iSage Regional Workshop
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Consumer trends and needs iSAGE results & recommendations

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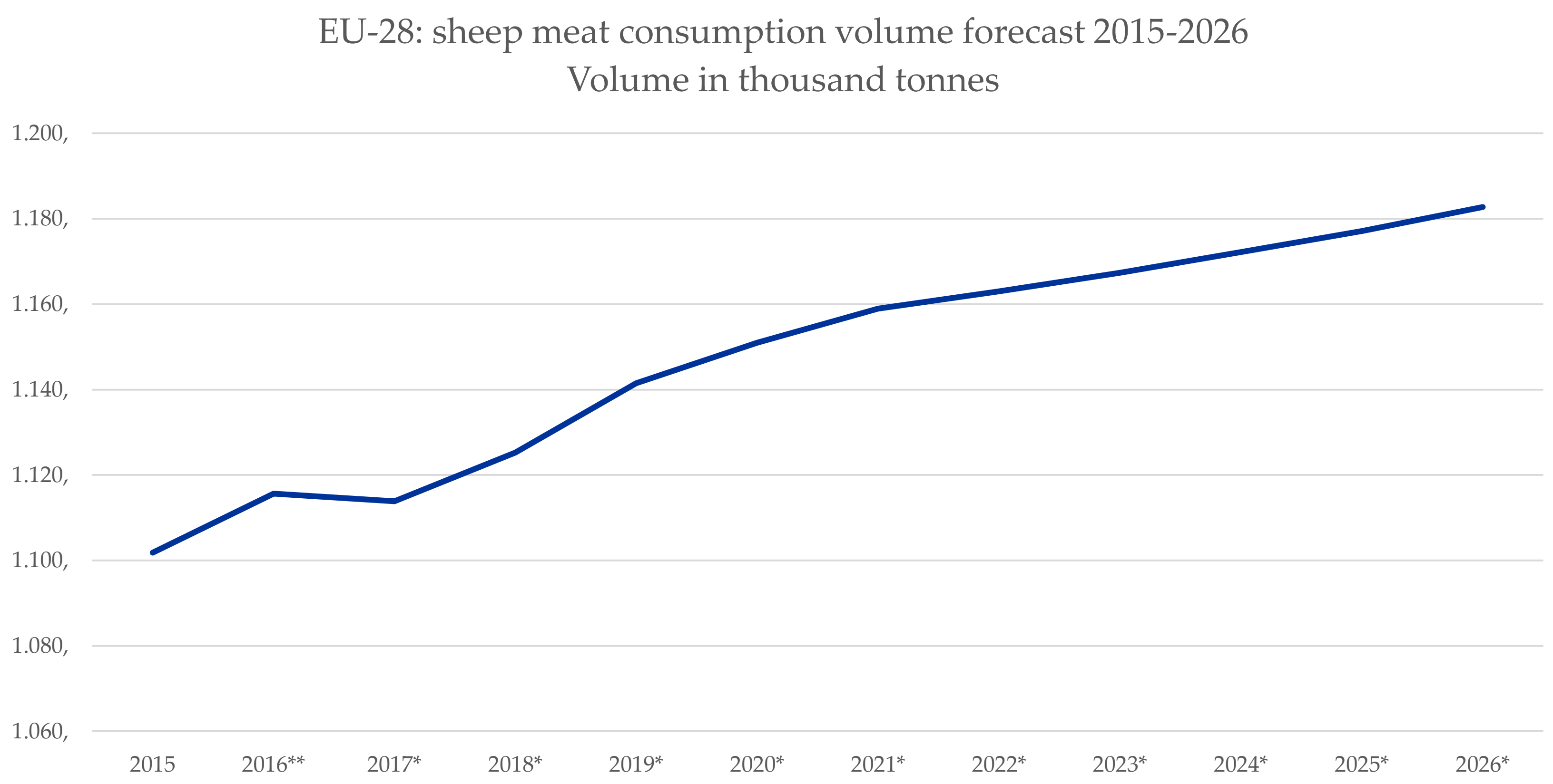
iSAGE
Innovation for Sustainable Sheep and Goat Production in Europe

Supply side: outlook is uncertain

	Sheep & Goats					
	Heads (Millions)			*As % of total ruminants (LU)*		
	1997	**2007**	**2017**	**1997**	**2007**	**2017**
Europe	180	154	151	9.9%	10.7%	11.1%
World	1736	1977	2237	10.6%	11.1%	11.7%

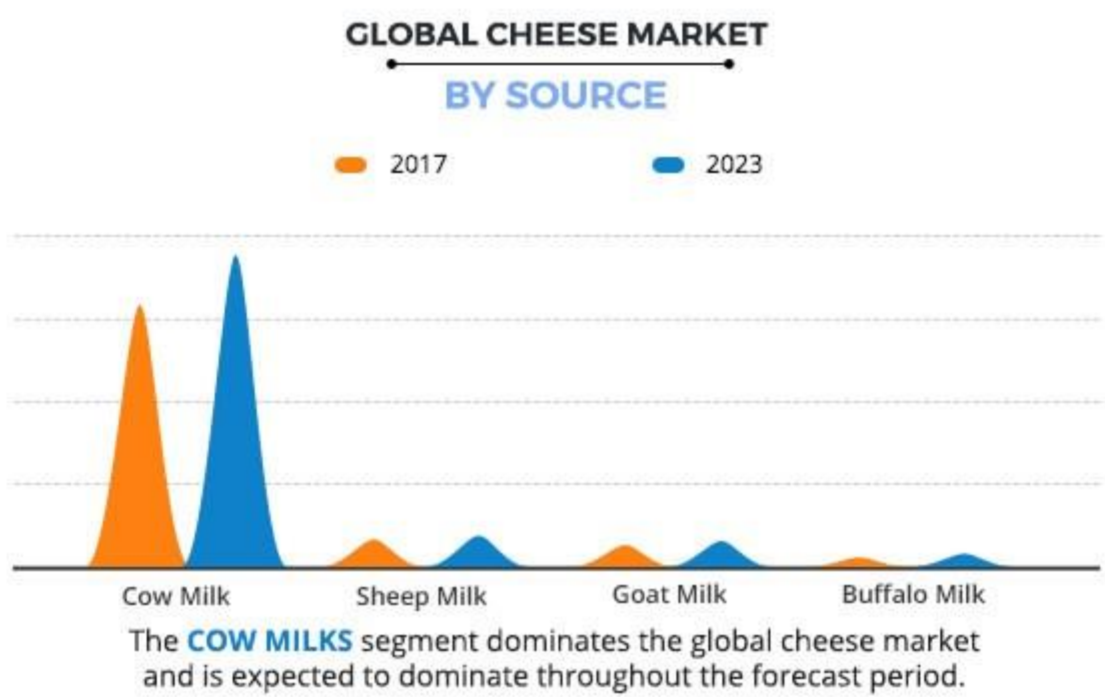
Source: FAOSTAT, 2019

Sheep Meat market outlook



Source: OECD & FAO

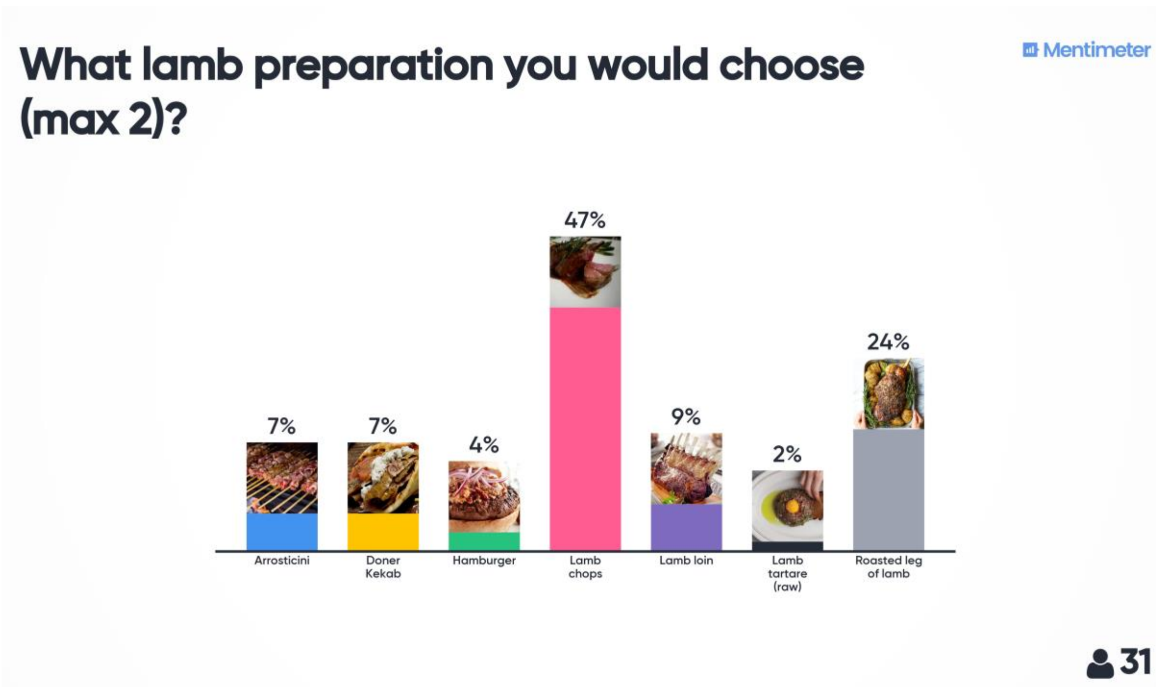
Ewe/Goat cheese market outlook: niche confirmed

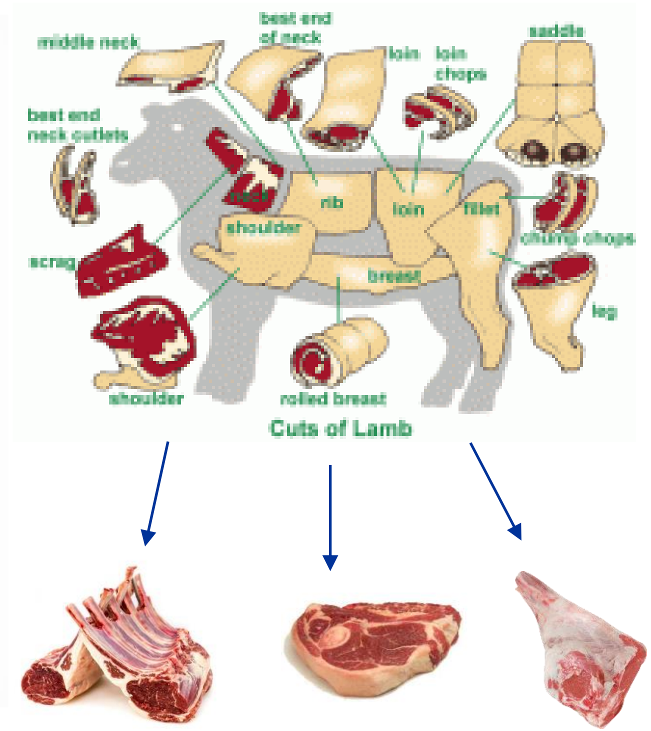


Source: Allied Market Research

Challenges for lamb meat SCs

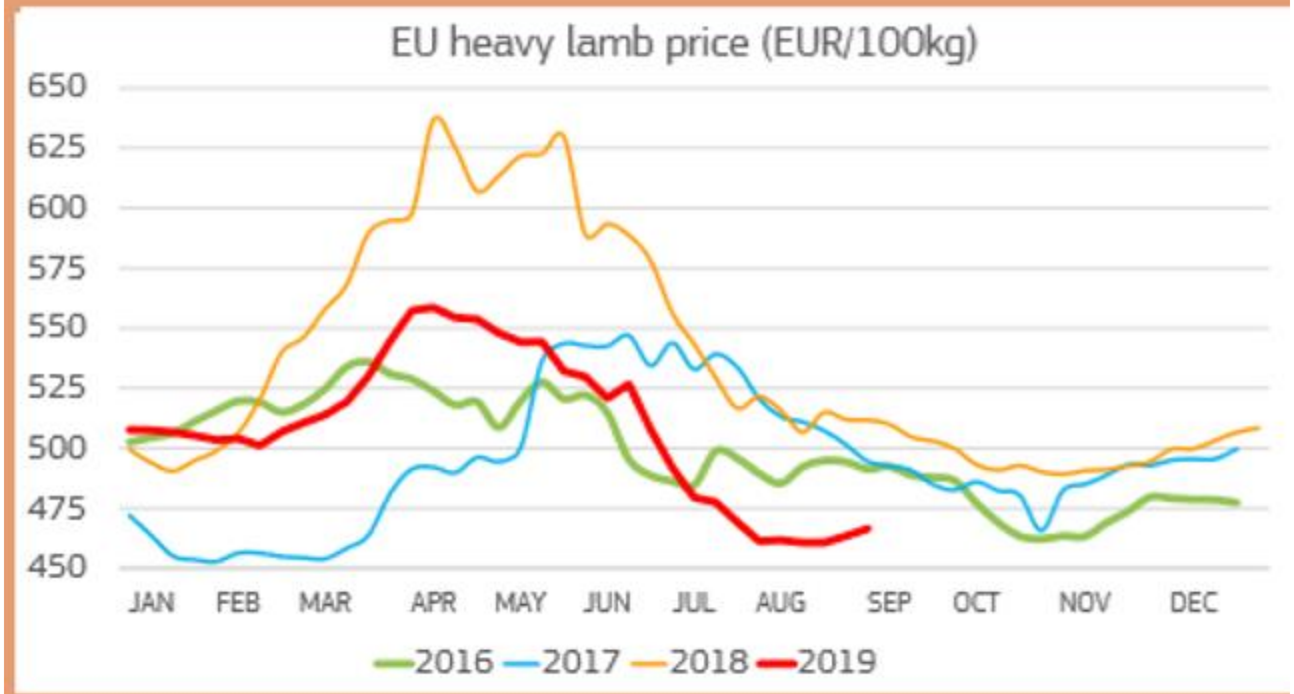
Carcase imbalance





Challenges for lamb meat SCs

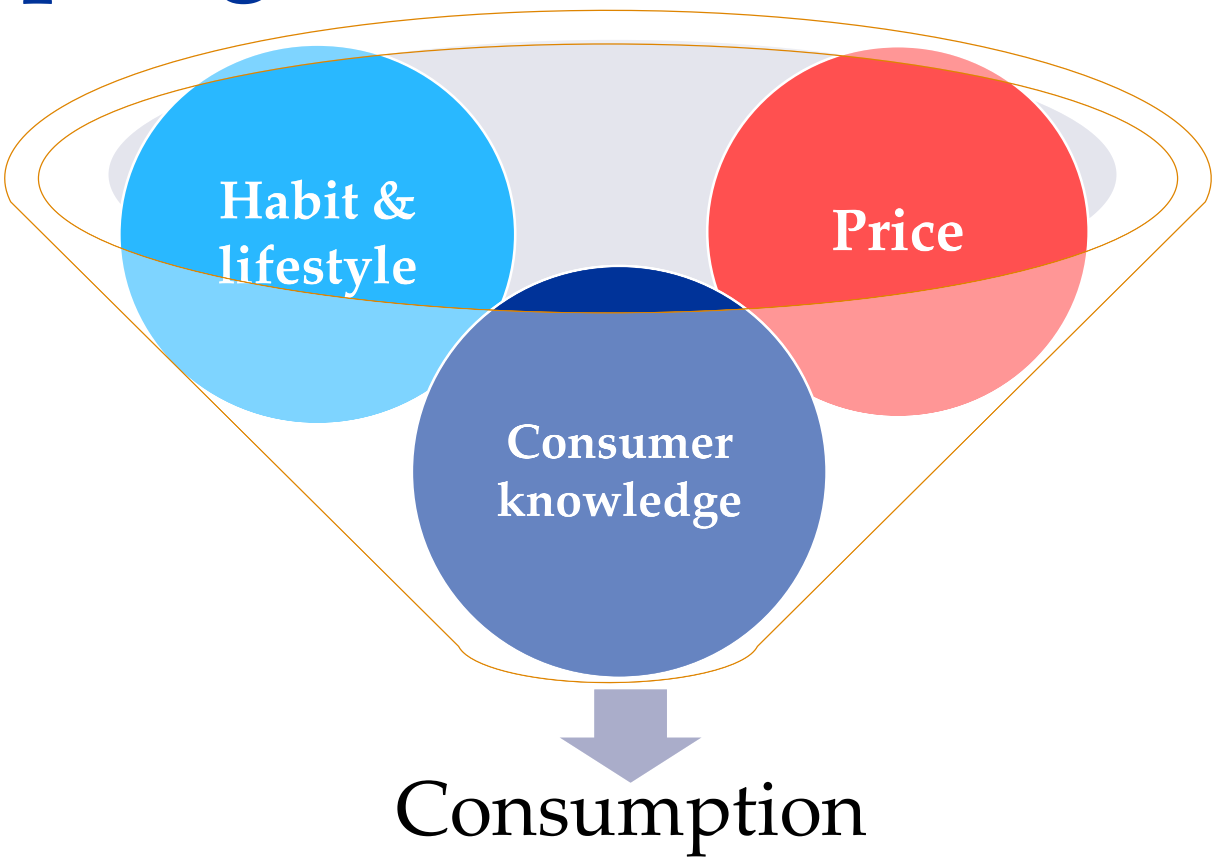
Market volatility & seasonality



Source: DG Agriculture and Rural Development, based on Eurostat

Easter
Christmas?
Eid-al-Adha (Aug)?

