature. At least price effects of the intermediate would move the shares of organic and the intermediate in the same direction and not at the cost of intermediate category. In this way the intermediate category would not 'eat' the organic share.

14.3.5 Discussion

The equations for the shares of the different categories of chicken filet were based on sales data of chicken filet as the only category. A disadvantage of this approach is that the result of the own price elasticity of the regular category tends to be -1, because the category is around 95% in share. However, because we were primarily interested in the interaction between the categories and particularly in the interaction between the organic and the intermediate, the approach is still useful. Overall, the fit on each of the shares was acceptable, though the intermediate share was not very high. The R-squared of 0.4 however is not critically low.

This study is the first quantitative analysis of interaction between three categories of poultry and indicates that organic and intermediate products appear to be complements rather than supplements for consumers. The market share for the more animal friendly - but not yet organic- products however is still very small. So the interaction effects may change over time as the market matures. The experiences of retailer Jumbo in the pork meat sector introducing 'Jumbo Bewust Varkensvlees' (as intermediate category) in 2007 point however in the same direction: sales of the intermediate category more than doubled, without hurting the organic sales (Food and Nutrition Delta, 2011).

The market share for the more animal friendly, but not yet organic, chicken filet is still small and new products have been introduced over the period studied. The results of this study suggest that at this stage of the market development and the way the products have been presented to consumers **the intermediate and organic chicken filet products appear to be complements, rather than substitutes. This means that a price drop of the intermediate category would not affect the demand of organic negatively.**

14.4 Prices: the consumer perspective

Research shows that **consumer prices react slowly to price changes at other levels of the supply chain** (Meyer & Cramon-Taubadel, 2004; Peltzman, 2000; Frey & Manera, 2007). This finding is also supported by two European Commission studies on market prices of food (EC, 2008c; EC, 2009d).

European integration had a small impact on price convergence in the EU in general and for food (Dreger et al., 2007; Deutsche Bundesbank 2009). **The consumer prices of specific meat products such as organic exceed consumer prices for regular meat products. This is due to higher production costs and might also be caused by the 'valuation-of-the-whole-animal-principle', whereby only parts of an animal can be sold as organic**. More information on this aspect is available in the case-study on Dutch chicken fillet.

14.4.1 Consumer perception of affordability of meat

In 2009, a majority of EU consumers considered the meat at their retailer to be relatively affordable with 60% of consumers agreeing that this is the case. 68% of consumers in the EU12 countries were of this opinion as opposed to 58% of consumers in the EU15 countries. This could be linked to the fact that, according to the national stakeholder interviews, consumers in the EU12 tend to focus on more affordable products.

Further to the general affordability of meat and meat products, the majority of EU consumers (65%) also agree that their retailer offers **a wide enough choice of meat at different prices**. Only 4% disagreed. Once again, respondents in the EU12 countries are more likely to agree (73%) than respondents in the EU15 countries (63%). Consumers in Sweden (12%) and Denmark (17%) are the most likely to disagree with the statement.

Besides, two-thirds (66%) of EU consumers are satisfied overall with the retailer's prices offering reasonable value for money, while 2% are dissatisfied. Once again, consumers in the EU12 countries show higher levels of satisfaction (72%) than consumers in the EU15 countries (64%). Levels of dissatisfaction remain modest across the Member States.

However, these findings contrast with the results of the 2011 consumer survey. **Only 20% of consumers were satisfied (score 8 to 10 out of 10) with the price of the meat available in their country, while 27% were dissatisfied (score 0 to 4)**.

14.4.2 Impact of price levels on consumer intentions and behaviour

Many consumers perceive specific meat and meat products as more expensive than regular options. This is particularly the case for organic meat (Brennan, 2003). However, the price difference varies across meat type and between Member States.

Some segments of consumers show interest in paying more for specific types of meat and meat products. For example, in a survey carried out in 2000, 46% of European consumers claimed to be willing to pay substantially more for ethical products (MORI, 2000). In 2008, 75% of EU consumers agreed that they were ready to buy environmentally friendly products 'even if they cost a little bit more' (Special Eurobarometer 295, 2007).

