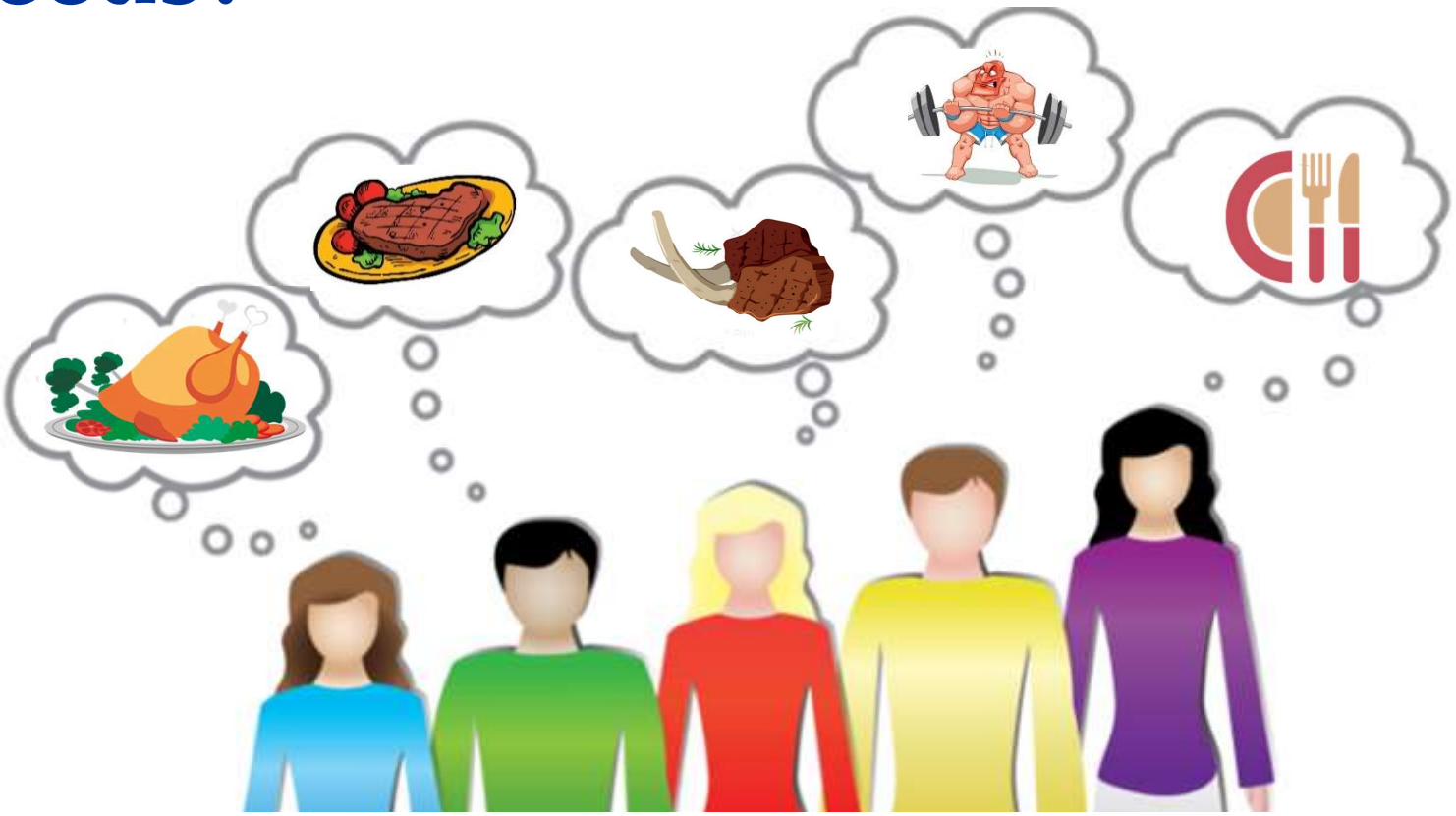
iSAGE Training
3-4 December 2019 – Wetherby, UK