Retailers views: barriers to market development sheep & goat meat



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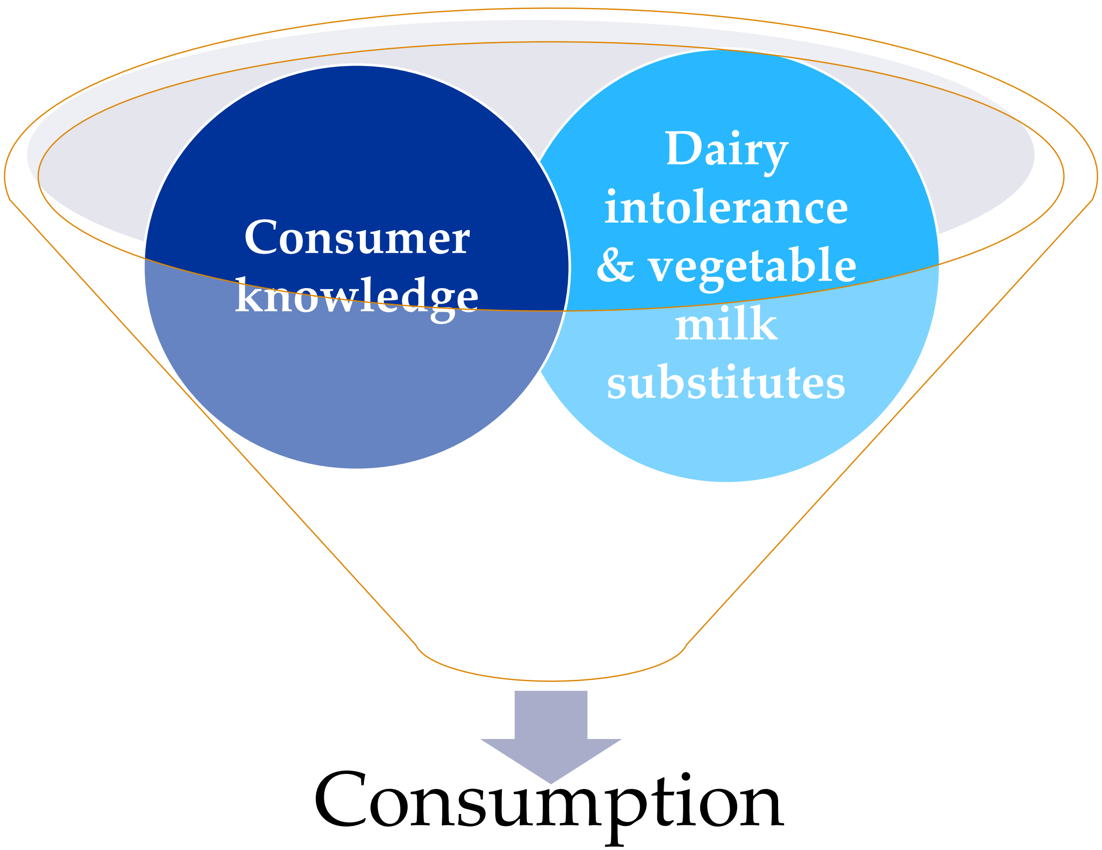
Retailers views: barriers to market development sheep & goat dairy products



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iSAGE Consumer research

Results

Qualitative research

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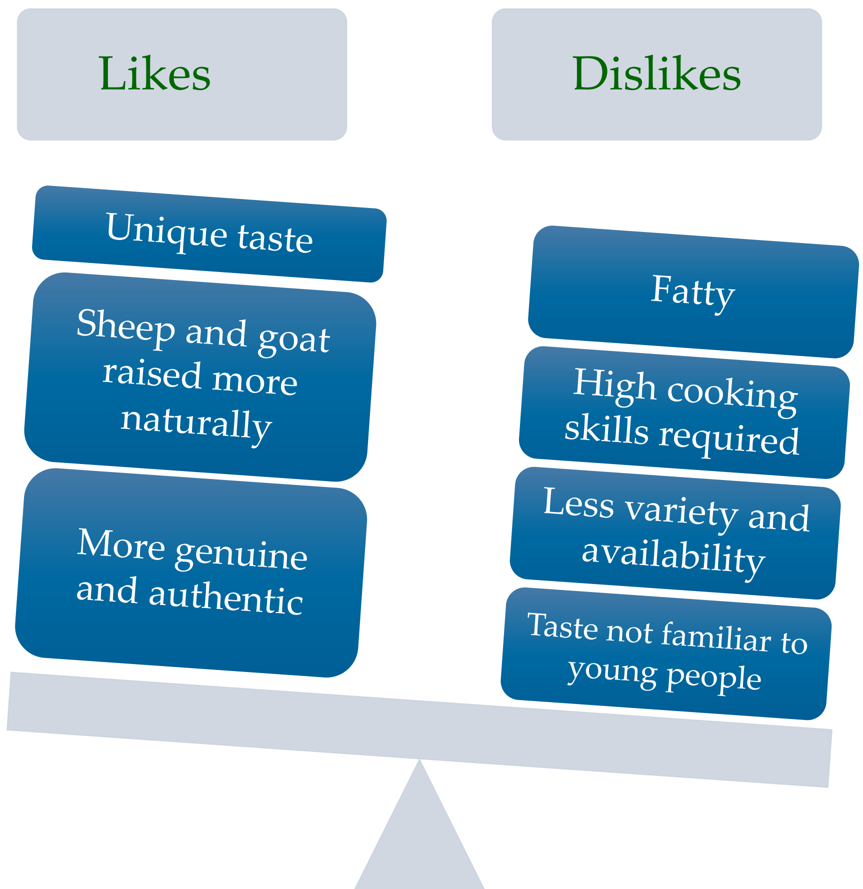
Focus Group overall results: meat



Focus groups results for meat

"Chicken meat smells badly because of how they are raised and fed in closed cages where hens are not healthy"(F, Reg., TR)

Free Range perception

"Meat […] is purer and has less hormones, so I trust to consume more of it" (F, Occ., GR)

Unique taste

"My children eat lamb with difficulty because of its smell" (F, Reg., TR).

"I would never consider buying sheep/goat meat from a supermarket or from a butcher whom I don't know personally "(F, Occ., GR)

Shopping Habits

"I buy from a farm that I know. I don't trust the big supermarkets. I'm not also sure if Islamic rules are applied" (F. Reg., TR)

"We eat lamb regularly at home because we all love it"(F, Reg., GR)

"Sheep and goat meat is not for everyday"(F, Occ., GR)

"Lamb chops are very tasty when prepared in traditional barbecues. When I go out to taverns I order lamb chops"(M, Occ., GR)

Situation

Cuts/portion size

"I would buy sheep and goat meat if it was available in small portions quantities. I live alone and I cannot consume much" (F, Occ., GR).

"I know that I will pay more for quality meat (M, Reg., GR)

Quality/Price

"We consume sheep meat once in a week. Consuming every day is not possible for us because of economic conditions(M, Reg., TR)

Results summary - Dairy

Likes	Dislikes
Unique Taste	Poor information on product labels
Versatility	High price and small variety
Sheep and goat freely graze	Taste/Smell
Healthier compared to other dairy products (cow milk)	Fatty not for daily consumption

Focus groups results for cheese

Taste

"Sheep dairy products have a richer taste if compared to cow products" (F, Reg. GR)

" My daughter does not like goat products because of their heavy smell "(M, Reg.TR)

"For me, elements giving specific taste to cheese and yogurt can come only from ewe and goat milk" (F, Reg., TR).

Availability

"Ewe-milk yoghurt is a traditional product, but I stopped consuming it the last few years because it is not very common in supermarkets " (F, Occ., GR).

Shopping habits

"I buy my cheese from the producer that I know"(M, Occ., TR)

"I basically buy a specific local brand of feta since a long time. I like it, I trust it and I don't want to buy another one" (M, Occ., GR).

Knowledge

"I was not aware of it [feta cheese] before I went on holidays to Greece, and when I came back I wanted to prepare my own Greek salad" (F, Occ., UK).

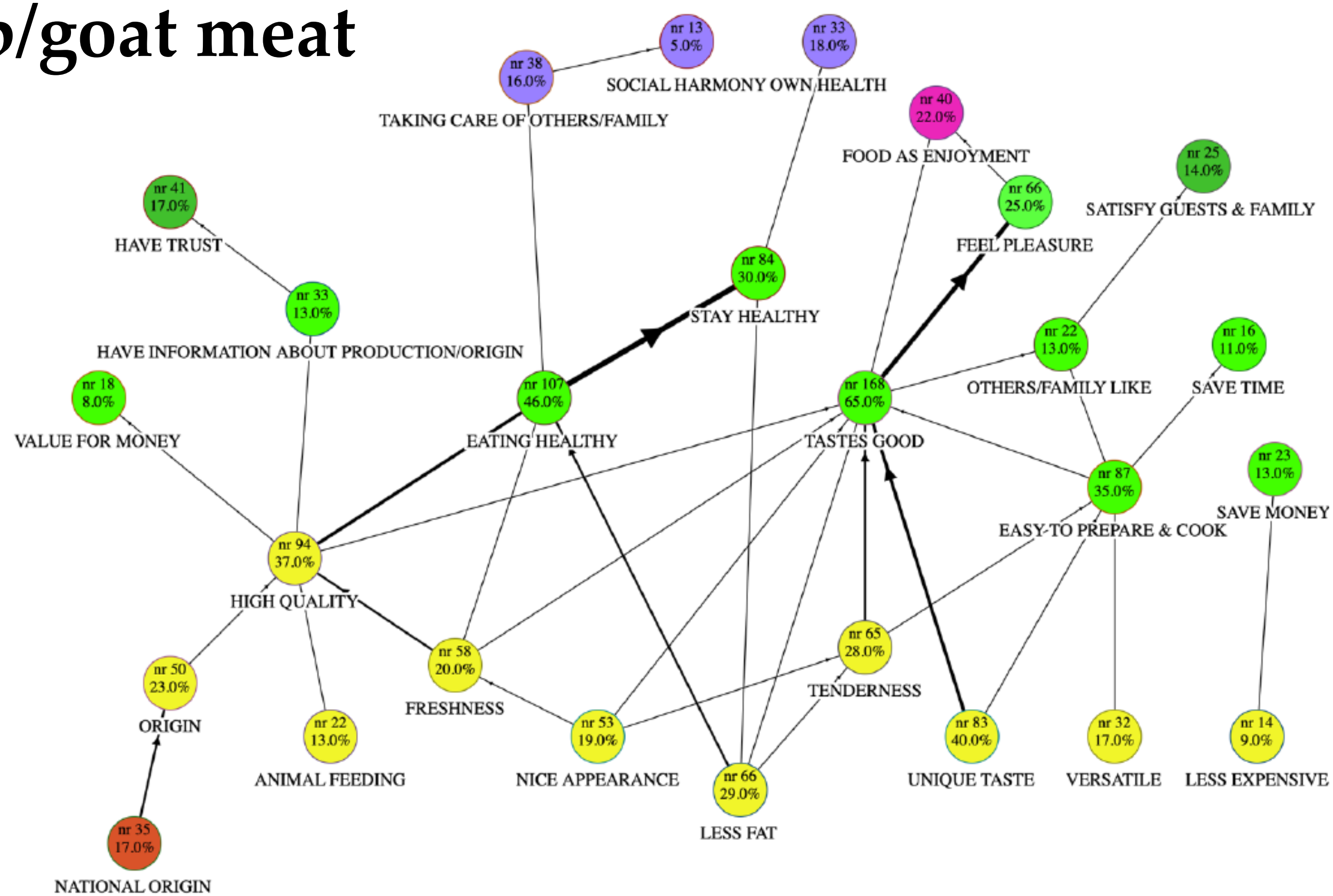
Quality & Price

"Many products are of very high quality, and even healthier than organic, without any type of certification" (M, Reg., GR)

"I buy cheese from a small dairy and this cheese is considerably more expensive but it is exactly as I want it" (F, Reg. GR)