However, intention does not always translate into behaviour. For example, a 2004 study (Scholderer, Asger Nielsen, Bredahl, Claudi-Magnussen & Lindhal) shows that, although consumers' willingness to

pay was higher for organic or free-range products than for conventional ones, they were only ready to pay a small premium for these products.

Further to this, **out of the 75% of EU consumers willing to pay more for environmentally friendly products, very few actually purchased environmentally friendly products** as shown on Figure 166. (Ipsos, 2009).

Figure 166. Willingness to purchase and purchases of environmental products

Purchasing environmental products			
	Willingness + action	Willingness + no action	No willingness + no action
% of total sample	15%	59%	18%

(EC, 2009)

Quite large variations between intention and behaviour are detected between Member States. In all countries, a larger proportion of consumers state they are willing to pay more for environmentally friendly products than the proportion that actually purchases them. The discrepancy between the two groups is the highest in Greece and Cyprus whereas consumers in Denmark and Sweden are the most likely to report that they have acted according to their intention. These findings match the results of the 2011 consumer survey. Indeed, among consumers who are aware of organic meat and who say they would like to buy it more often, only 40% had purchased organic meat in the past month. Several national stakeholders also mention that the structure to produce organic products is in place in many countries, but that this market remains small due to a limited demand from consumers.

This links to the research findings that **one of the main obstacles to specific product purchases is higher prices**. Organic meat is often seen as a luxury good because of its price and treated differently from conventional meat (Bonti-Ankomah & Yiridoe, 2006). Similarly, the most frequent reason given by consumers for not buying organic meat more often in the 2011 consumer survey is the price. Organic meat prices are linked to high production costs. These costs are in turn affected by several factors, among which organic rules, small-scale production and the valuation-of-the-whole-animal principle. **Increasing the willingness to pay through reliable quality signalling systems that provide an ethical value to the product may be a way to overcome this problem** (Napolitano et al., 2010).

The same pattern can be identified across different types of specific products. For example, research by Olaizola Tolosana, Whebi & Manrique Persiva (2005) shows that high prices are an obstacle to the purchase of quality certified beef. 38% of respondents who did not regularly purchase this product mention high prices as a reason, 27% availability at their usual store and 23% the difficulty to find the product. Looking at factors that would positively influence consumer purchases, respondents mentioned a lower price (49%), better guarantees (40%) and more information (31%).

Besides, the relationship between price and perceived quality is not straightforward. It is influenced by other extrinsic cues, variations in price and quality, and consumer awareness of these product characteristics (Zeithaml, 1988). An illustration of this ambiguous relationship is that less expensive beef is perceived as less safe (Verbeke et al., 2010).

Finally, a study carried out by Latvala (2010) demonstrated that **trust in information sources increases consumers' willingness to pay**. In other words, information appears to play a central role when it comes to the impact that price levels have on consumers.

This is supported by the results of the 2011 consumer survey: **a sizeable minority of consumers mentions a lack of information as a reason not to buy specific meat types more often**. This is particularly the case for environment or climate certified meat and religious slaughter meat, with respectively 34% and 35% choosing 'I am not sufficiently well informed.'

V. Conclusion and recommendations

This study aimed at analysing consumers' experiences on the meat market. As such it investigated the factors impacting the functioning of this market in order to identify areas for improvement. In particular, choice of retailer, product choice, prices, meat waste, safety, quality, health, sustainability, animal welfare, origin and consumer behaviour were examined on the basis of a theoretical model of consumer decision making that had been adapted to the typical structure of the meat market. Furthermore, the market was explored from several angles. First of all, in-depth desk research using secondary analyses was conducted to further develop the analytical framework and put pre-existing research into a fresh perspective. Using this developed framework, a consumer survey was conducted in all the 27 Member States, amongst 13,477 people with a particular focus on aspects that had not been sufficiently developed in previous studies. Next to this, a mystery shopping exercise was undertaken to gather data on the availability of products and information items, and to collect the prices of 10,570 different meat products across EU countries and purchase channels. A stakeholder consultation collated their views on the consumer survey results. Based on the findings of this mixed mode study, conclusions and key areas for improvement in the market were identified. The policy recommendations concern general consumer policy, especially in actions related to information, as well as specific policy areas such as retail concentration, price formation and health. They are presented along each of the topics in the following paragraphs.