Assessing consumer needs and developing new products

Emilia Cubero Dudinskaya
Raffaele Zanoli

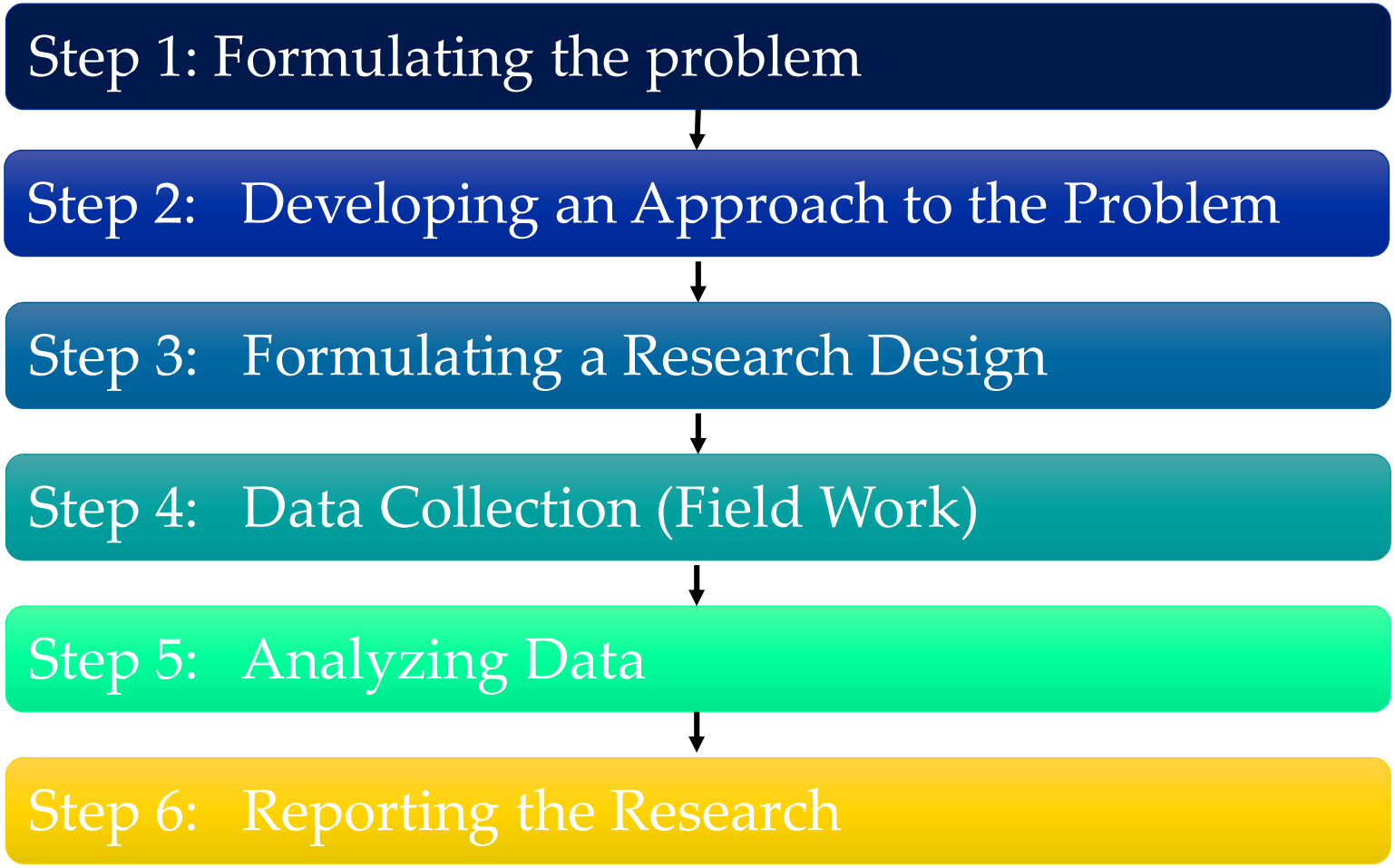
Università Politecnica delle Marche (UNIVPM)

How do we know what a customer needs?



Marketing Research!

Marketing research process



Marketing research process

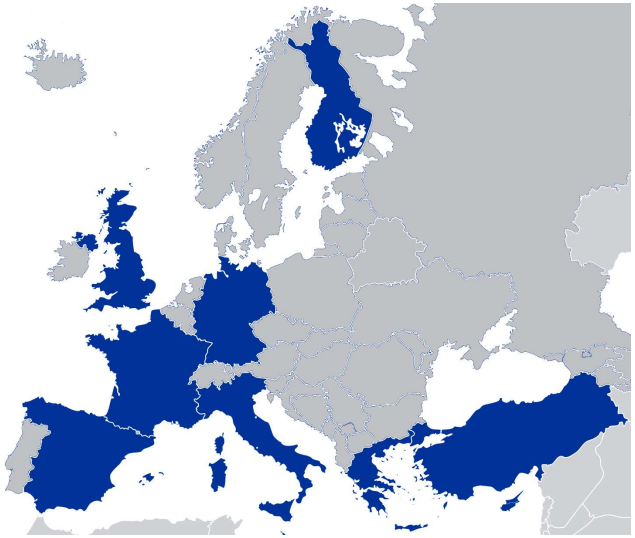
Step 1: Formulating the problem

Formulating a research problem in cross-cultural settings

- Comparability → similarities and differences
  - Define the marketing research problem in terms of domestic and foreign environmental and cultural factors. Then, compare.
- Equivalence
  - The problem must have the same meaning and role across cultures.
  - Must be measured using the same methods and measures.