Qualitative results for meat

Cognitive structure of motivations to purchase sheep/goat meat



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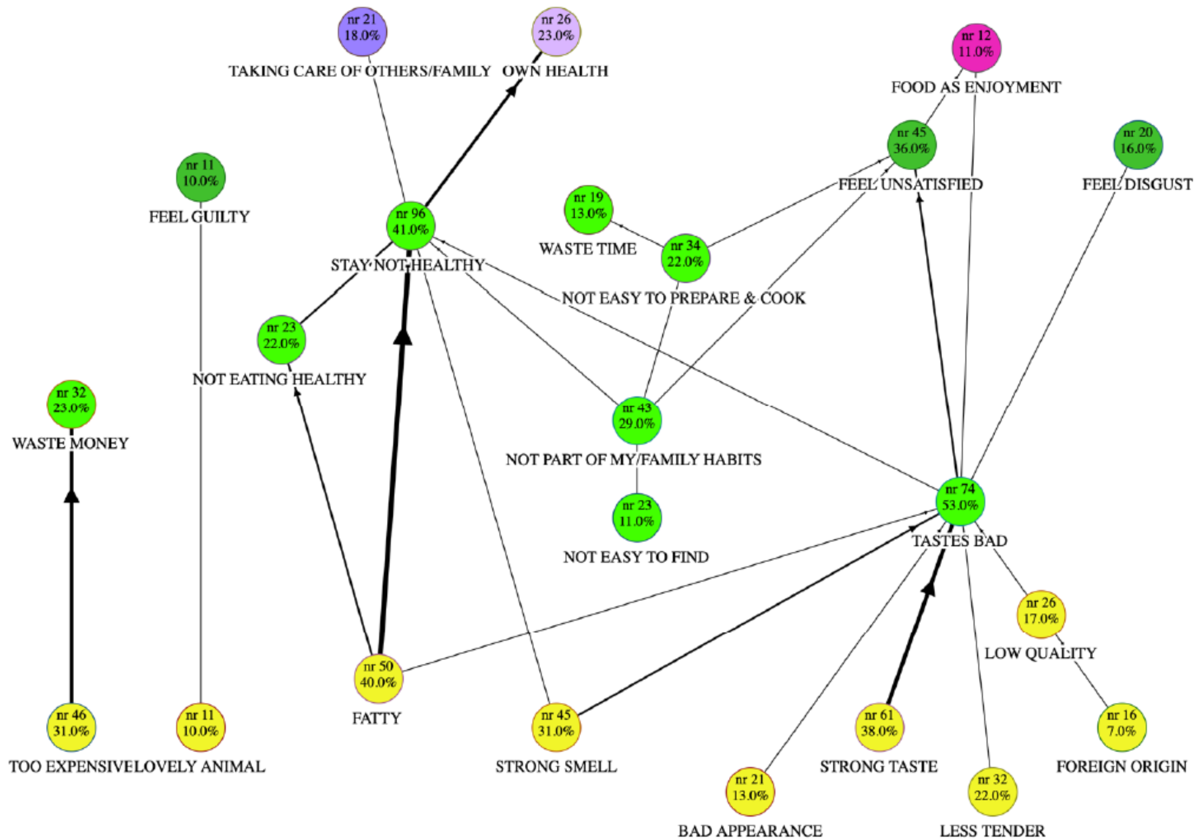
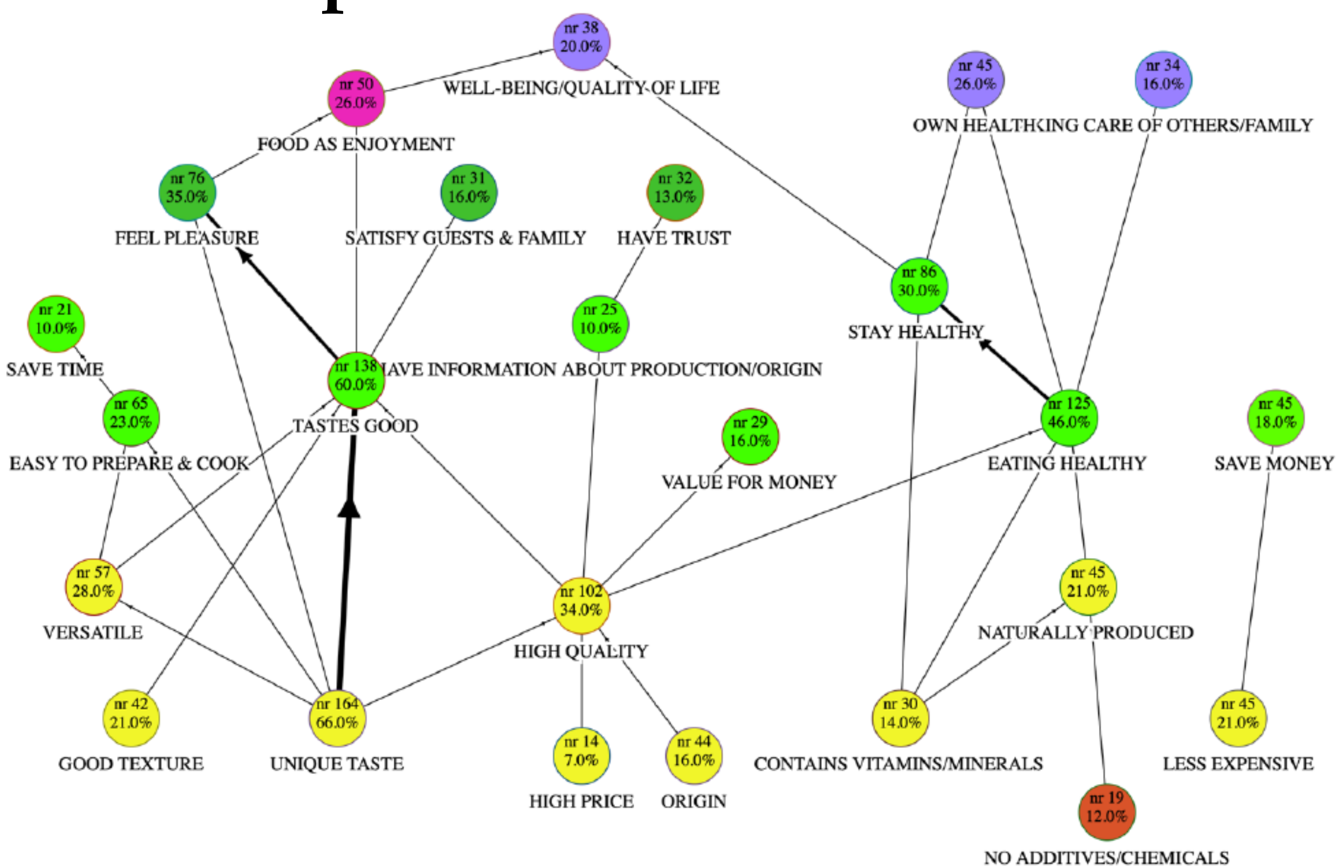
Qualitative results for meat

Cognitive structure of barriers linked to the consumption of ewe/goat meat



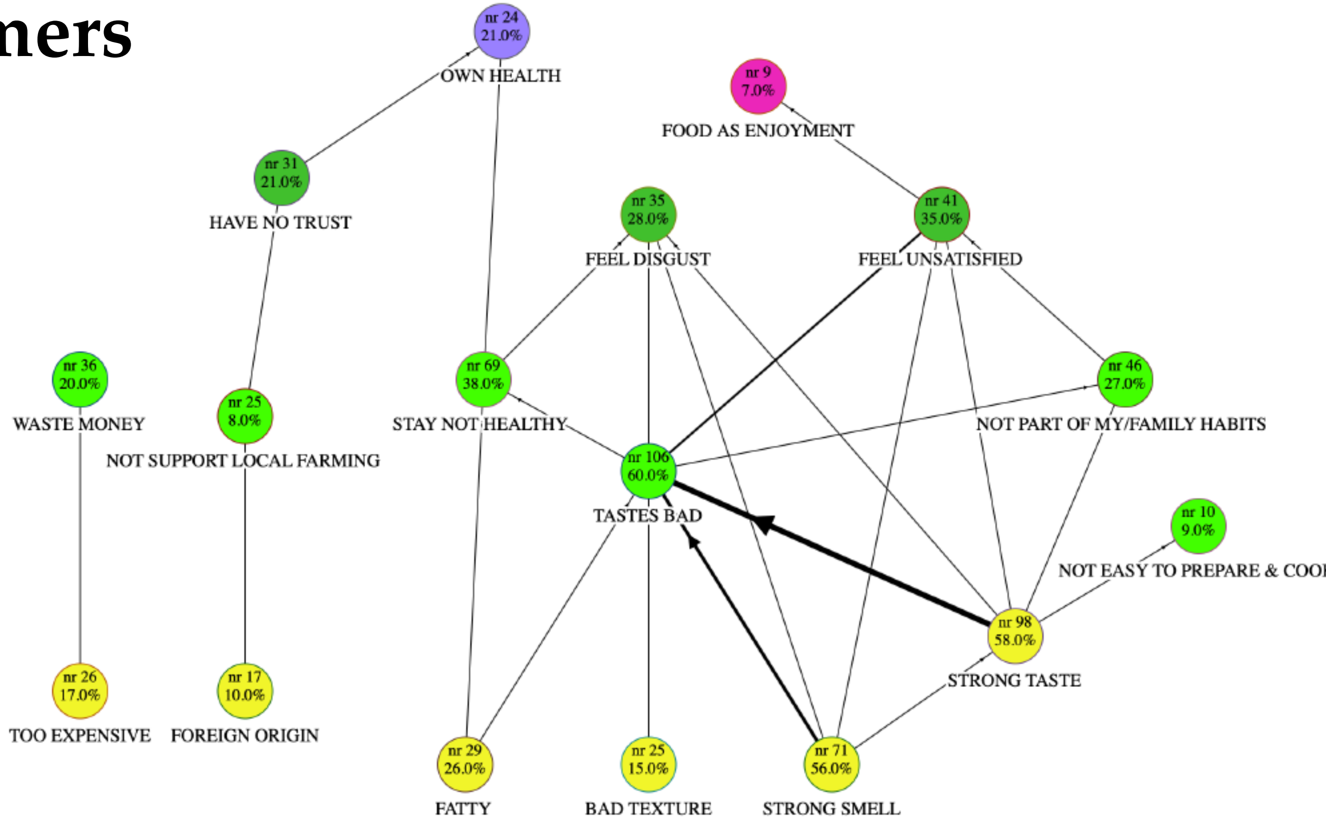
Qualitative results for cheese

Sheep/goat dairy products – cognitive structure of motivations to purchase



Qualitative results for cheese

Cognitive structure of barriers linked to the consumption of sheep/goat dairy products for non-consumers

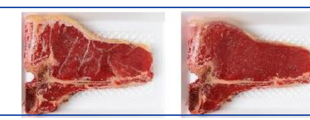
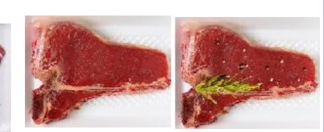


Quantitative research

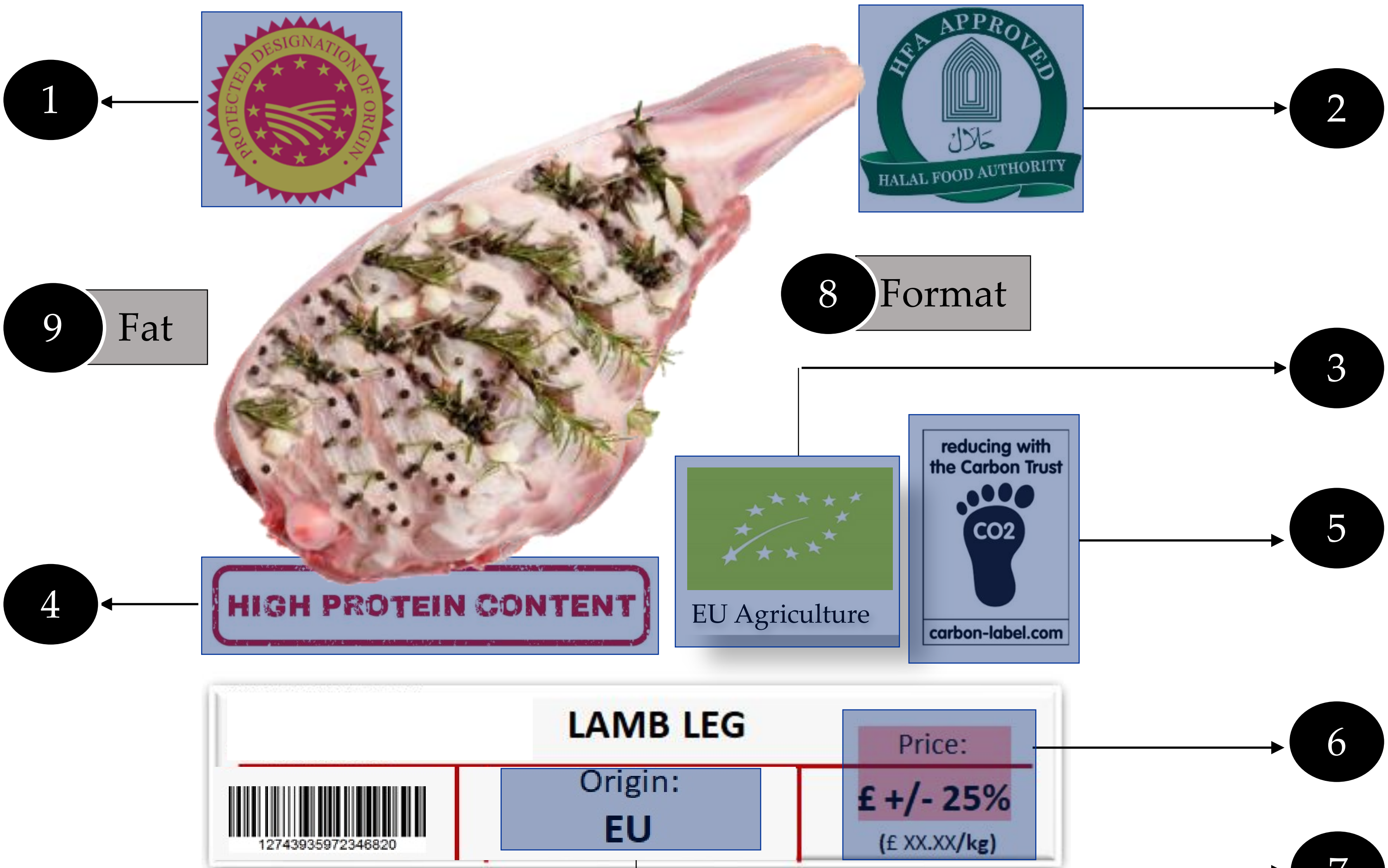
Methods: choice experiment structure - MEAT

- Introductory talk included
- 4 types of labels tested
  - Halal, Organic, Carbon footprint, PGI/PDO
- Choice experiment
  - 12 choice sets, 9 attributes
  - Labeled: 4 alternatives
    - Lamb leg, lamb chops, goat chops, Beef T-bone
  - A no-choice alternative