INFORMATION SEEKING AND INFORMATION PROVISION

The first findings presented here focus on two key aspects in the market of meat and meat products in Europe: information seeking (on the consumer side) and information provision.

The majority of European consumers use a limited number of sources to inform themselves about meat. The consumer survey showed that on average, EU consumers use only 4 of the 12 **information sources** listed. In addition, considering the sources which are used most of the times, just above two thirds of consumers look at labels on the products themselves (68%), just above half at the labels on the shelves or ask the retailer staff (respectively 59% and 56%). Existing research can explain these results as some consumers face information overload or are confused by what they learn about different aspects of the meat market. In addition, consumers have the highest level of trust in messages from supply chain actors that are closest to them (e.g. retailers) or independent bodies. However, previous research indicates that consumers are not very satisfied with the trustworthiness of staff in the meat market; hence this is an area for improvement.

Also consumers look for 5 **information aspects** on average, focusing mainly on price, use by/best before date and country of origin information provided on meat or meat products. The survey results showed that consumers are less likely to look for information on quality certificates relating to origin, organic and animal welfare certifications, nutritional values and nutritional and health claims. The consumer study and the mystery shopping exercise in particular revealed that information availability on use by/best before date, price per unit and country of origin of meat varies by country and by retail channel. For example, price per unit information had the highest level of availability in Lithuania (for 99.6% of meat assessed by the mystery shoppers), Romania, Latvia and Bulgaria (all 98%), while it was least available in Sweden (68%) and the Czech Republic (79%). This information is available for the vast majority of products in hypermarkets, supermarkets and convenience stores, but for only 68% of products assessed in butchers. However, the information aspects that consumers look for are consistent with the availability of information in their country. Besides, key information remained widely available overall: the use by/best before date was available on 90% of the products assessed by the mystery shoppers, the price per unit was found on 92% and the country of origin on 86%.

European consumers in general have a low level of **understanding and knowledge** about the meat market. The consumer survey reveals that consumers seldom know the meaning of the Protected Designation of Origin (PDO) logo. Furthermore, there is limited awareness of the meaning of the 'low fat' claim and 'best before' date. Knowledge of different types of meat also appeared limited: consumers are familiar to a large extent with the types of meat where country of origin is specified or certified, but less so with other meat types (e.g. organic or animal welfare certified), and this for less than half of them. It is also notable that reports in the media impact on consumer actions, with one in five consumers changing their eating habits due to **media coverage**.

Consumers' efforts to inform themselves about aspects of meat and meat products which could help them make more informed choices remain limited and their knowledge and understanding of the meat market is low. Therefore, it is recommended that future policy focuses on **improving information-seeking strategies and information provision** for consumers in Europe. Firstly, it would be important to invest in information campaigns and/or consumer education, including at schools, on topics such as food safety, quality assessment, meat preparation, storage and waste. This should be done with the aim of

encouraging consumers to use a wider range of information sources and to look for more information aspects. These efforts should use the input of the meat market's stakeholders, as the results of the stakeholder consultation clearly indicate that comprehensive approaches which bring together a range of stakeholders are more likely to be effective.

The results of the study show that the availability of information differs by country and purchase channel, pointing to the fact that consumers in different countries who are shopping in different retailers may be provided with different information aspects.