Example of formulating the problem in cross cultural research

Sheep/Goat meat consumers and non consumers



ES, FI, FR, GR, IT, TR, UK.

Management problem: Should we change the advertising message, the product label?

Example of formulating the problem in cross cultural research

Comparability:

- Familiar with Lamb consumption → special occasion (Christmas, Easter).
- Different levels of interest in health

Equivalence:

- Popular cuts vary between countries
- Preference → local, except Finland

=> Consumer preferences → What are consumer preferences and barriers regarding their consumption of lamb meat?

Marketing research process

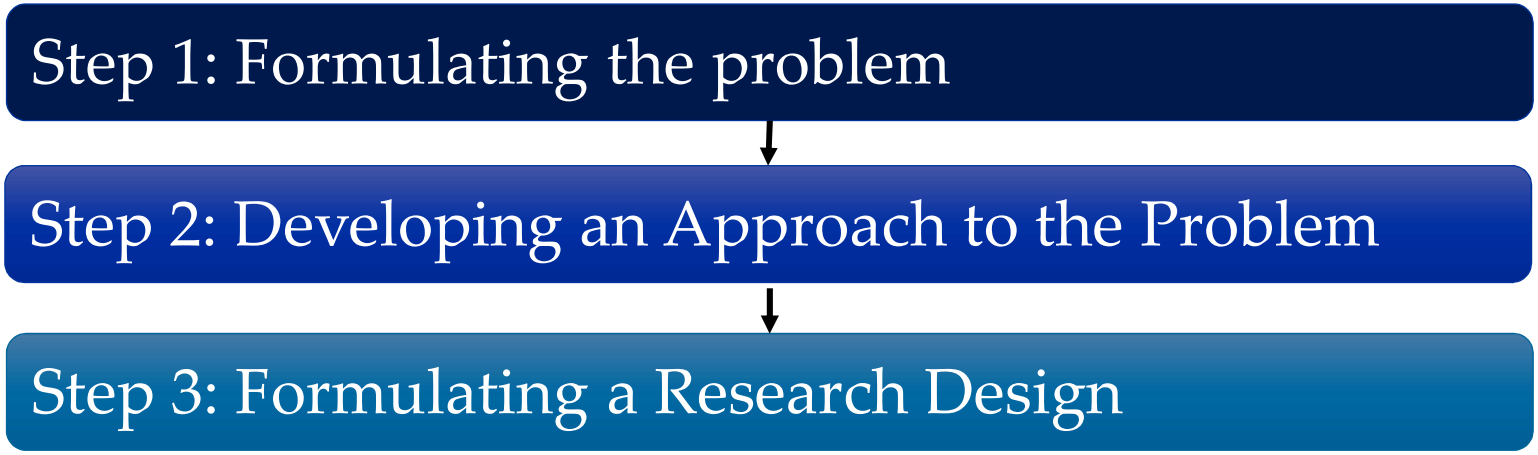
Step 1: Formulating the problem

Step 2: Developing an Approach to the Problem

Step 2: Developing an Approach to the Problem

- Marketing research → cognitive approach
- Two main views:
  - Etic → Universal view
    - Investigating many cultures, an absolute or universal criteria applies.
  - Emic → Culturally specific
    - Examines the phenomenon from within the system (only one culture).

Marketing research process

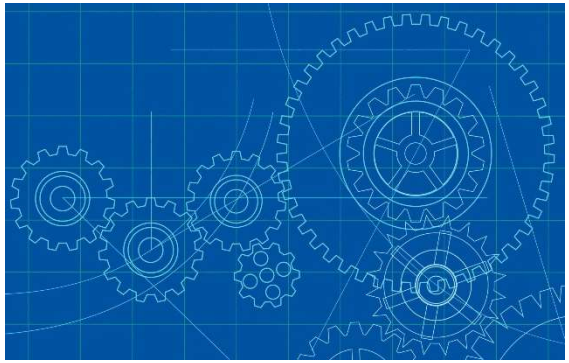


Step 3: Formulating a Research Design

- A **research design** is a framework or blueprint for conducting the marketing research project.