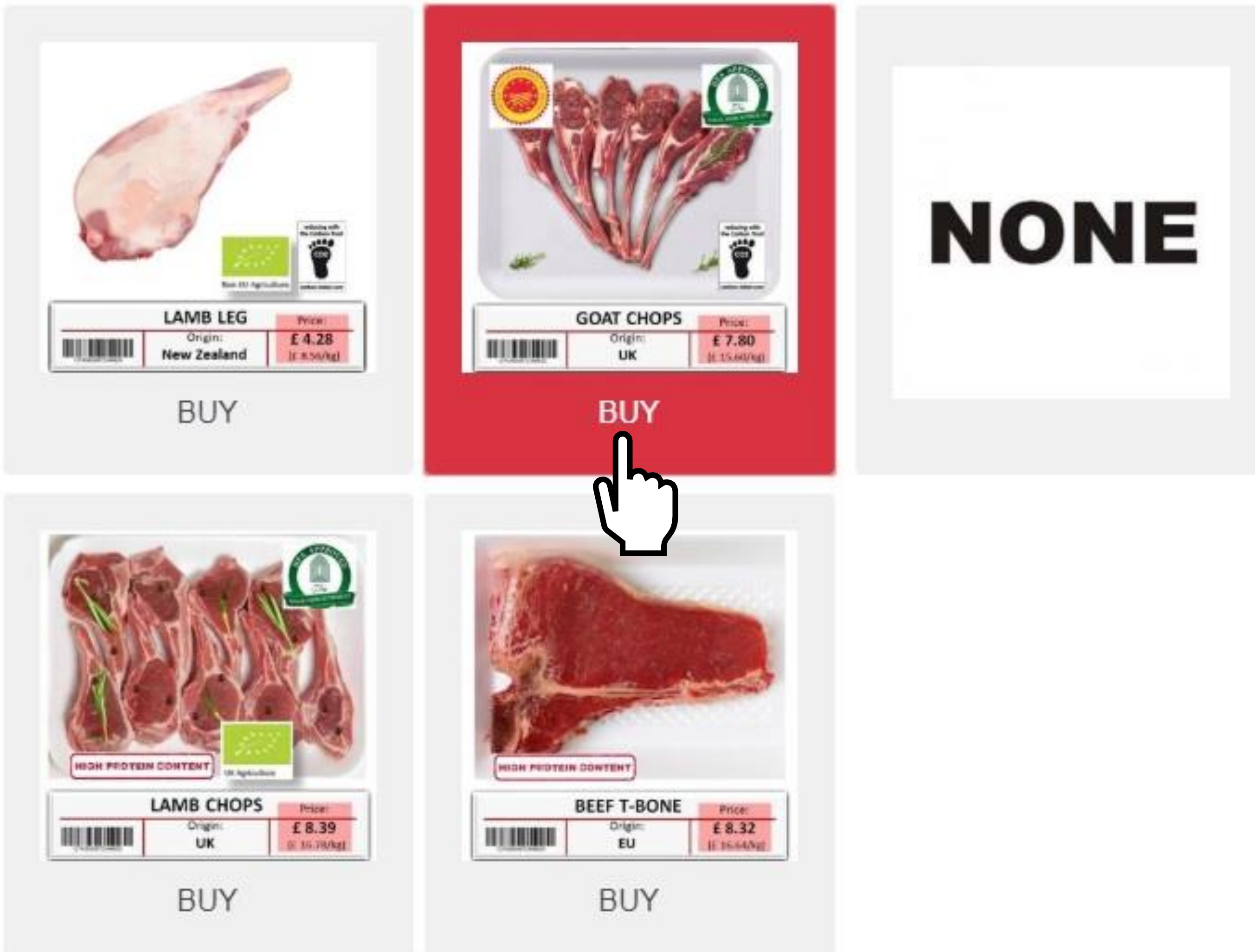
Choice experiment design for meat

Attributes	Lamb leg	Lamb chops	Goat chops	Beef T-bone
Price	•Average price •-30% •+30%	•Average price •-30% •+30%	•Average price •-30% •+30%	•Average price •-30% •+30%
Origin	•National •EU •Out of EU	•National •EU •Out of EU	•National •EU •Out of EU	•National •EU •Out of EU
PGI/PDO				
Low carbon footprint	reducing with the Carbon Trust CO_2 carbon-label.com	reducing with the Carbon Trust CO_2 carbon-label.com	reducing with the Carbon Trust CO_2 carbon-label.com	reducing with the Carbon Trust CO_2 carbon-label.com
Organic				
Fat content			-	
Protein content	HIGH PROTEIN CONTENT	HIGH PROTEIN CONTENT	HIGH PROTEIN CONTENT	HIGH PROTEIN CONTENT
Halal	HFA APPROVED HALAL FOOD AUTHORITY	HFA APPROVED HALAL FOOD AUTHORITY	HFA APPROVED HALAL FOOD AUTHORITY	HFA APPROVED HALAL FOOD AUTHORITY
Format				

Choice experiment attributes



Choice experiment for meat



Choice set

Choice experiment for meat

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Results: meat cuts and type

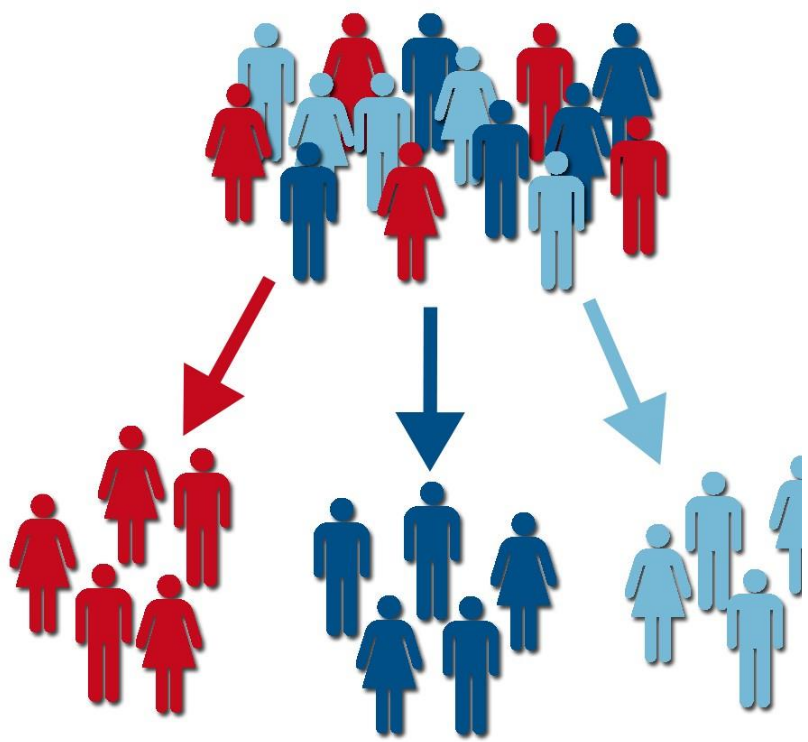
*Beef is the reference category

Meat	Finland	France	Greece	Italy	Spain	Turkey	UK
 Beef T-bone	–	–	–	–	–	–	–
 Lamb leg	↓	↑↑	↓	↓	↓	↓	↑↑
 Lamb chops	↓	↑	↓	↑	↑	↑	↑↑
 Goat chops	↓↓	↓↓	↓	↓↓	↓↓	↓	↓
None	↓	↑	↓	↓↓	↓↓	↓↓	↑

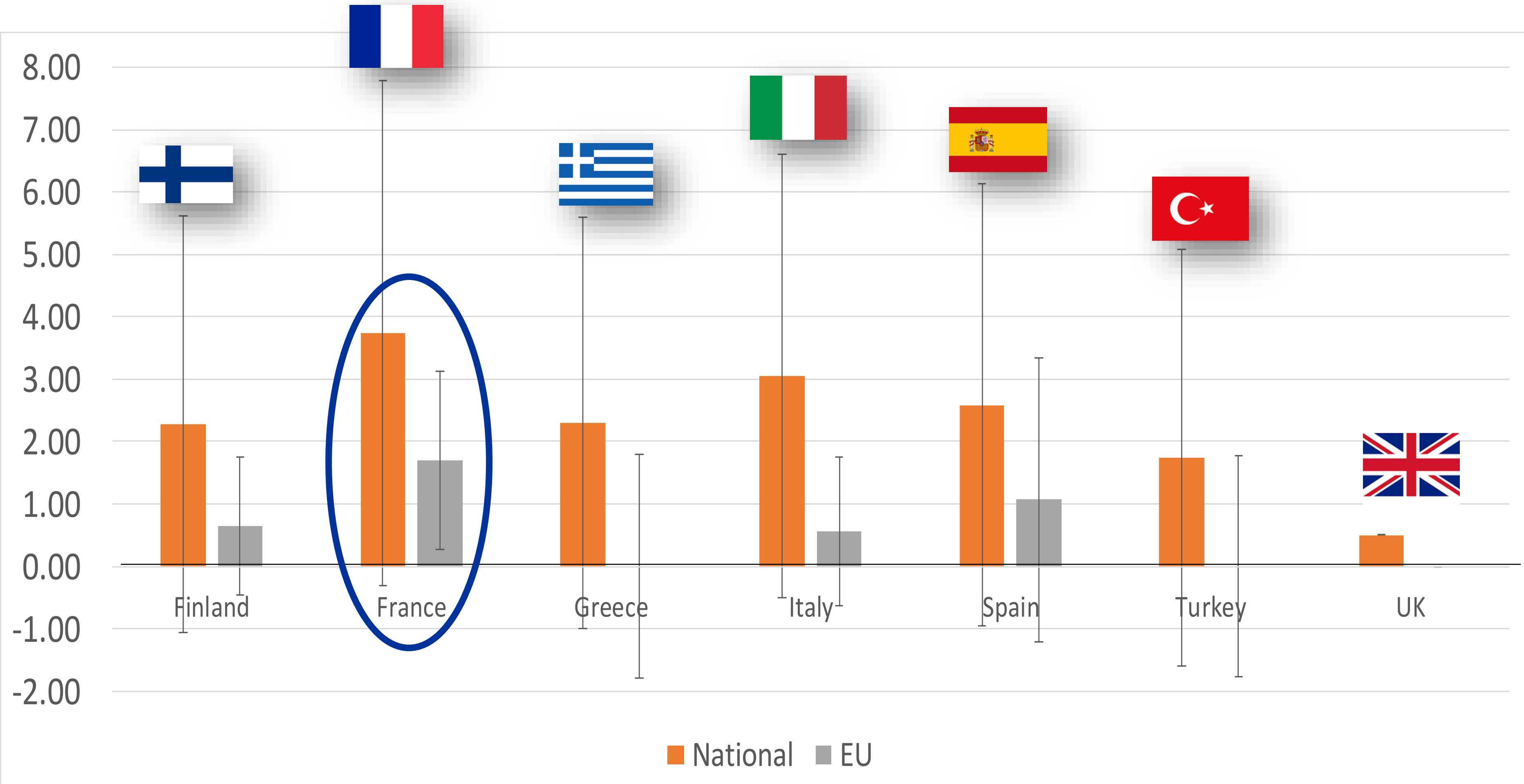
5% significance level

Consumers are not all alike

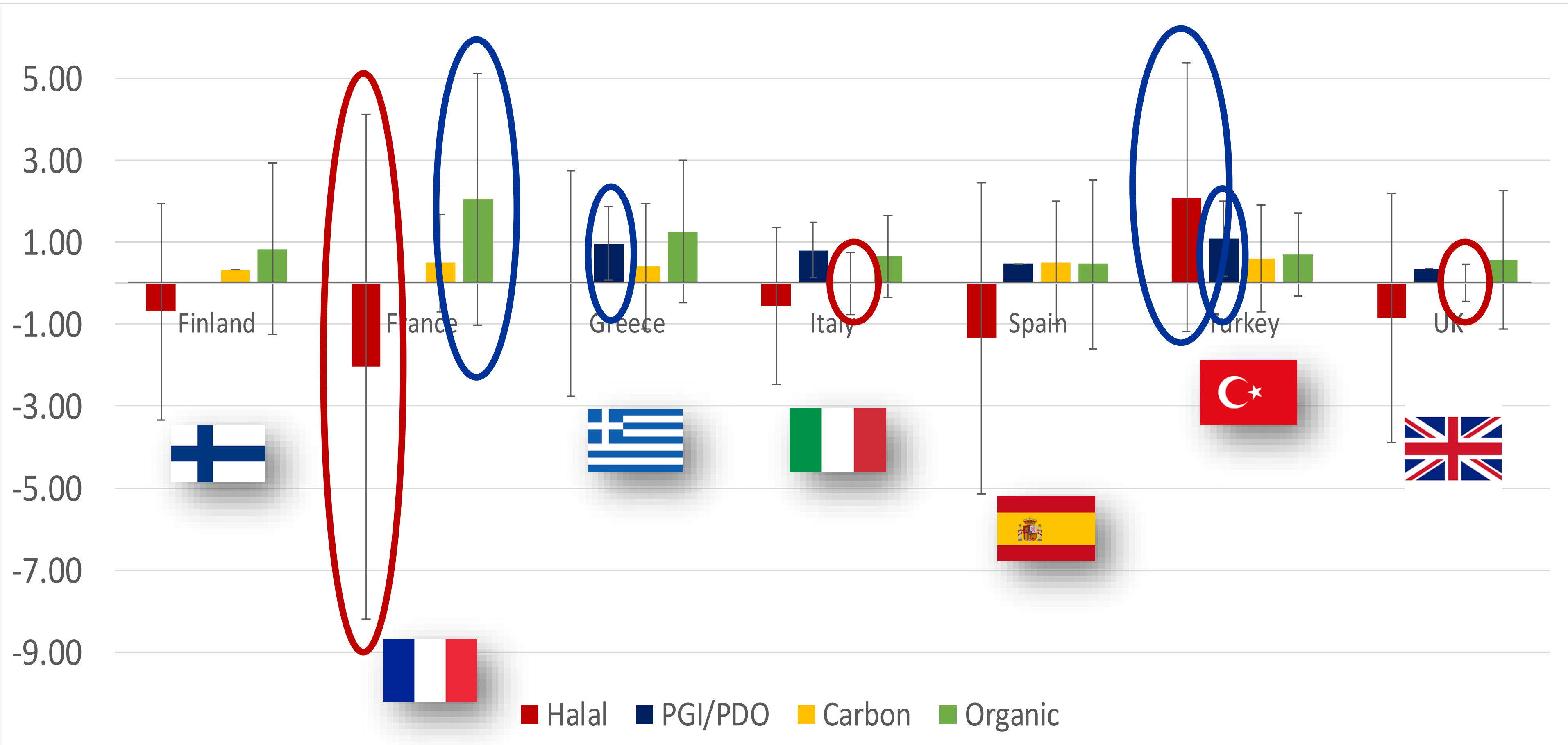
- Consumer have heterogenous preferences depending from status, culture, income, education, family & household characteristics, past experience, etc.
- They search for different **benefits**, and have different views of risks
- Market segmentation is necessary



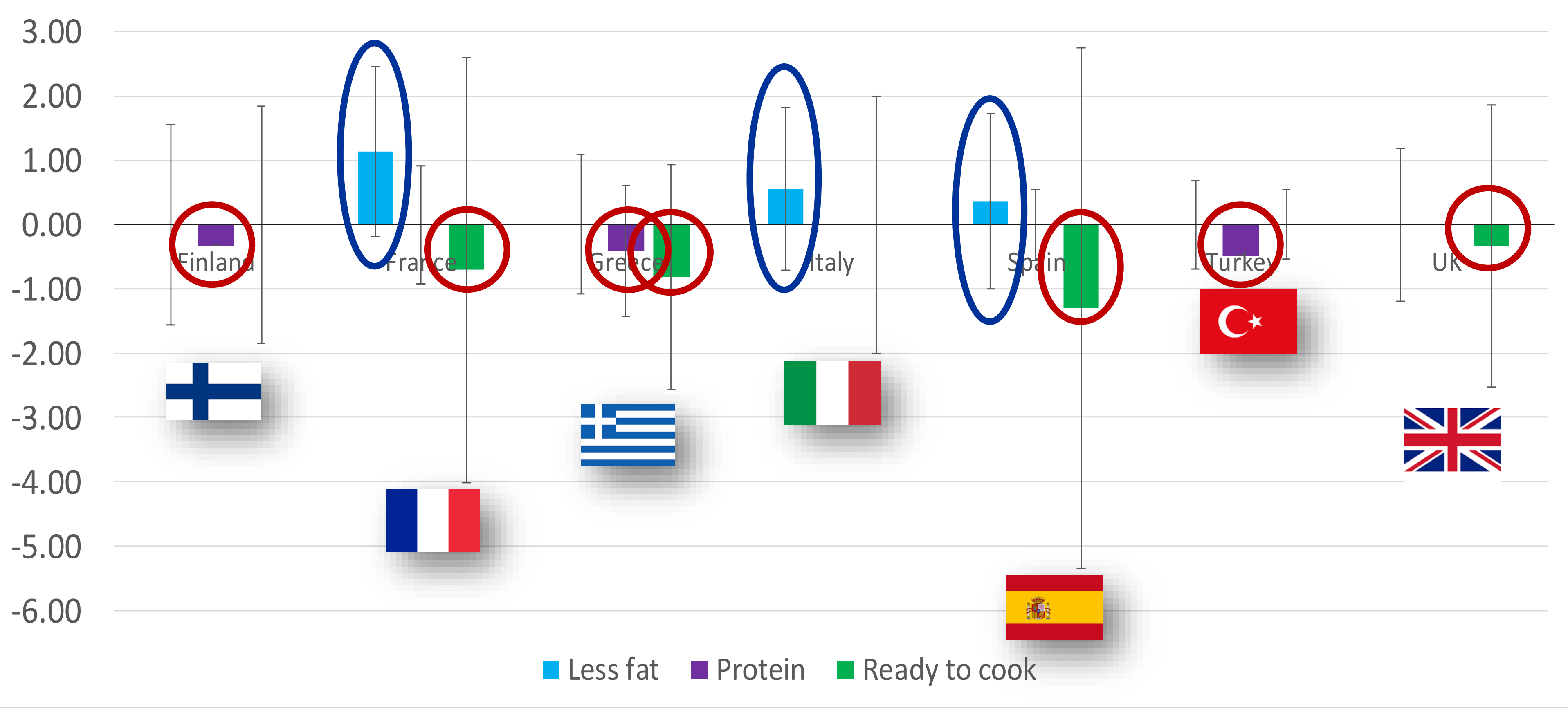
WTP for Origin (€)