Also, **branding** is an integral aspect of the meat market, even though meat is often purchased unbranded and treated as a commodity item. From the point of view of the industry, branding may be an important way to add value to meat, to differentiate one product from another in order to emphasise competition on aspects other than price. More importantly, branding also allows the identification of the responsibility for controlling and delivering the quality characteristics of the meat. Beyond the manufacturer's own branding, independent and credible certification can also reassure consumers about meat quality (Bernués, Olaizola and Corcoran, 2003) and help to differentiate meat products.

As such, **standardised European information** is important as it increases consumer choice in the meat market by providing an indicator of quality for meat that is unbranded. The use of standardised information (also voluntary logos) is beneficial to the several stakeholders involved. First of all, **manufacturers** are able to use such logos to market their products (Young, 2002). When this logo is a quality label that is also reliable, it will enable the manufacturer to position the product in the market accordingly and consumers may consider paying more for such a product (Acebrón and Dopico, 2000). Labelling could also give an incentive to manufacturers to improve the 'nutritional value' of food. For **consumers,** the existing European logos can be a signpost for quality (Young, 2002; Bernués, Olaizola and Corcoran, 2003). **Policy makers** should keep in mind that there are different types of consumers, and that both emotional and rational drivers play a role in the consumers' decision making processes. Some buyers are motivated by ethical reasons, whilst others focus more on price, habit, health reasons, product appearance or the product's origin. Policy makers should take these groups into account when providing information to consumers, by ensuring that their logos can be clearly understood by all consumers.

EXAMPLES OF GOOD PRACTICE

In **Austria,** consumers use more information sources on average than consumers in other EU Member States, when purchasing meat or meat products. Therefore, the average Austrian consumer has a higher level of knowledge than in the rest of Europe - as evidenced by a previous survey on knowledge of organic farming and ecological non-food product logos, which is in line with the results on consumer understanding of the best before date and the low fat claim covered in this study's consumer survey. Also, the mystery shopping results show that the basic labelling items (best before date, price, and country of origin) are available in Austria.

A good practice in terms of the availability of animal welfare certified meat can be observed in **the Netherlands**. This may be linked to the presence of an animal welfare political party and several animal welfare action groups in this country. Animal welfare labeling in the form of a star system ensures that consumers are well-informed. This finding is also corroborated by a special Eurobarometer on the attitudes of EU citizens towards animal welfare (2007)[153].

[153] http://ec.europa.eu/public_opinion/archives/ebs/ebs_270_en.pdf

AVAILABILITY AND PURCHASE

Next to the conclusions on information-seeking and information provision, the study also provides insights into the availability of the different types of meat and meat products in the EU, consumers' satisfaction on the availability of meat, the purchases that European consumers make, as well as their intentions for the future, and the purchase channels they use.

The mystery shopping exercise shows that the availability of **specific meat types** varies widely across Member States and purchase channels. In this exercise, regular, origin certified and organic meat were the most commonly available for assessment, whilst environment/climate certified and religious slaughter certified meat types were the least available. Information on certain aspects could sometimes be found together, e.g. rearing standards labelling on organic products. Overall, supermarkets and hypermarkets had a wider availability of specific meat types than butcher's shops, convenience stores, grocery stores, markets and farms. The majority of EU consumers (58%) are satisfied with the availability of meat in general, 44% with the availability of meat produced in the consumer's country and 34% with the availability of meat produced in the EU. However, regarding the availability of specific types of meat, more consumers are dissatisfied than satisfied. The lowest satisfaction scores can be observed for the availability of environment/climate certified meat and animal welfare certified meat. This lack of availability of specific meat types seems to impact on consumer choice and is one of the obstacles that prevent consumers from being able to change their meat purchases.

Concerning **meat purchases,** the findings of the study show that most consumers buy a range of meat and meat products. Consumers tend to purchase **a range of products**: 93% of respondents have purchased meat products (e.g. ham, salami) in the month prior to the survey, 89% bought fresh chicken and 79% fresh pork. Beef was mentioned by 67% of consumers, followed by turkey (43%), veal (36%) and lamb (26%). Pre-packaged meat or meat products had been bought by 88% of consumers in the past month, while non-packaged meat or meat products had been bought by 75%.