- Affected by the nature of the research problem
  - Quantitative: What?
  - Qualitative: How? Why?
  - Mixed: Enhance the scope

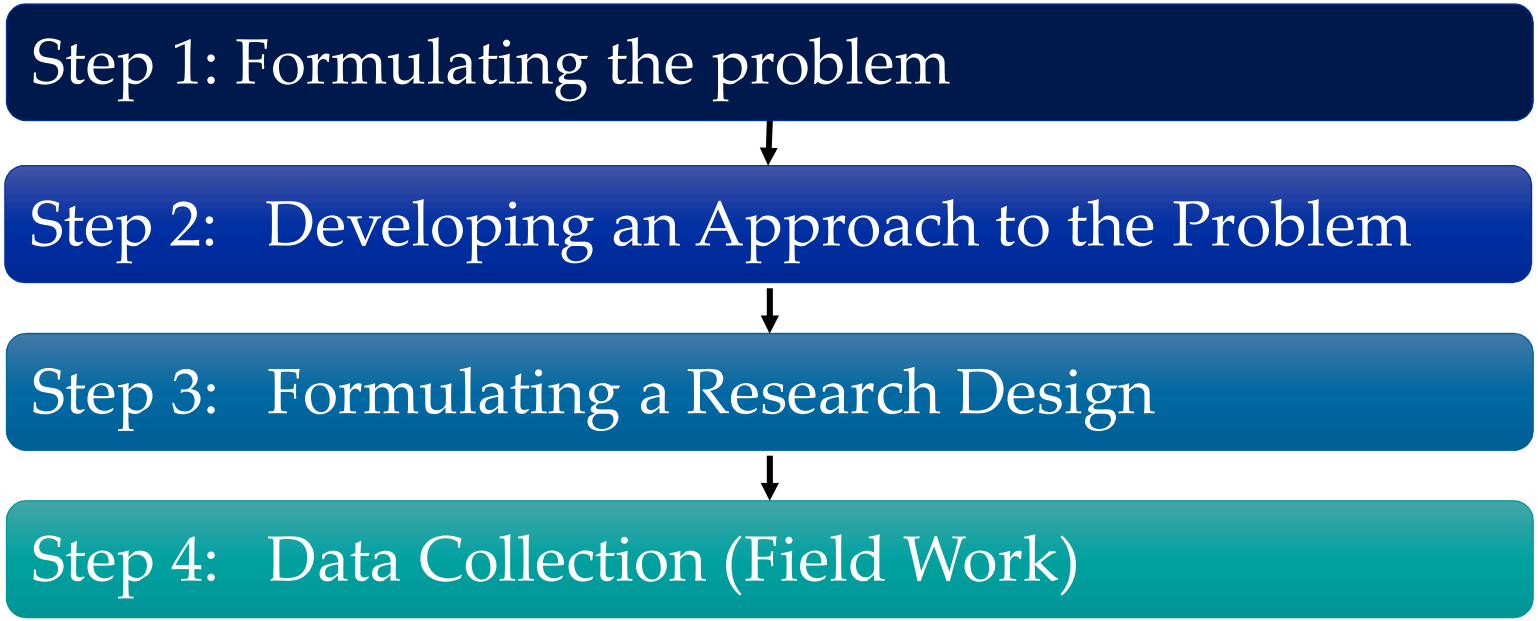
  and comprehensiveness.