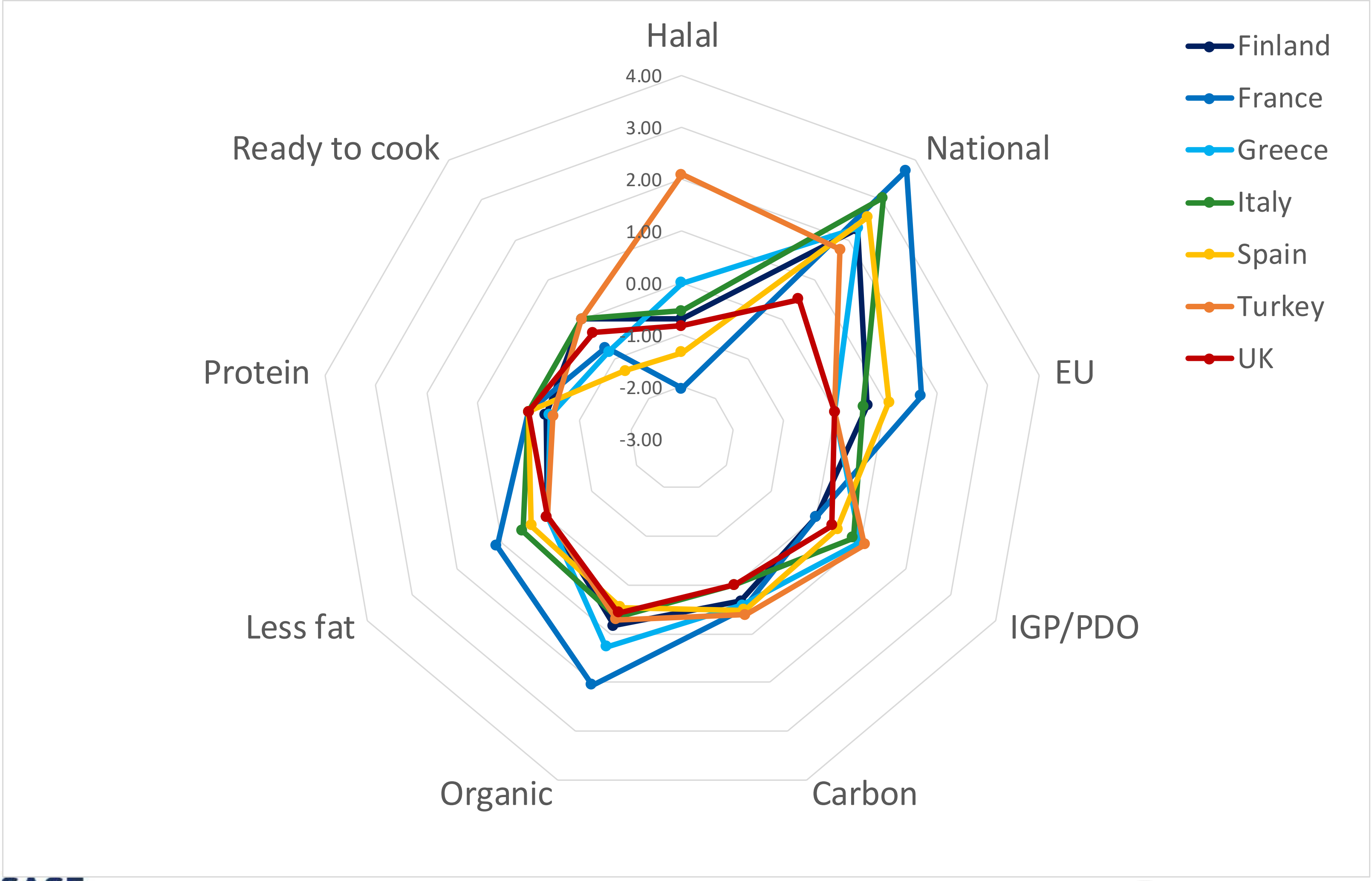
WTP for Halal, PGI/PDO, Carbon footprint and Organic label (€)



WTP for health related labels (€)



Average Willingness-to-Pay (€) Comparison with other countries



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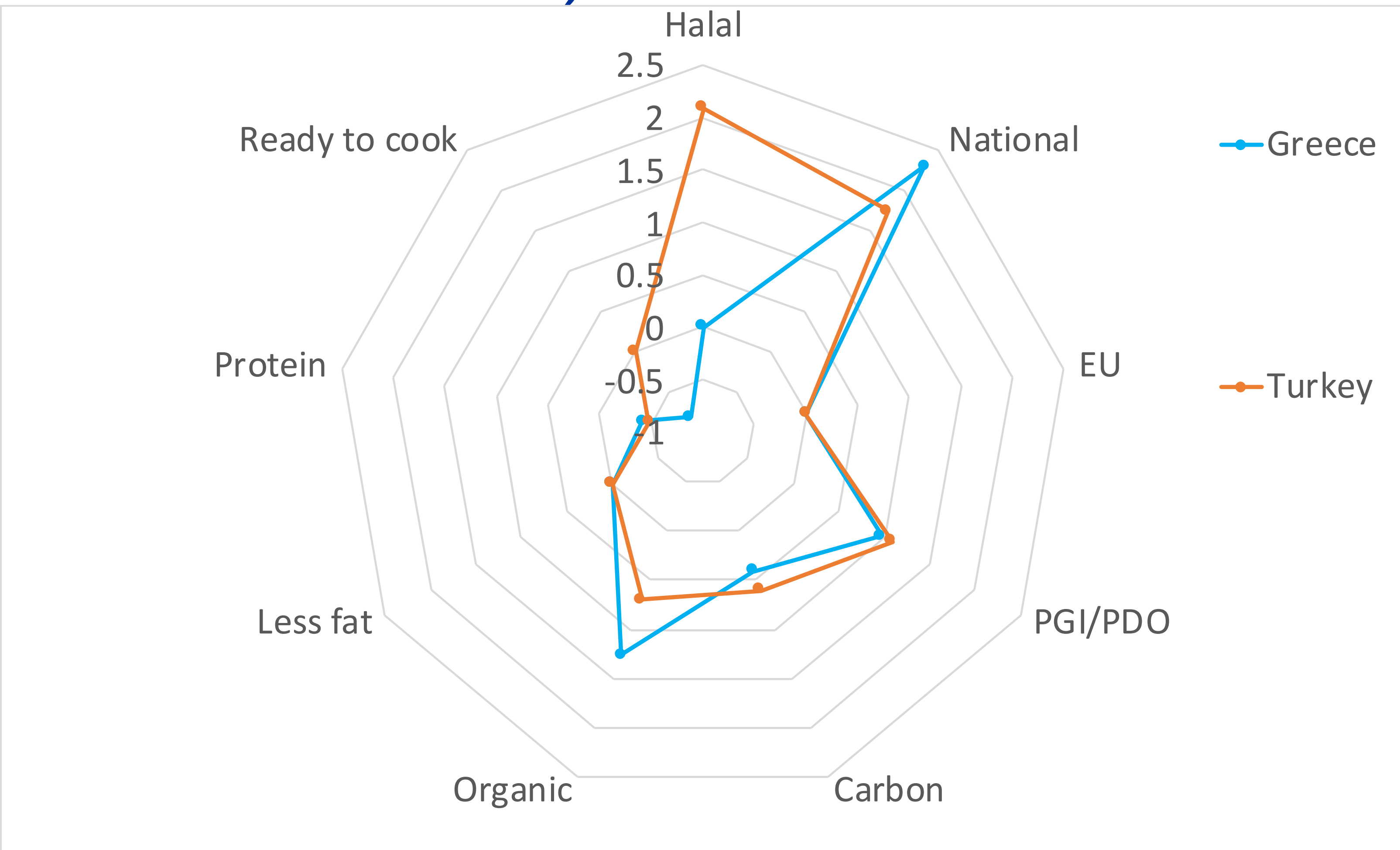
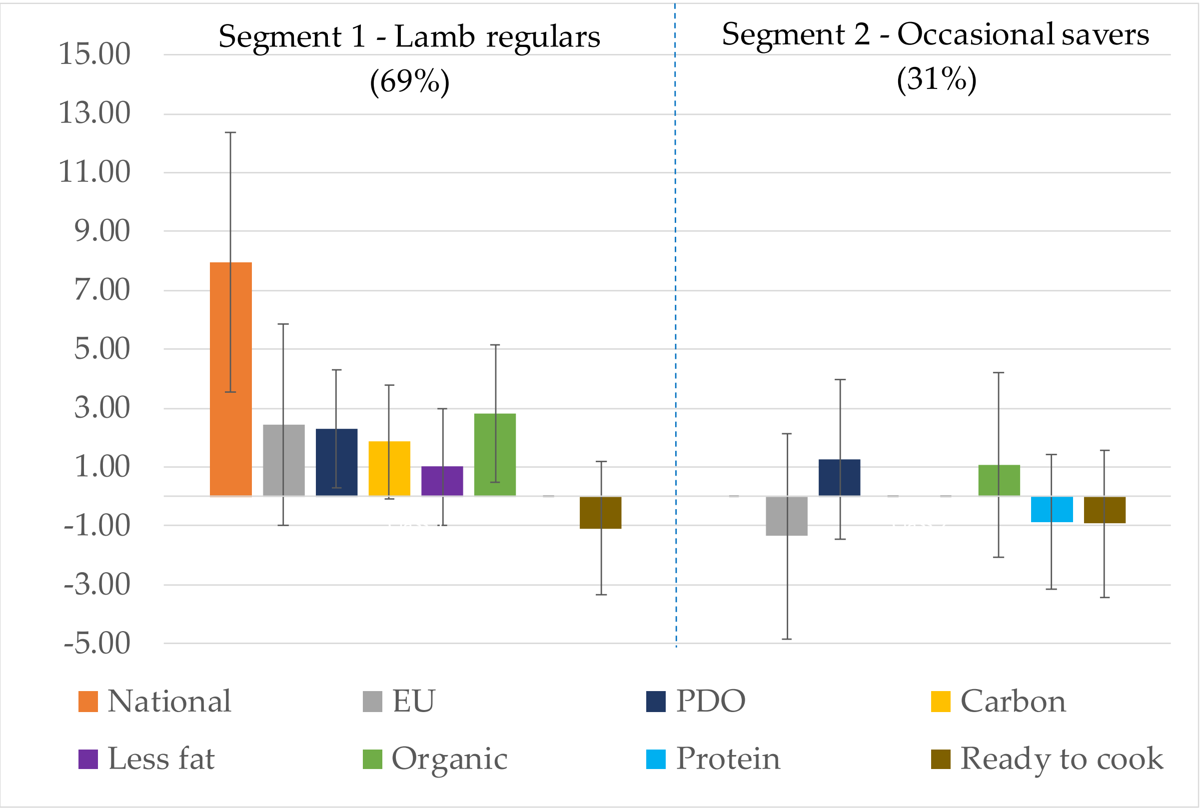
Average WTP for meat – GR & TR (€)



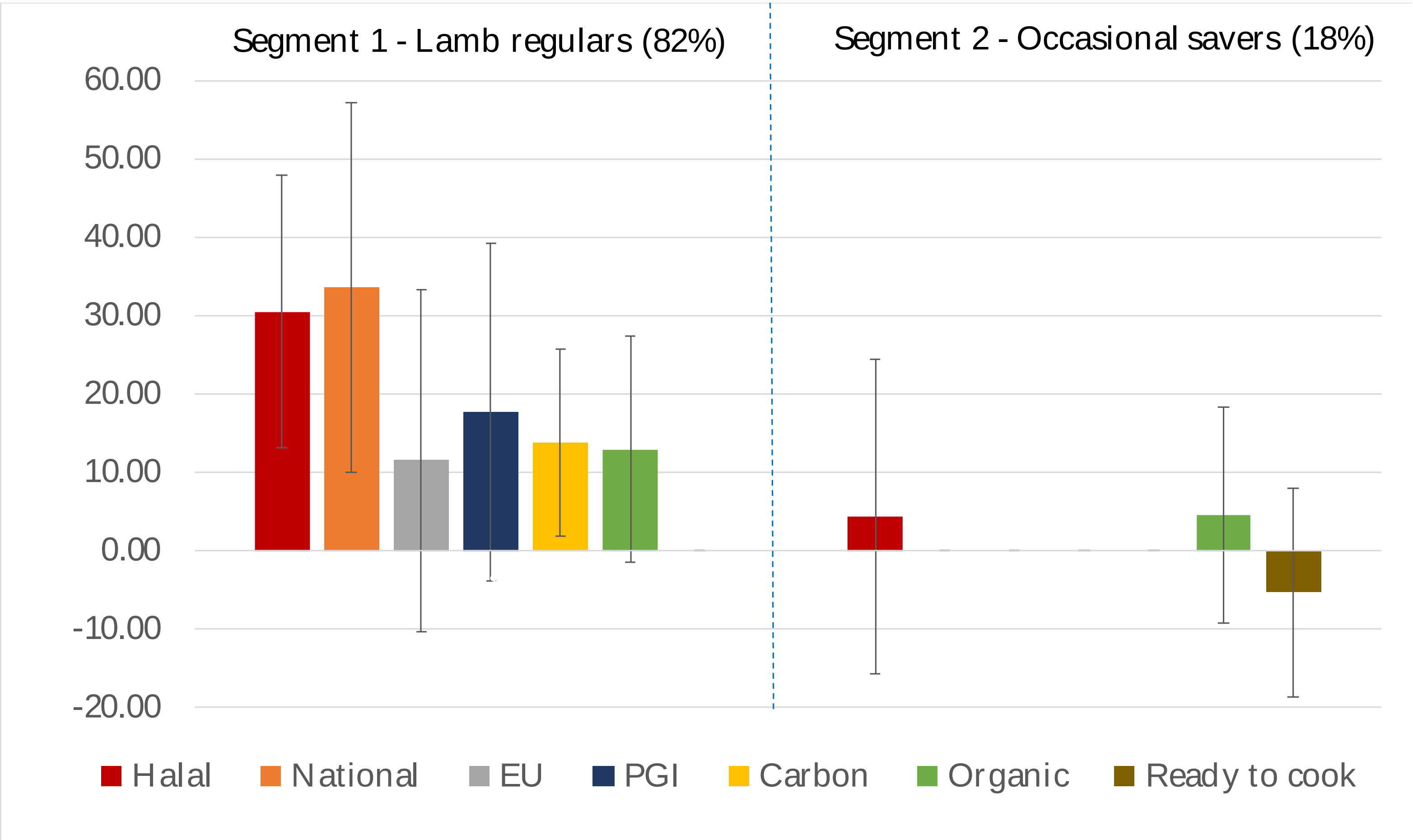
GR Meat segments (WTP €)



GR Meat segments

	Sociodemographic	Behavior	Knowledge	Psychographics	Main attributes
Segment 1 - Lamb regulars (69%)	Male, 35-44 years old, employed, higher education and larger households	Regular lamb consumers, especially on weekends. Stable consumption in the last 3 years.	High knowledge about lamb meat.	Likes novelty, follows an unhealthy lifestyle and has no interest in convenience	National or EU origin, organic, PDO, Carbon footprint, less fatty
Segment 2 - Occasional savers (31%)	Female, 55-64 years old, unemployed or retired, no kids, smaller households.	Stable/decreasing consumptions of lamb in the last 3 years. Mainly eaten in religious holidays	Low knowledge about lamb meat.	Do not like novelty, prefers convenience and has a healthy lifestyle.	Price sensitive, PDO, Organic, non-EU origin and no high protein content

TR Meat segments (WTP ₺)



TR Meat segments

	Sociodemographic	Behavior	Knowledge	Psychographics	Main attributes
Segment 1 - Regular consumers (82%)	25-44, 55-64 years old, higher income, smaller households	More frequent beef and lamb consumer. Buys lamb chops at the butcher.	Relies on the advice from friends, family and the butcher. High knowledge on lamb meat	Novelty driven, (price/quality concerns)	National, Halal, PGI, Carbon footprint, Organic
Segment 2 - Occasional savers (18%)	18-24, 45-54 years old, lower income, bigger households	Less frequent beef and lamb consumer. Buys minced and diced lamb. Shares the responsibility of buying groceries.	Relies on butcher advise when selecting lamb. Low knowledge about lamb.	No novelty driven, (no price/quality concerns)	Halal, Organic, price sensitive. No “ready to cook” format.