With regard to specific meat types (such as origin or environment/climate certified meat), at least one in three consumers **intends** to purchase each of these products more often: the only exception is meat slaughtered according to religious rites, with just 21% of the respondents intending to buy it more often. For all meat types, actual purchase figures are significantly lower than declared purchasing intentions. A good example is animal welfare certified meat: awareness levels for this specific meat type are higher (44% of consumers are aware of it), but there is a clear gap between purchase intention and behaviour. Only 22% of consumers have purchased it in the past month, whereas 40% of consumers say they would like to buy animal welfare certified meat more often but encounter obstacles such as high price, a lack of information and availability. One in five of the products assessed by mystery shoppers in the EU displayed an animal welfare label. It can hence be observed that in relation to specific meat types consumers display **a gap between intention and behaviour.**

When consumers were asked why they do not buy specific meat types more often, the most frequent answer was 'It is too expensive' for all meat types except environment/climate certified and religious slaughter certified meat, for which respondents were more likely to answer 'I am not sufficiently well informed.' **Prices, availability and information therefore seem to largely explain the gap between intention and behaviour.** This finding is in line with low levels of consumer awareness for some meat types and that prices collected by the mystery shoppers were on average higher for specific meat types than for regular meat (with no further specifications). Organic meat was on average 66% more expensive, origin certified meat 19% more expensive and animal welfare certified meat 20% more expensive.

With regard to **purchase channels**, consumers were asked for the 'main' retailer where they purchased meat or meat products, and which retailer that they 'preferred' to use; 40% use a supermarket as their main retailer, followed by butchers (25%) and hypermarkets (18%). Smaller proportions mention grocery or convenience stores (7%), discount stores (6%), farms (2%) or markets (2%). Most consumers use a range of retailers for their meat purchases, aside from their main retailer. Consumers whose preferred retailer is also their main retailer mention a suitable choice of products (58%), suitable prices (56%) and convenient access (56%) as reasons for buying at their current retailer. However, in reality, consumers' choice of retailer is limited in some cases.39% of consumers do not use their preferred retailer as their main retailer, due to high prices (mentioned by 36% of those), being able to do all their shopping in one go at their main retailer (32%) or because their preferred retailer is too far away (31%). Consumers whose preferred retailer was too far away or those who do not know where to find such a retailer represent 15% of all consumers surveyed. Furthermore, existing research highlights a trend towards retail concentration in the EU, with the top three food chain retailers accounting for over 63% of market share in each country, and over 90% in Luxembourg, Cyprus and Sweden. This increased concentration of retail highlights the need to monitor the level of competition in the retail market.

Meat purchases reflect the consumer's awareness of meat types, whereby the same meat types are known as those purchased, with meat for which the country of origin is specified coming first. This is indicative of a **preference for national or local meat** among many consumers in the European Union. Previous research shows that consumers associate origin with a number of positive attributes, including quality, safety and trust, though the impact of origin differs significantly by country. Focusing on specific meat types, **some consumers are aware of sustainability issues, but this does not always affect their behaviour**: Of the 32% of consumers who would like to buy meat less often, only a small proportion mention environmental or ethical reasons (16% each). Health, price and safety considerations are more important in this respect. When purchasing meat, sustainability-related aspects are less important to consumers than other priorities and information items. Two in five consumers want to buy organic meat more often and 29% want to buy environment or climate certified meat more often, which shows that a sizeable proportion of consumers have an interest in these products. However, whereas 49% of consumers are aware of organic meat, just 16% say they have bought it in the past month and only 24% are satisfied with its availability. These figures are respectively 15%, 4% and 18% for environment or climate certified meat. Therefore, the lower levels of awareness and purchase for these meat types reflect their lower level of availability and the fact that consumers tend to look for other information aspects.