Qualitative vs. quantitative research

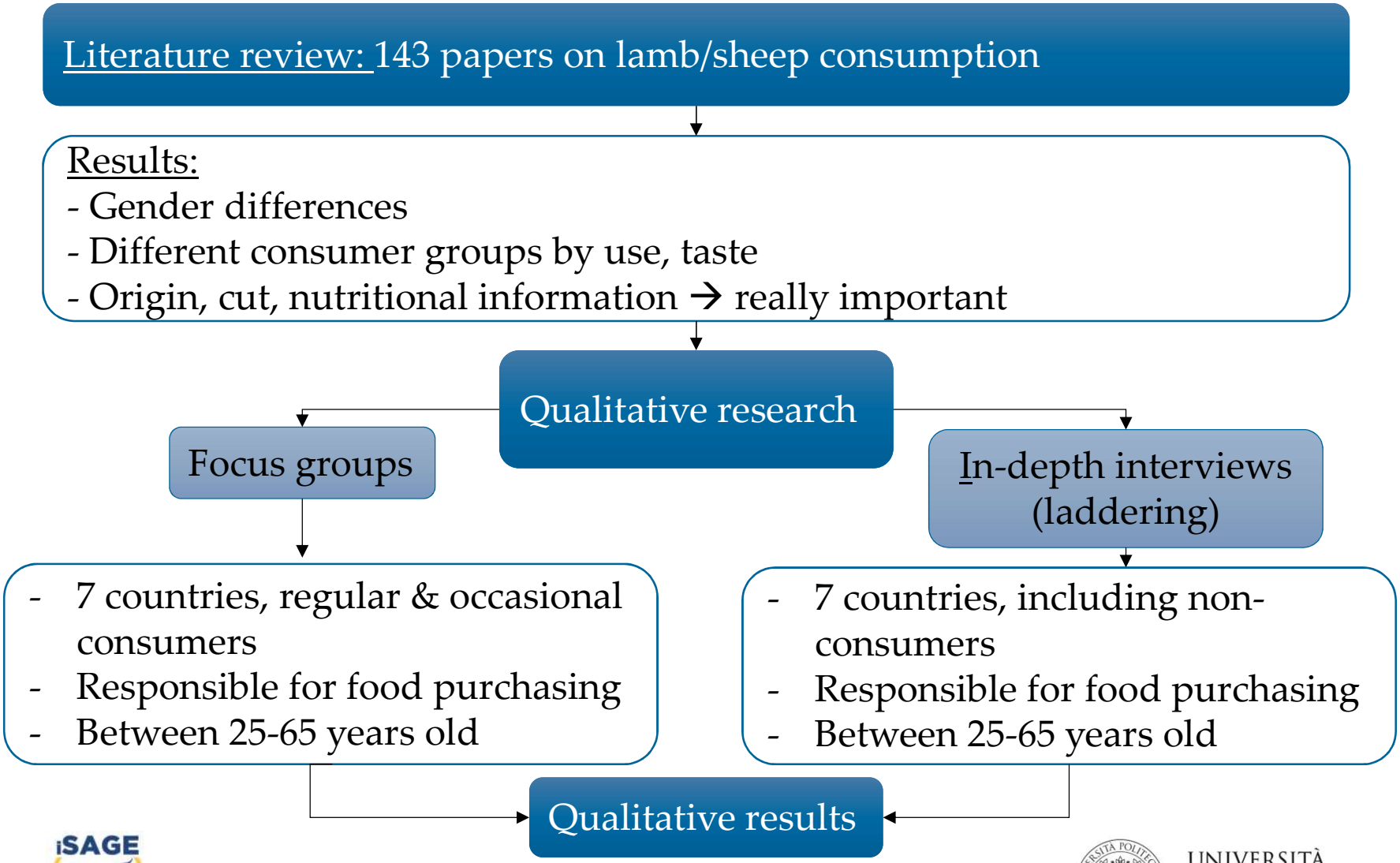
	Qualitative Research	Quantitative Research
Objective	To gain a deeper understanding, contextualize a phenomenon, the why and how of things	To quantify the data and generalize the results from the sample to the population
Process	Inductive, subjective, recurrent	Deductive, objective, sequential
Sample	Small number of non-representative cases	Large number of representative cases
Data Analysis	Non-statistical	Statistical
Outcome	Develop an initial understanding, theory development	Recommend a course of action
Examples	In-depth interviews, focus groups case studies	Surveys, Experiments

Marketing research process



Qualitative research

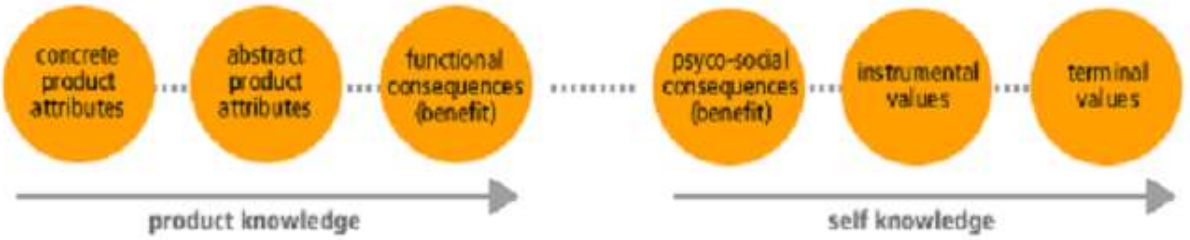
What we did?


Literature review: 143 papers on lamb/sheep consumption
Results:
- Gender differences
- Different consumer groups by use, taste
- Origin, cut, nutritional information → really important
Qualitative research
Focus groups
In-depth interviews (laddering)
- 7 countries, regular & occasional consumers
- Responsible for food purchasing
- Between 25-65 years old
- 7 countries, including non-consumers
- Responsible for food purchasing
- Between 25-65 years old
Qualitative results