Let's continue with ewe and goat cheese!

Methods: choice experiment structure –CHEESE

- Introduction
  - Important to avoid hypothetical bias
- Labels and key concepts definitions
  - Pasteurisation, Rennet, Organic, PDO
- Choice experiment
  - Regular day consumption
  - 18 choice sets, 2 blocks, 8 attributes
  - 2 Labels, 4 alternatives
    - Aged cheese A, Aged cheese B, Fresh cheese A, Fresh cheese B
  - A no-choice alternative

Choice experiment design for cheese

Attributes	Aged cheese A	Aged cheese B	Fresh cheese A	Fresh cheese B
Milk source	•Ewe •Goat •Cow •Mixed	•Ewe •Goat •Cow •Mixed	•Ewe •Goat •Cow •Mixed	•Ewe •Goat •Cow •Mixed
Pasteurised	•Pasteurised •Raw	•Pasteurised •Raw	•Pasteurised •Raw	•Pasteurised •Raw
Rennet	•Animal rennet •Non animal rennet	•Animal rennet •Non animal rennet	•Animal rennet •Non animal rennet	•Animal rennet •Non animal rennet
Salt content	•Low salt •None	•Low salt •None	•Low salt •None	•Low salt •None
Organic				
Origin	•National •EU	•National •EU	•National •EU	•National •EU
PDO/PGI				
Price	•Average price •-30% •+30%	•Average price •-30% •+30%	•Average price •-30% •+30%	•Average price •-30% •+30%

Choice experiment for cheese

Fresh cheese A	Aged cheese A	Fresh cheese B	Aged cheese B	None
Milk source: Ewe milk	Milk source: Ewe milk	Milk source: Mixed goat and cow milk	Milk source: Mixed goat and cow milk	
Raw milk	Pasteurized	Raw milk	Pasteurized	
Animal rennet	Non-animal rennet	Animal rennet	Non-animal rennet	
-	Low salt	-	Low salt	
-			-	
Origin: EU	Origin: UK	Origin: UK	Origin: UK	
	-	-		
Price: 5.57 euro	Price: 4.28 euro	Price: 3 euro	Price: 7.95 euro	

Results for cheese type

*None is the reference category

Meat	Finland	France	Greece	Italy	Spain	Turkey	UK
None	–	–	–	–	–	–	–
Aged cheese	↑	↑↑	↑	↑	↑↑	↑	↑
Fresh cheese	↑↑	↑	↑↑	↑↑	↑↑	↑↑	↑↑

5% significance level

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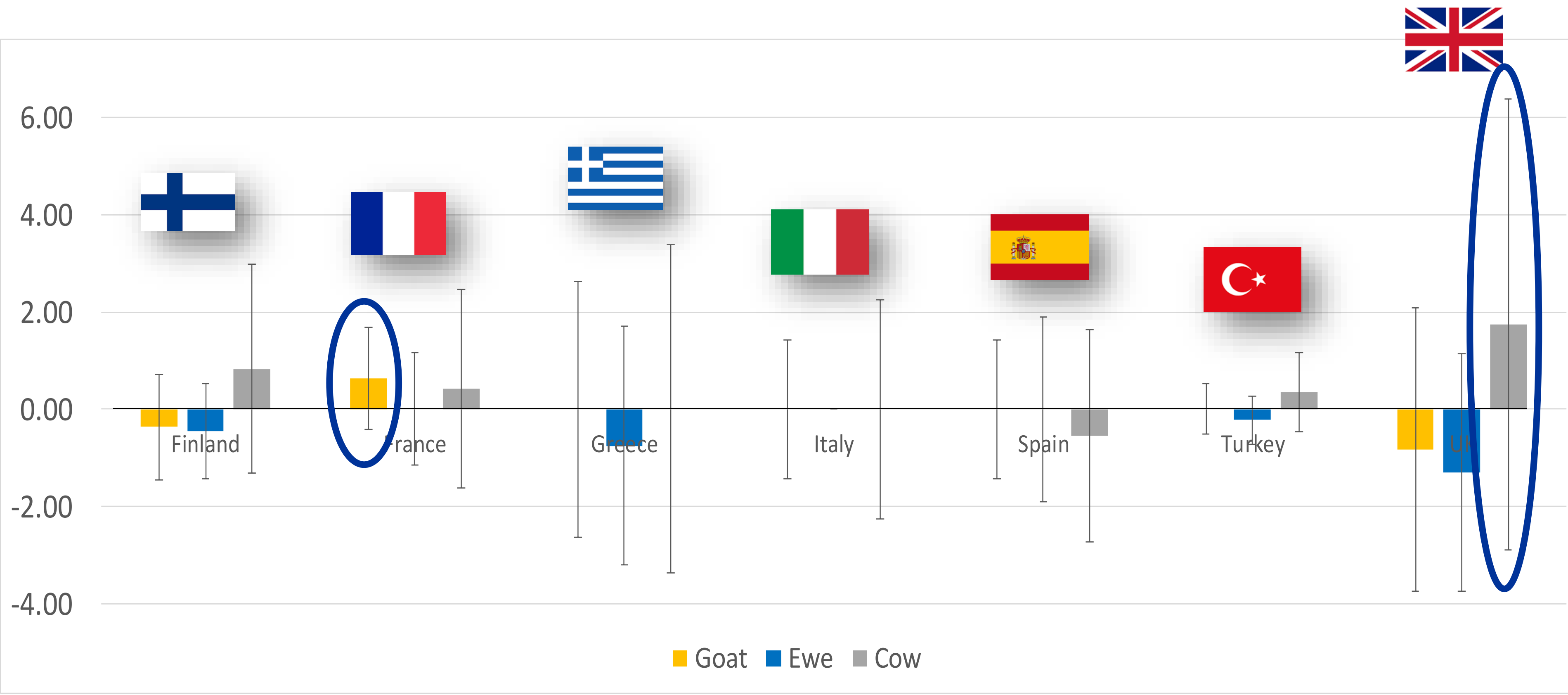
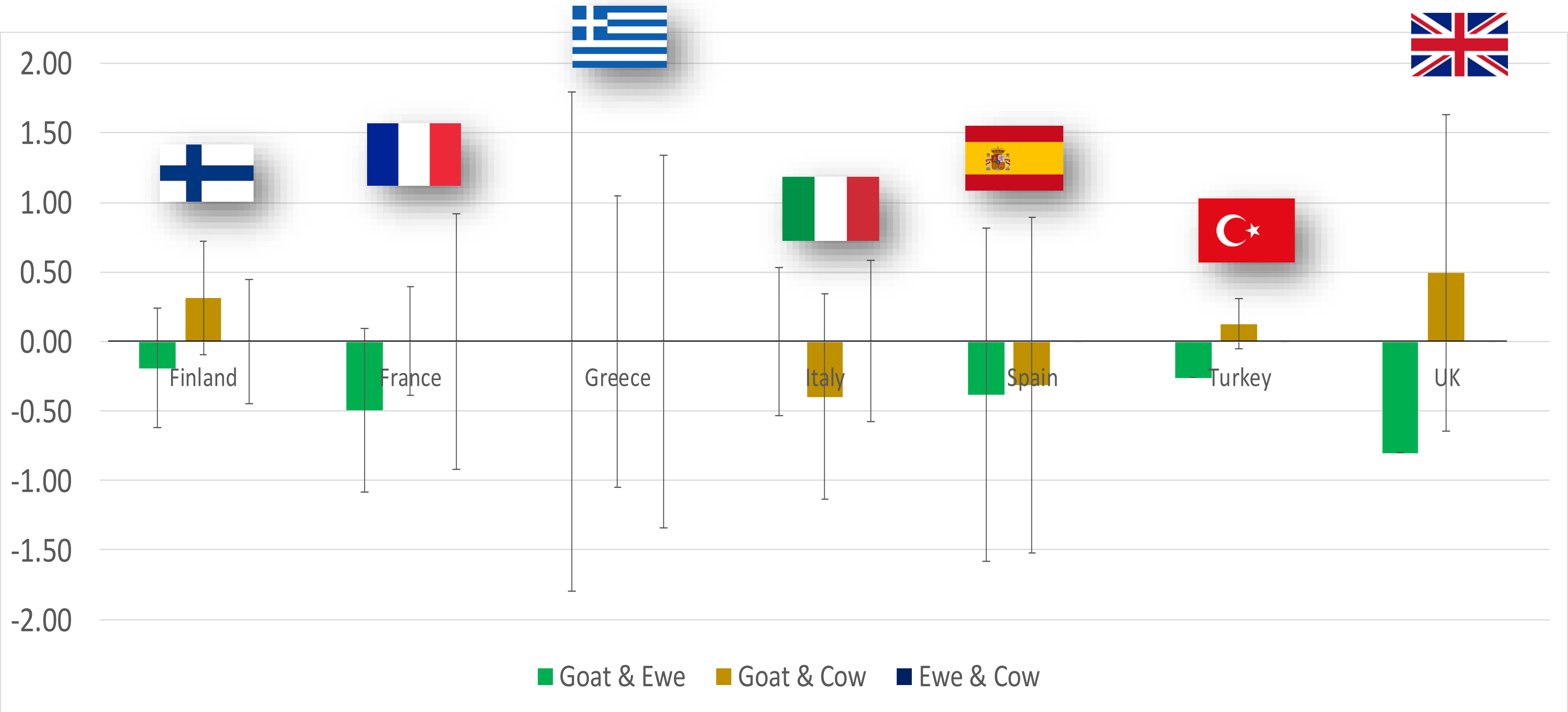
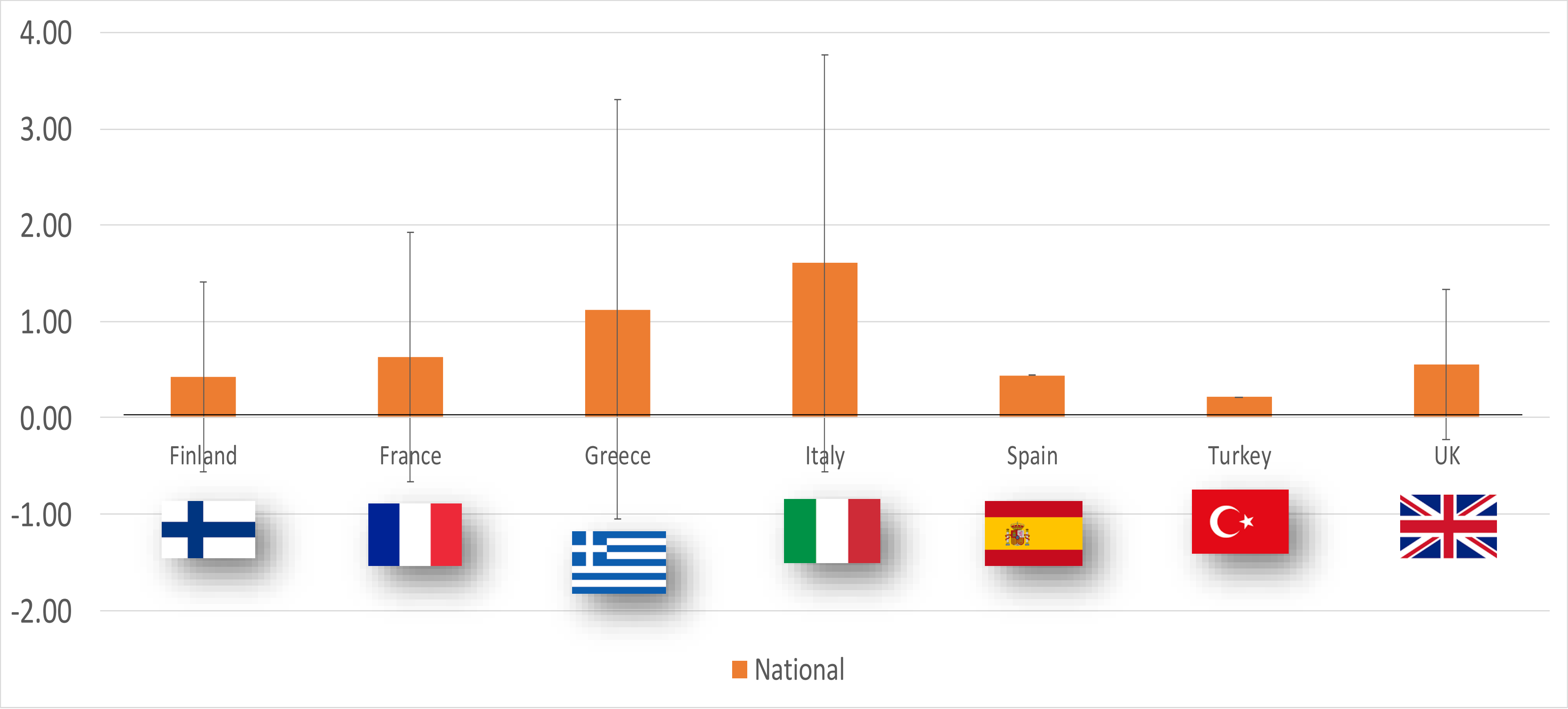
WTP for one milk type cheese (€)