EXAMPLES OF GOOD PRACTICE

In **Ireland**, the mystery shopping exercise showed that there is a high availability of country of origin labelling, use by/best before date labelling, nutritional value labelling, origin certifications and nutritional claims. Furthermore, consumer interest in information is higher than in the rest of the EU. These high scores for information availability and interest can be driven in part by the prevalence of online information tools in Ireland related to food labelling and nutrition[154] (e.g. explanations of how to read the labels and clarification of the basics of a balanced diet). In addition, the Irish Food Safety Authority gives clear and user-friendly summaries of food labelling information, and the Nutrition and Health Foundation implements initiatives such as the 'eat smart' week[155]. These actions help contribute to the fact that Irish consumers are more informed about the meat market than the rest of the EU.

[154] http://www.nutritionandhealth.ie/Sectors/NHF/NHF.nsf/vPages/Eat_Smart~food-labels-explained?OpenDocument
http://www.nutritionandhealth.ie/Sectors/NHF/NHF.nsf/vPages/Eat_Smart~food-pyramid?OpenDocument

[155] http://www.nutritionandhealth.ie/Sectors/NHF/NHF.nsf/vPages/NHF_Initiatives~eat-smart-week?OpenDocument

HEALTH

Another key aspect is consumers' views on the impact that consumption of meat and meat products has on health. Consumers do feel concerned about the impact the consumption of meat has on their health, however, the survey results showed that they were not satisfied with it, with a below average satisfaction score.

More than two in five survey respondents claim to eat meat more than four times a week and 29% of consumers would like to buy regular meat more often. However, 32% of consumers would like to buy meat less often, most frequently giving health as the reason for this.

At the same time, consumers have, overall, **a limited understanding** of the health topic, with only 23% correctly identifying the meaning of a 'low fat' label. Awareness and purchase levels of meat with nutrition claims on better nutritional values are also relatively low: 35% of consumers are aware, while 15% report purchasing this type of meat in the past month. Similarly, a relatively small number of consumers look for related information aspects: 31% look for nutrition claims, 18% for nutritional values and 29% for ingredients.

Desk research and stakeholder interviews also demonstrate that consumers **receive conflicting information about meat and health** and tend to be confused about this topic. For example, consumers hear that meat is important in a balanced diet and yet they also hear that high meat consumption is linked to health issues such as heart diseases or obesity. Consumers who would like to reduce their meat consumption for health reasons are more likely to be aware of meat with nutrition claims and to look for related information items. Consumers who use the media and third-party organisations as information sources when purchasing meat are likely to also look for information on nutrition (nutritional values, nutrition claims or ingredients).

In conclusion, it is very important to help consumers better understand the impact of meat consumption on health, with the recommended approach being investment in **information campaigns and/or consumer education** on this issue. According to existing studies, nutritional information on meat is a clear way of assisting consumers in their decision-making. For example, information on fat or salt content on a meat product indicates to consumers the impact that its consumption will have on their health.

SAFETY

Both existing data and the stakeholder interviews point towards a market that is highly regulated and performs well in terms of food safety. However, **consumer perceptions of the safety of meat are more negative than expert perceptions**.

More specifically, there is a relatively low level of consumer satisfaction with the safety of meat in terms of bacterial contaminations (37%), food borne diseases (34%) and residues and pollutants (28%) - between 19% and 26% of consumers are dissatisfied with each of these safety aspects. There is a low level of agreement that public authorities adequately ensure the safety of meat in their country (35% agree, compared to 16% who do not agree), that producers and retailers adequately ensure meat safety standards (32% agree, compared to 16% who do not agree), and that meat from the EU is safer than from outside the EU (32% agree, compared to 20% who do not agree). Furthermore, of the 32% of EU consumers who would like to eat meat less often, 21% would do so due to concerns about the safety of meat. However, some safety aspects are rated more positively. For example, two in five consumers (41%) agree that appropriate measures are taken in their country in case of a food risk related to meat. The same proportion agrees with the statement 'I always eat safe meat.'