Qualitative research: Laddering and means-end chain analysis

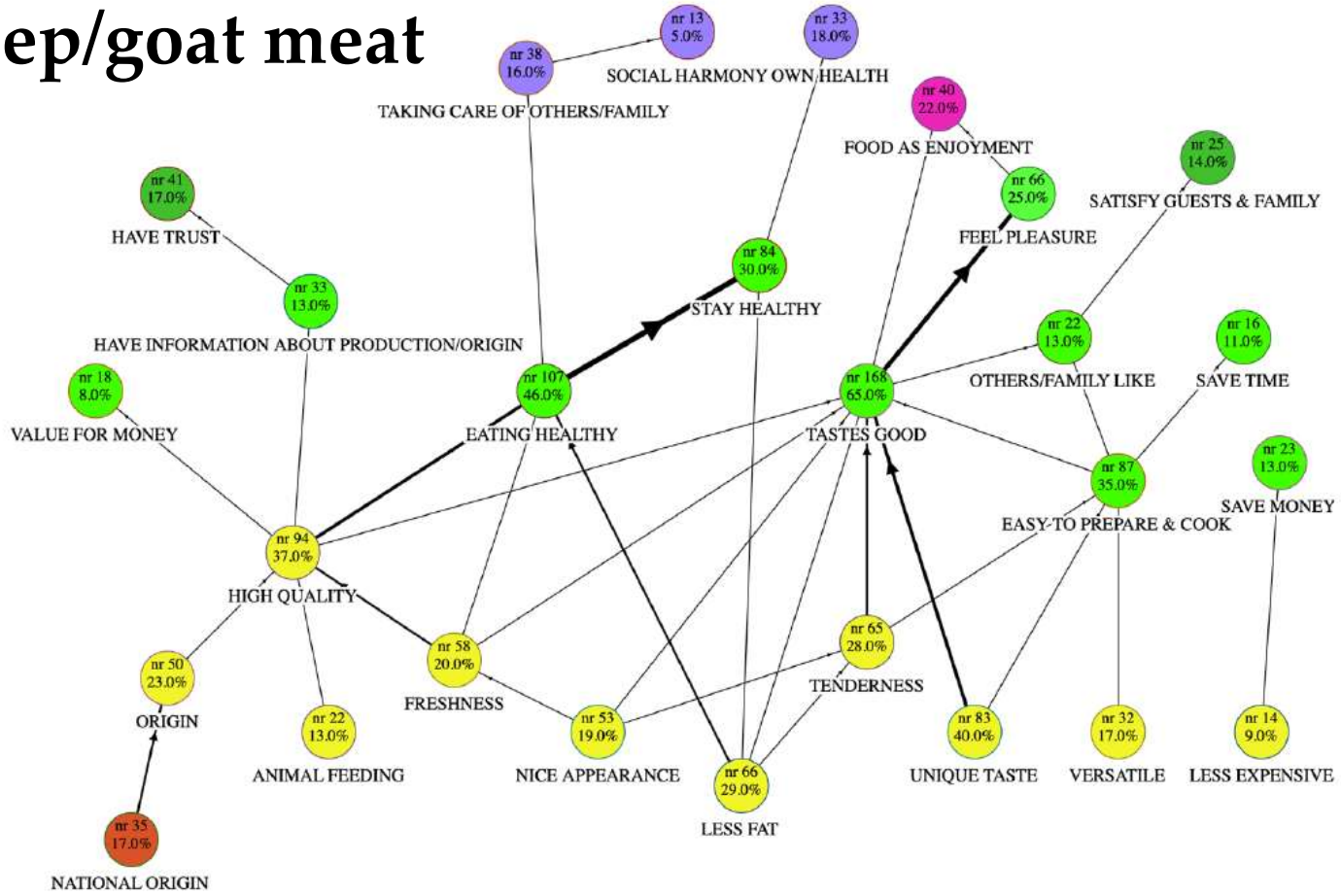
Interviewing technique that attempts to understand and uncover the link between product attributes, personal outcomes (benefits), and values → It is achieved by repeating the following question:

Why is this important for you?