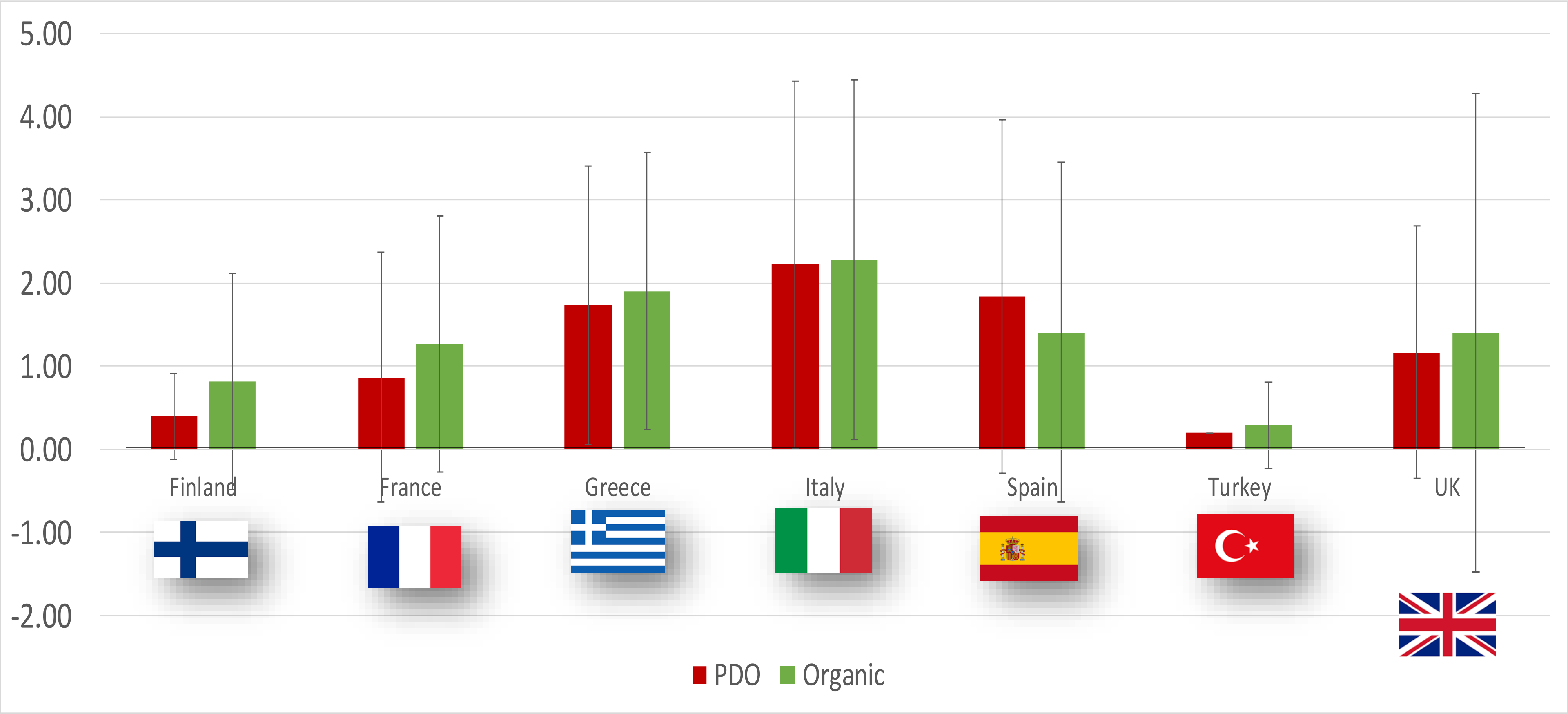
WTP for mixed cheese (€)



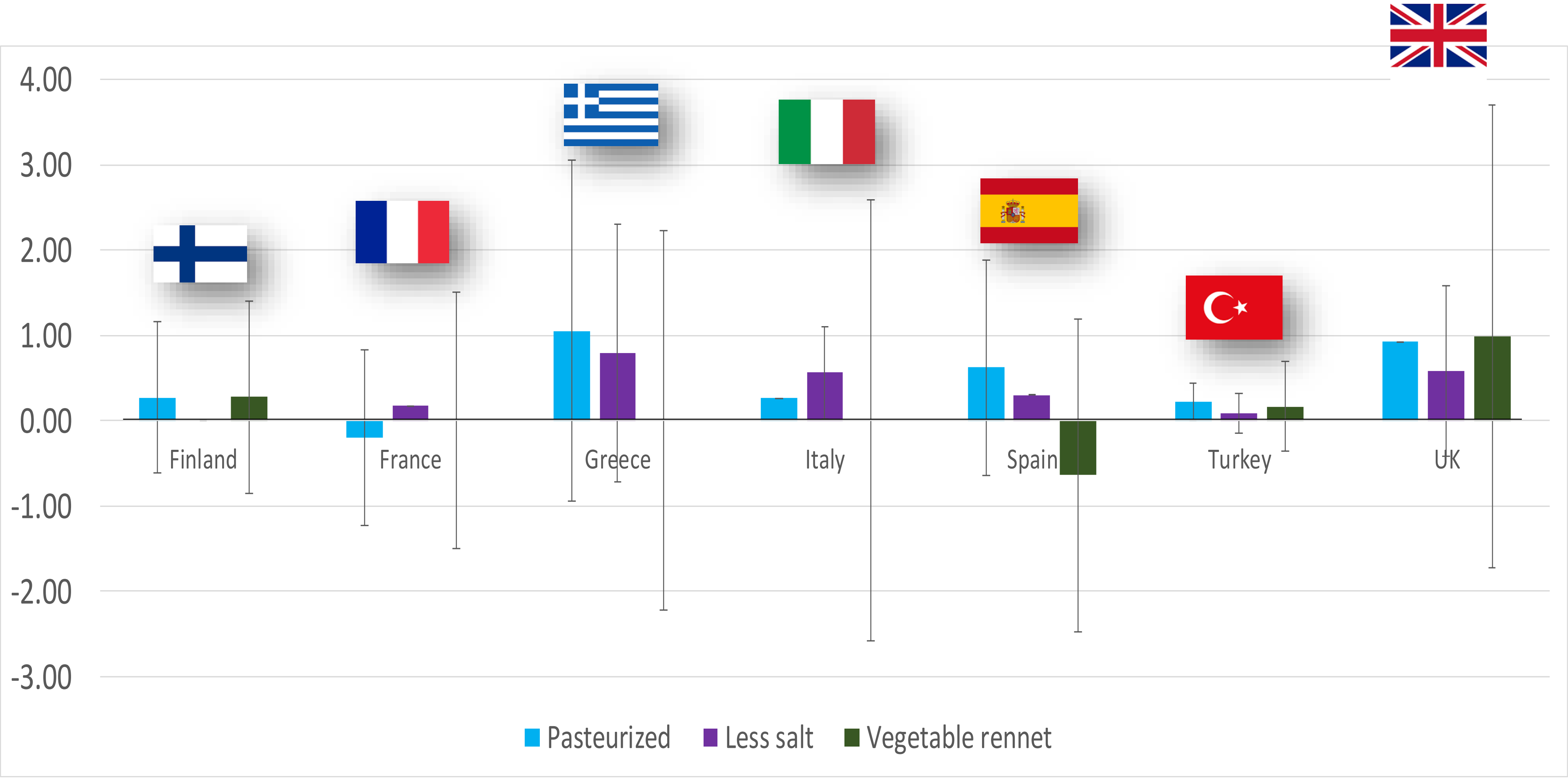
WTP for cheese national origin (€)



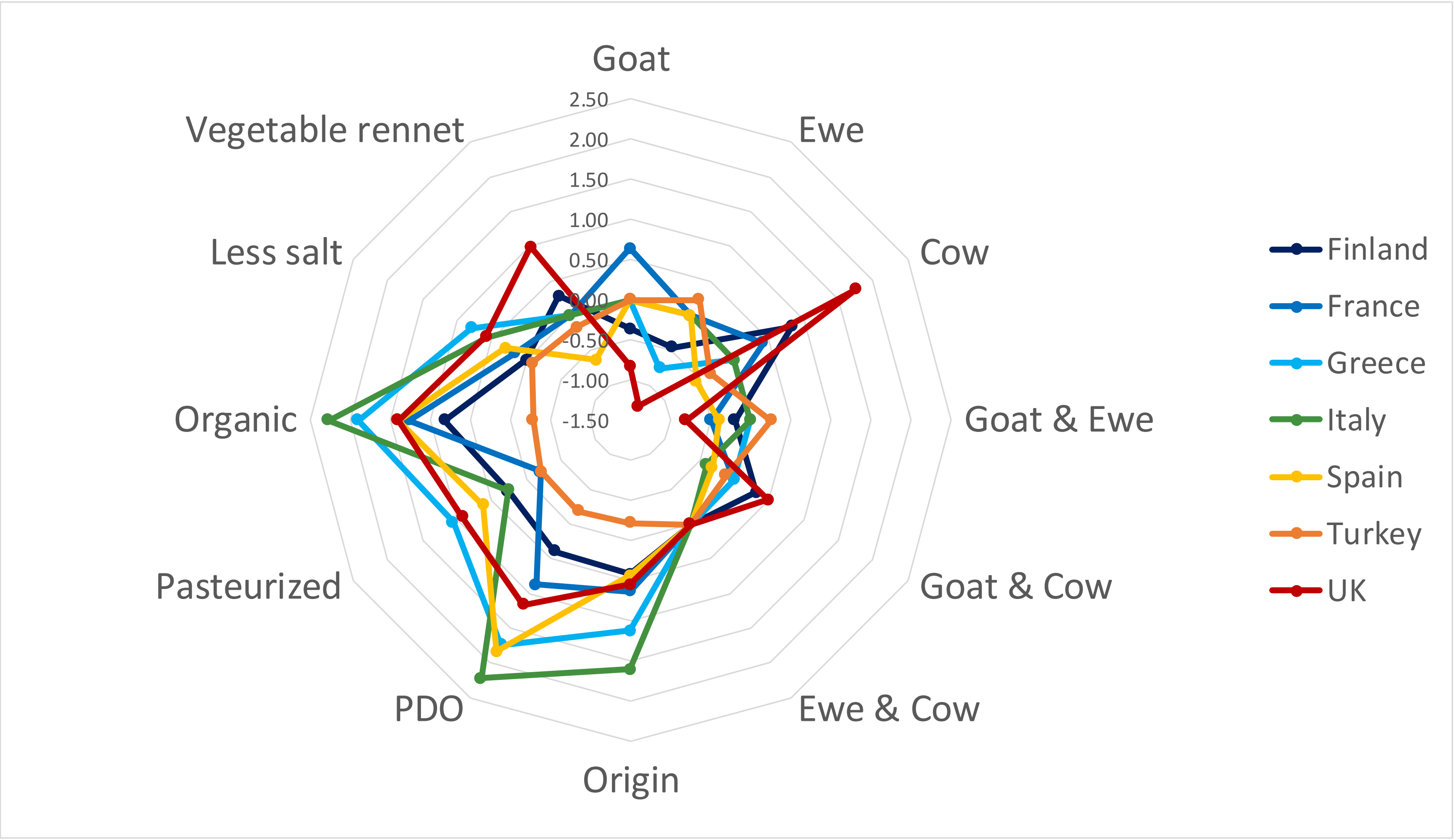
WTP for PDO and organic label (€)



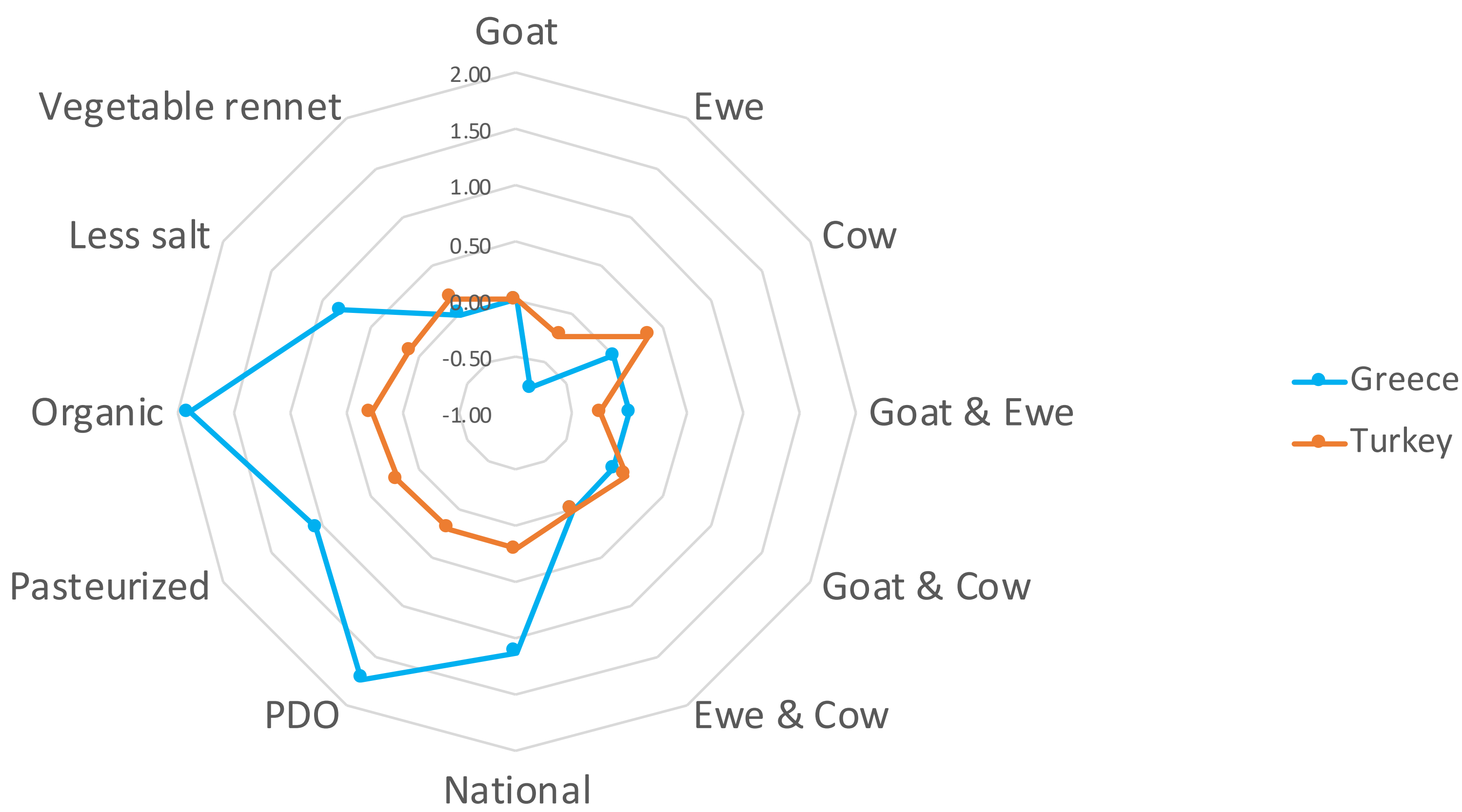
WTP for pasteurization, less salt & vegetable rennet (€)