Negative consumer perceptions of the meat market in the EU could reflect a **lack of awareness regarding safety and negative media coverage during food crises**. Indeed, 53% of consumers think that it is not safe to eat a meat product after its best before date. Existing research shows that many consumers are unaware of their responsibility to safely handle meat post-purchase and tend to think that the responsibility for meat safety lies only with experts and authorities. Finally, more than one in five consumers say that they have changed their eating habits after hearing a media story on meat that might be unsafe, which points to the impact of media coverage not only on safety perceptions, but also on actual behaviour.

These findings show that there is a need for **credible and easily accessible information** to promote more objective perceptions of safety levels of meat and meat products in the EU. In case of food crises, a comprehensive communication and information strategy involving all actors of the meat market is recommended. Consumer trust can be increased by conveying positive messages about the market: for example, communicating the aspects of the meat market that function relatively well, such as safety controls or product freshness.

EXAMPLES OF GOOD PRACTICE

In **Malta,** consumers agreed to a large extent with all safety statements in the consumer survey and a relatively small proportion of Maltese consumers cite safety concerns as a reason to buy less meat. Initiatives such as the Food Safety Week organised by the Environmental Health Directorate and the Health Promotion and Disease Prevention Directorate may contribute positively to this perception of meat safety in Malta. This annual event is held to promote the importance of good food hygiene and safety, with the aim of illustrating how to keep food safe, from purchase through to consumption, and it tries to educate consumers in how to handle meat best[156].

In **Ireland**, reactions to 'the Irish Pork Crisis' in 2008 are an example of a swift and effective response to a food scare. The Food Safety Authority of Ireland acted immediately to reassure the general public (e.g. the Deputy Chief Executive of the FSAI spoke on RTÉ Radio on the morning after the initial announcement).

[156] https://ehealth.gov.mt/HealthPortal/others/foodsafety_week/food_safety_week.aspx

MEAT PRICES

Pricing is also a key aspect of the meat market in Europe. Analysis of meat prices in the EU shows that there is no pattern of price convergence overall, but that prices converge within three country groupings: countries with High price levels, those with Medium price levels and those with Low price levels[157]. Based on the mystery shopping data, the average price of meat in the EU27 is €6.20 per kg and €7.38, €5.66 and €4.08 per kg respectively in the high, medium and low price country groupings. **This divergence in price levels is mostly explained by differences in comparable consumer prices**, rather than by retail concentration.

Only one in five consumers is satisfied with the price of meat, although the prices collected in the mystery shopping exercise are aligned with the GDP per inhabitant, which tends to show that meat prices are in line with consumers' financial means. Consumers with financial difficulties are more likely to say that they want to buy meat less often because it is expensive (43% of consumers with financial difficulties, compared with 26% of consumers without financial difficulties), or that they would like to buy specific meat types more often but do not do so because of high prices. **The affordability of meat is therefore an issue for a small minority of consumers.** This is the case in every country, regardless of GDP per capita. However, a larger proportion of consumers mention dissatisfaction with the price aspect rather than actively reducing their meat consumption due to high prices.

Based on the results regarding meat prices, further **monitoring of price formation** in the meat supply chain is advisable. Analysis would be needed for specific meat types in order to assess whether prices reflect high production costs or excessive margins at particular stages of the supply chain.

[157] **High price levels:** Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Sweden and the UK
Medium price levels: Cyprus, Greece, Malta, Portugal and Spain
Low price levels: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia

CONSUMER DETRIMENT FROM MEAT WASTE

Almost a quarter of the EU consumers threw away edible meat in the month before the survey (on average 3.5 times). The related average detriment for consumers who reported a financial loss amounts to €9 per month. Meat waste is generally lower in the EU12 than the EU15. Meat waste is most frequently due to storage and preparation issues that could be avoided. The issue of the meat waste and the financial detriment it generates could be addressed by education of consumers.