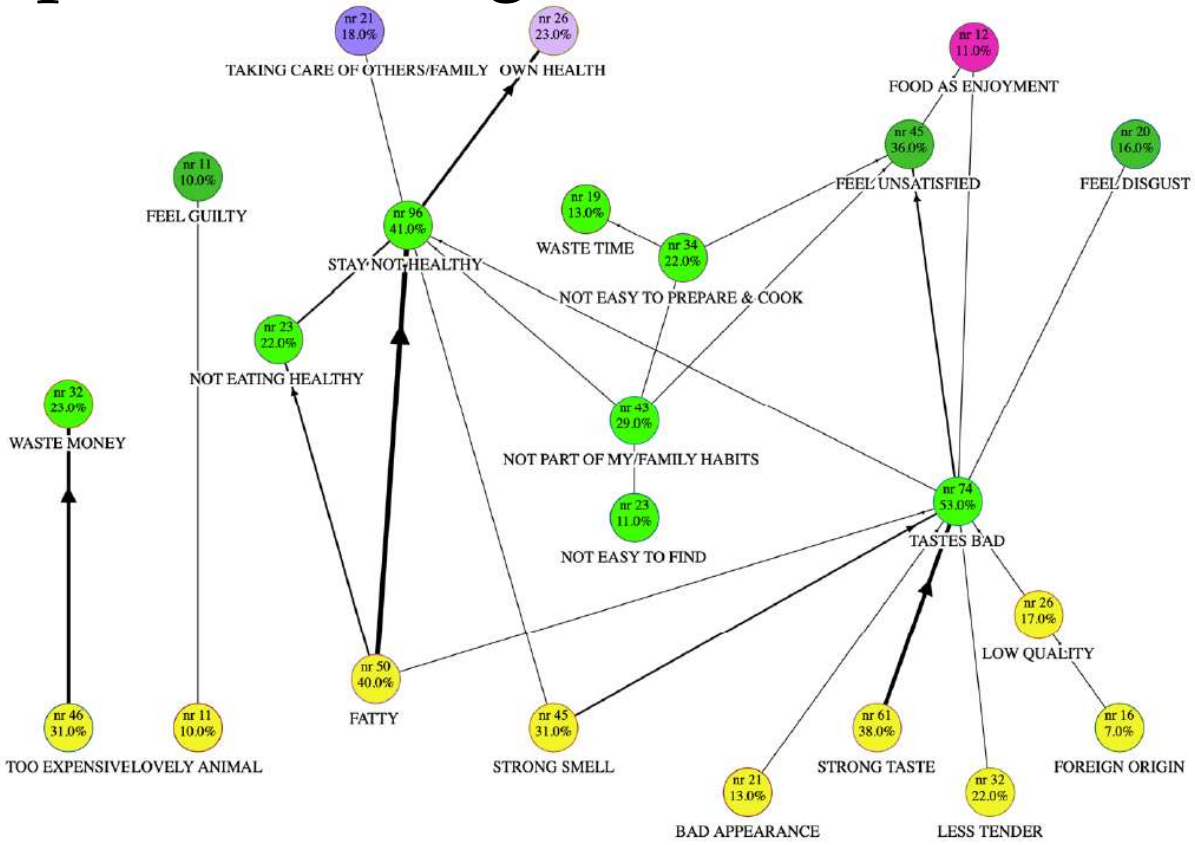
Qualitative results

Cognitive structure of motivations to purchase sheep/goat meat



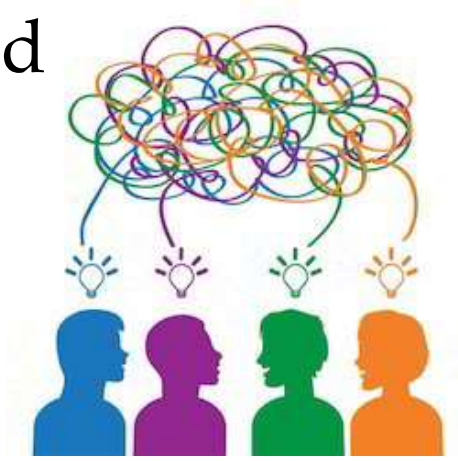
Qualitative results

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



Qualitative research: focus groups

- Pre-screened, homogeneous group (per country)
- Requires a moderator, assistant, video/voice recorder, comfortable place and refreshments
- Participants are encouraged to talk openly about their opinions and respond to other members
- Audiovisual assistance might be used
- Everybody gets a chance to talk
- Focus on a specific topic



Qualitative results: focus groups

"I prefer 'arrosticini' when I'm with my friends, but for me and my family I usually cook the lamb in the oven"

Situation

Safety

"Meat from young animals is purer and has less hormones, so I trust to consume more of it"

"I would never consider buying sheep/goat meat from a supermarket or from a butcher whom I don't know personally"

Purchasing place

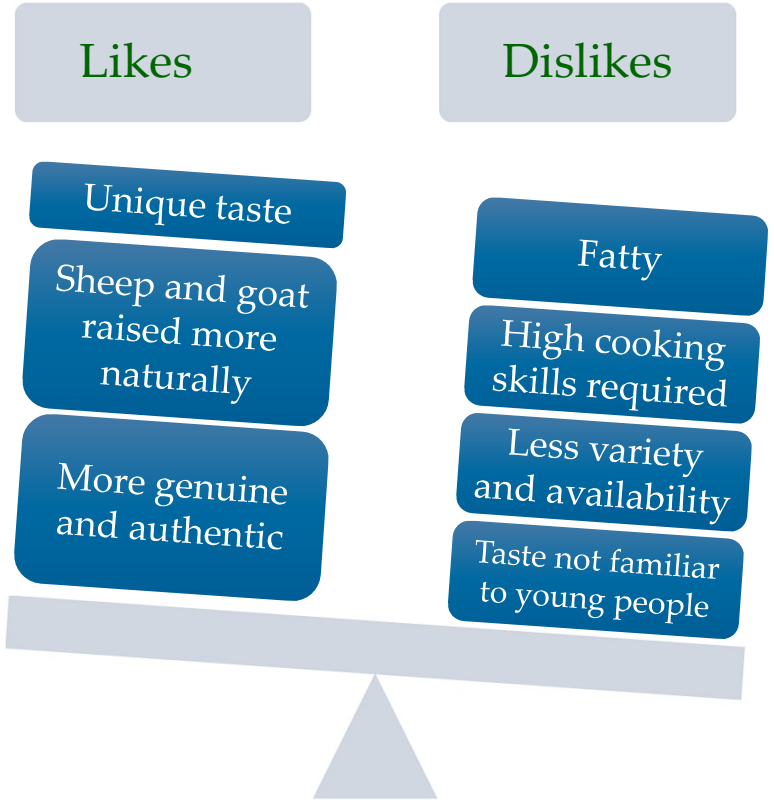
"I must admit I don´t cook much, just easy things, so regarding lamb, I usually buy chops that are very easy to cook"