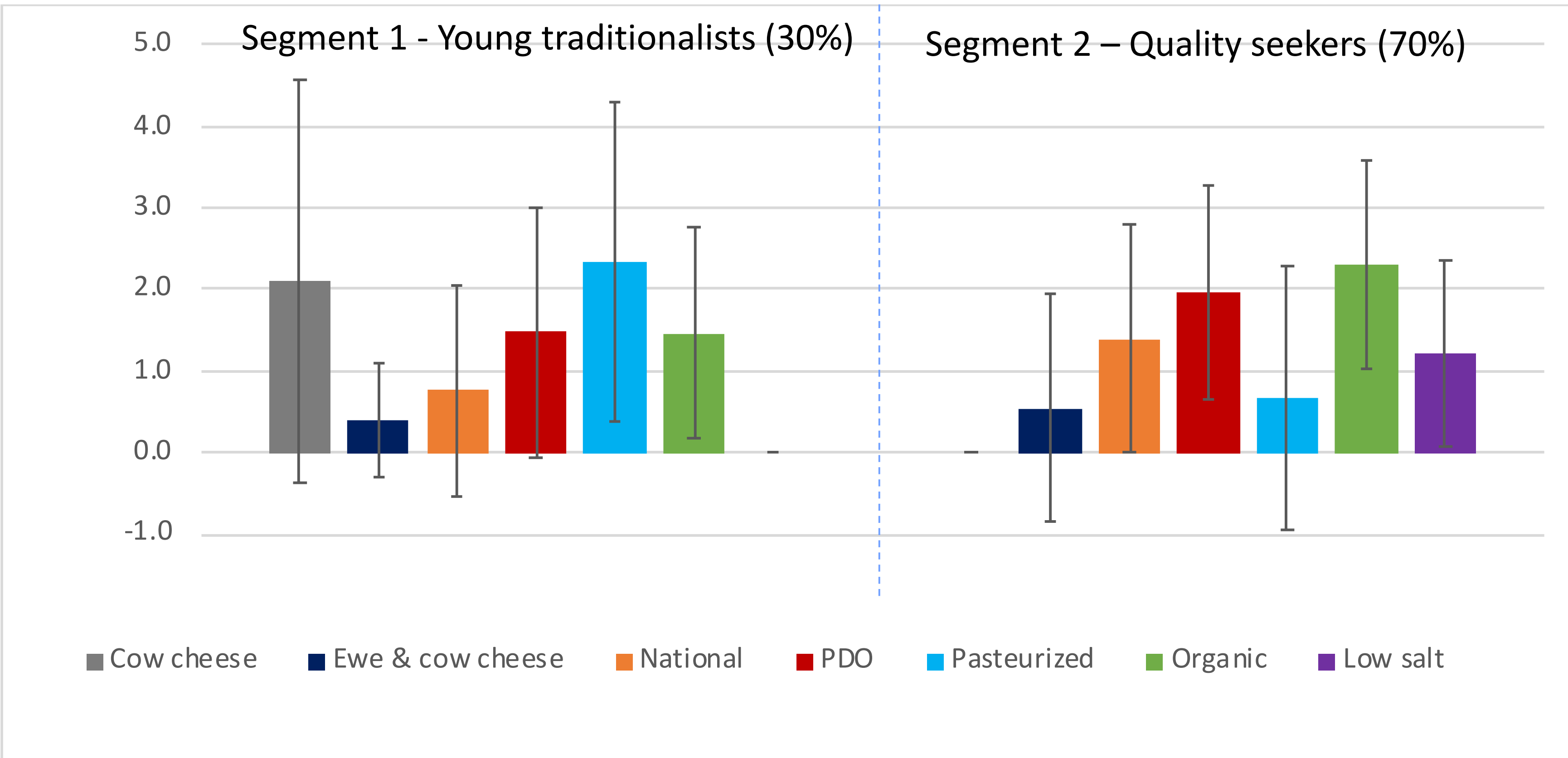
Average Willingness-to-Pay (€) Comparison with other countries



Average Willingness-to-Pay (€) GR & TR Cheese



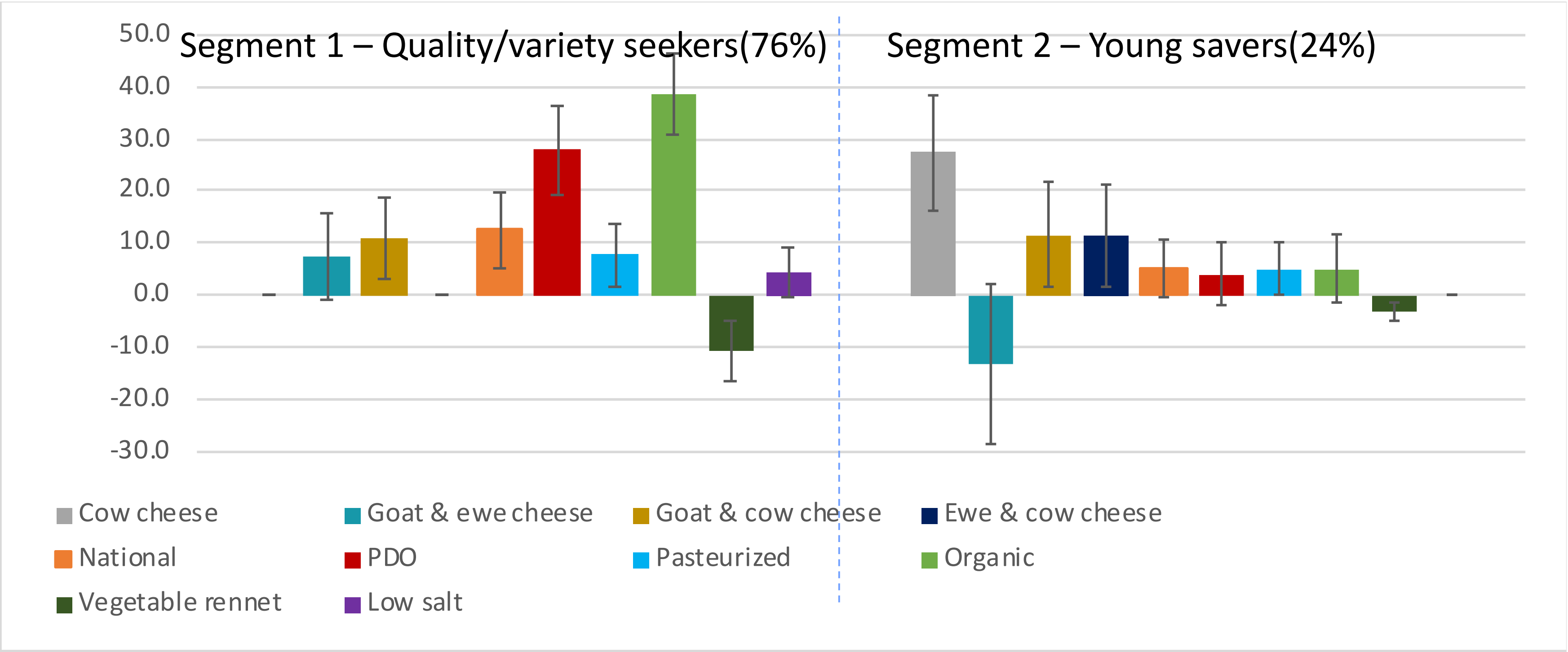
GR Cheese segments (WTP €)



GR Cheese segments

	Sociodemographic	Behavior	Knowledge	Psychographics	Main attributes
Segment 1 – Young traditionals (30%)	18-34 years old, students, male, singles and young couples	More frequent beef and lamb consumer. Buys lamb chops at the butcher.	Buy cheese in blocks	Non organic	Pasteurized, cow cheese, PDO, Organic
Segment 2 – Quality seekers (70%)	Older people, 44-64 years old, retired, wider families	Special occasion, also buys Roquefort and Pecorino, More frequent ewe/goat cheese consumers, buy cheese in block/sliced, consumption stable/increased	Trust on family advice and experience .	Organic, higher ethical concerns	Aged cheese, Organic, PDO, National, low salt

TR Cheese segments (WTP ₺)

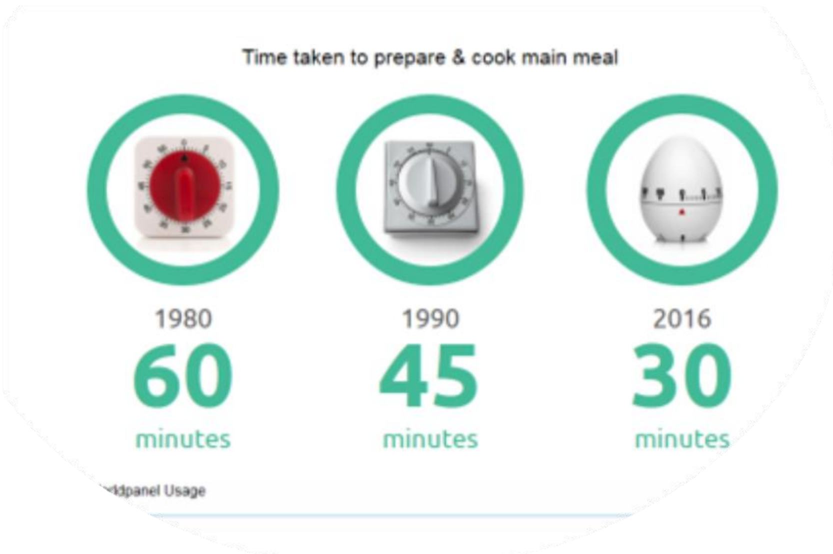


TR Cheese segments

	Sociodemographic	Behavior	Knowledge	Psychographics	Main attributes
Segment 1 – Quality/variety seekers (76%)	25-54 years old, employeed, high income	Roquefort, ewe/goat cheese regular consumer, increased consumption in the last 3 years	Believe they have higher knowledge	No price concerns, Neophilic, organic, Convenience	Organic, PDO, National, Animal rennet, Mix goat cheese
Segment 2 – Youns savers (24%)	18-24 years old, students, low/medium income	Not a goat/ewe cheese regular consumer, also buy at the local market, stable onsumptionc	Able to recognize sheep/goat cheese, feel they have less knowledge.	Price concerns, Neophobic, not organic, not convenience	Cow or cow mix cheese, No goat & ewe. National, Pasteurized, organic

Challenges: Changing families & habits

Households spend less time preparing and cooking meals

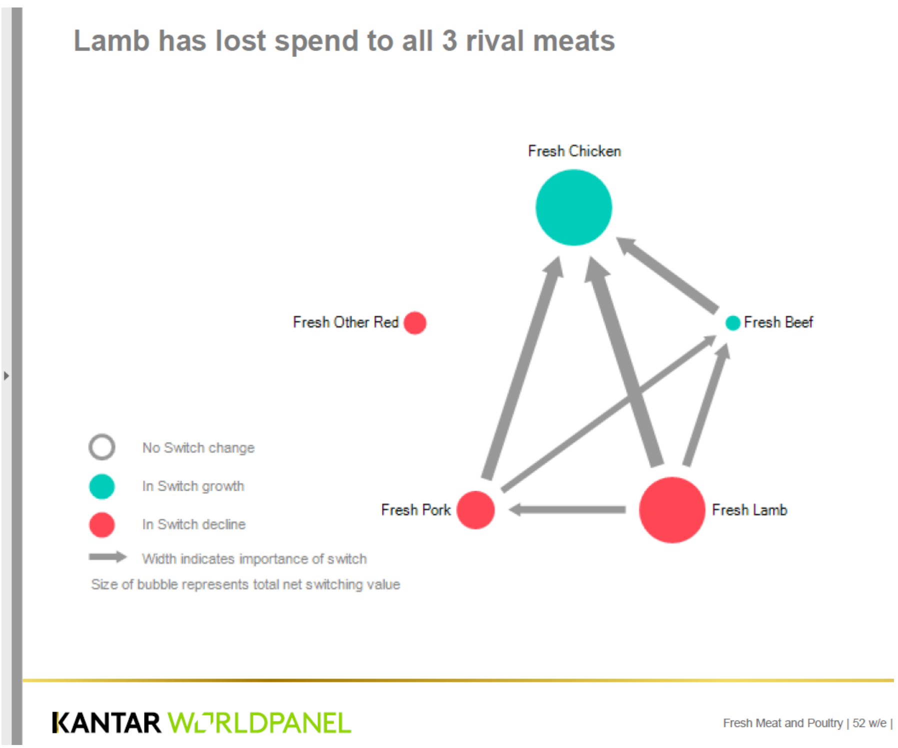


After several years of shifting away from full-service restaurants and fine dining in order to reduce their expenses, Greeks are starting to trade up in their fast food option, treating themselves with economy yet more premium fast food alternatives. As a result, limited-service restaurants posted the fastest growth in 2018, whilst the average spend per transaction witnessed a hike amidst the premiumisation trend.
(Euromonitor, 2019)

Ready-to-eat or Ready-to-cook meals?
12% GR households buy (Source: MARC)

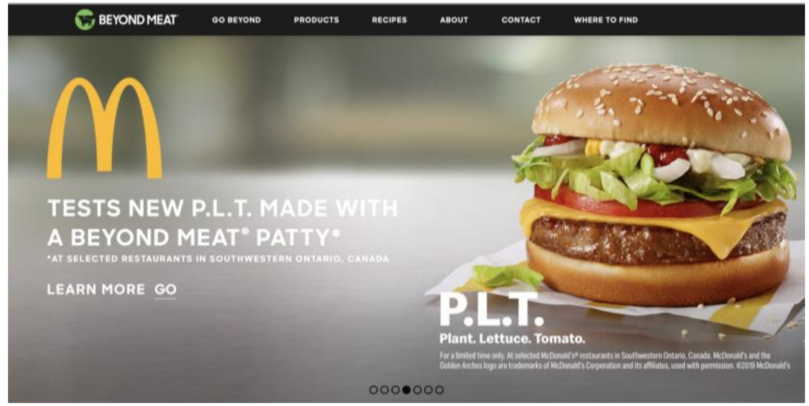
Eating out-of-home?

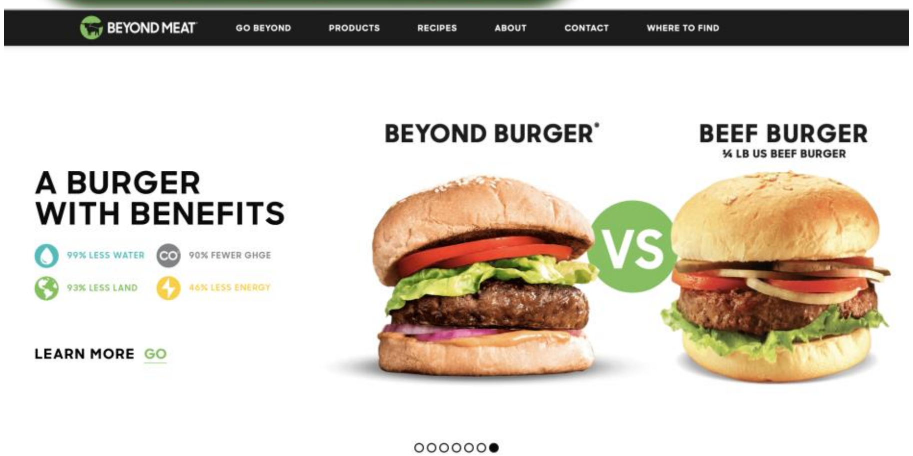
Challenges:
Switching to other meats….



- GR per capita meat consumption: 75 kg, of which 13 kg of sheep and goat meat
- TR per capita meat consumpion 25 kg, of 4.3 of sheep meat.

(Source: FAOSTAT-OECD)





and Beyond meat!

https://www.beyondmeat.com

and beyond milk (no-mooh cheeses)

Antifragility

- «**Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragile gets better**» (N. Taleb)
- The phenomenon is well studied in medicine, where for example Wolff's Law describes how bones grow stronger due to external load.
- According to Taleb, depriving systems of vital stressors is not necessarily a good thing and can be harmful.

How to become antifragile?

- The small ruminants sector is mainly unbranded (meat) or, at the best, “under-branded” (cheese>).
  - You have generic/PDO cheese names (like feta, pecorino), or PDO/PGI labels in meat, but no real renown brands
  - Even organic label is generic, although it increases value added
- Introducing and marketing (collective) **brands** and **fancy packaging** may be a strategy to increase sales especially in the meat sector.

Nice to meat you!

- There is nothing as little seducing than meat. Dead flesh and blood are not really sexy, unless for those who love *The walking dead…*
- Sexy, attractive, trendy packaging may help

What about cut innovations?

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Or convenience innovations?

Or packaging innovation?

- Packaging allows innovation in terms of shape (that has inherent symbolism), labelling, as well as serving suggestions, etc.
- **Mini-portions** are also a packaging innovation but need nudging
- That's a mean to achieve brand equity

We live in a reputation economy

- As consumers **we value experience more than knowledge** and **benefits more than product characteristics**
- (Social) Media, Influencers, Chefs are very important



Chefs can help making sheep/goat meat and cheese more trendy

Pictures from iSAGE taste lab at TerraMadre/Slow Food in Turin, 2018

How to become antifragile?

- The major idea is to develop antifragility by design, building a system which improves from environment's input.
- An antifragile S&G value chain would have:
  - Focus on the **right knowledge**, making it possible to detect, understand, and endure the changes affecting the supply chain
  - **Real-time adjustment**, to react while there is still a chance to influence positive change
  - A **network approach** instead of a linear pipeline, avoiding single points of failure

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