EXAMPLE OF GOOD PRACTICE

In **Bulgaria**, the reported proportion of meat thrown away was very low, as was the associated financial loss. Due in part to the global economic crisis, Bulgarian consumers are increasingly conscious of their purchases, leading to 30% of Bulgarians reducing their spending on meat or opting for cheaper products (The Sofia Echo, 2009)[158]. They would like to buy meat more often, and as they perceive their current frequency of meat purchases as not optimal, they pay attention not to waste any of it. Furthermore, other research indicates that there has been an increase in Bulgaria in the amount of meat and meat products that are being offered in smaller packages (BFEU, 2007). This can also lead to a reduction in meat waste by consumers, as they would purchase only the exact amount they would consume.

[158] http://sofiaecho.com/2009/04/08/702045_crisis-starts-to-change-bulgarians-consumer-behaviour

CONSUMER PRIORITIES

When purchasing meat, consumers pay more attention **to intrinsic cues** (i.e. characteristics of the meat that they can 'see' and assess themselves), than to extrinsic cues (i.e. characteristics that relate to the product but are not physically part of it, such as origin and packaging). Consumer priorities for meat purchases were measured and an importance percentage was attributed to them. Sensory cues come first (in comparison to the cross-attributes average of 5.9%, freshness reached 10.2% importance, taste 8.7% and hygienic conditions 8.4%), followed by price (reasonable price with 8.1% and affordable price with 7.9%) and origin ('produced in my country' with 7.9%). Aspects relating to safety (traceability with 6.5%, distant use by/best before with 5.6%) and specific meat types (organic, animal welfare or environmental certifications with respectively 3.3%, 4.8% and 4.8%) are relatively less important.

CONSUMER SATISFACTION

Consumers seem rather satisfied with the meat market in general, although several areas are seen more negatively, such as price and the availability of specific meat types.

Overall, 50% of consumers are satisfied with the meat available in their country, while 6% are dissatisfied and the remainder are neutral. Consumers are quite satisfied with the availability of meat in general (58% satisfied) and hygienic conditions (51%). The aspects with the lowest proportion of satisfied consumers are availability of environment or climate certified meat (18%), price (20%) and availability of animal welfare certified meat (20%). High proportions of consumers are dissatisfied with these aspects (32%, 27% and 30% respectively). Approximately half of consumers are satisfied with other aspects, such as freshness (49%), taste (48%), time before reaching use by or best before date (45%) and availability of meat produced in their country (44%).

There is slight variation in scores across EU member states. EU12 consumers are more satisfied than EU15 consumers with general availability (64% compared with 56%), availability of meat produced in the consumer's country (49% compared with 43%) and packaging (42% compared with 38%). EU12 and EU15 consumers give similar scores for taste and safety in terms of foodborne diseases. EU15 consumers are slightly more satisfied than EU12 consumers with other aspects, including hygienic conditions (52% compared with 45%) and the availability of organic meat (27% compared with 16%).

SUMMARY OF RECOMMENDATIONS

- Information provision for European consumers should be enhanced through investment in information campaigns and/or consumer education, including at schools:
    - These campaigns should aim to encourage consumers to use a wider range of information sources and to look for more information aspects when purchasing meat
    - Information campaigns should also focus on helping consumers to better understand the impact of meat consumption on health in order to guide consumer decision-making
    - Education is needed to inform consumers about the issue of meat waste and the detriment that it generates, both in financial as well as environmental terms
    - Such campaigns/provision of information should involve all stakeholders relevant to the meat market
- Credible and accessible information is needed to enable consumers to use more objective criteria in their assessment of the safety levels of meat and meat products. Conveying positive messages about the meat market will help build consumer trust
- European standardisation of information on food should be designed in a manner that it reflects consumer heterogeneity in terms of information-seeking behaviour and level of understanding
- Due to the increasing concentration of retail, there is a need to monitor the level of competition in the retail market
- Further monitoring of price formation in the meat supply chain is recommended, including analysis to assess to what extent meat prices reflect the production costs or excessive margins at certain stages of the supply chain.