Convenience

"I reduced the purchase of meat in general…I usually purchase beef meat because it is less fatty but I know that lamb meat is better in terms of genuineness"

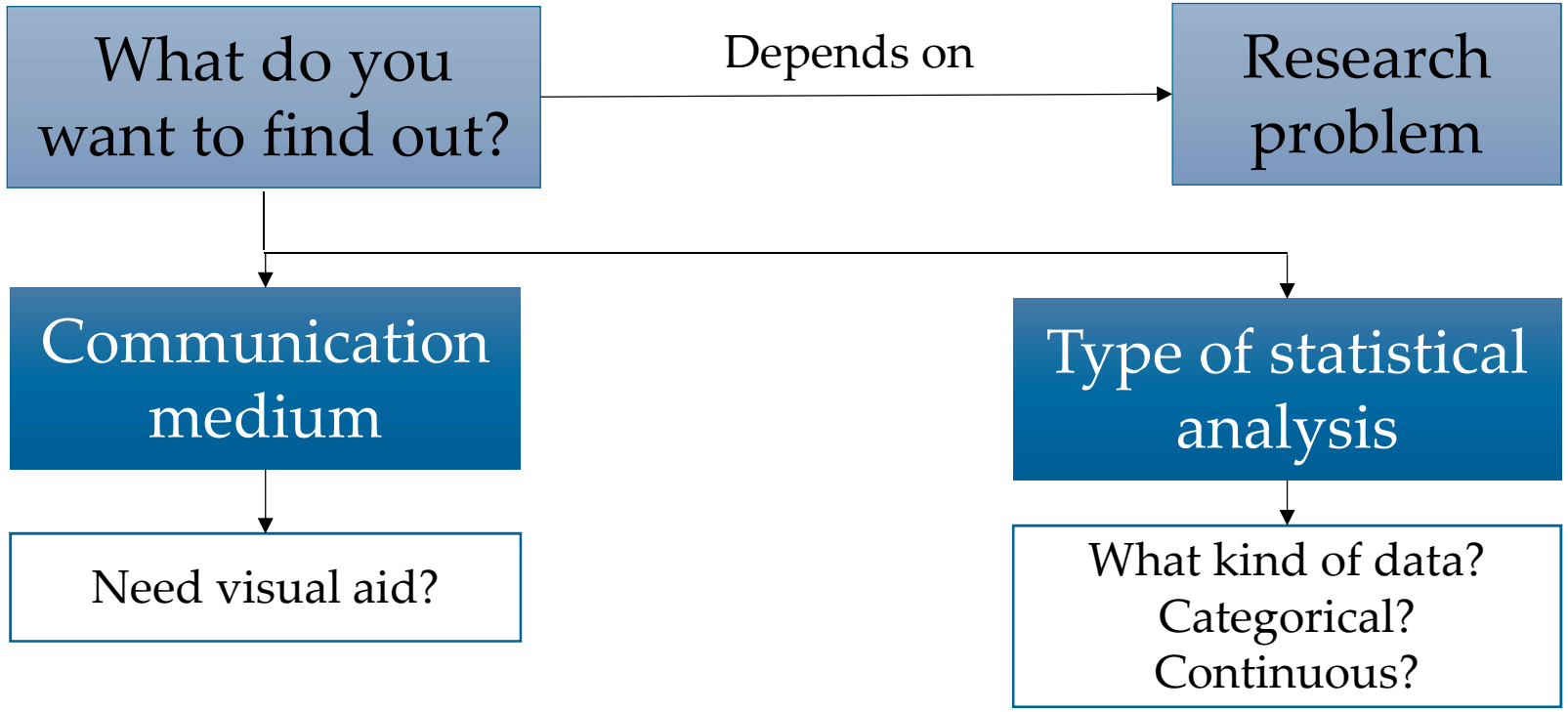
Health

Results summary- MEAT



Quantitative research

Quantitative research: developing a questionnaire



Remember: ask only relevant questions that will provide accurate information

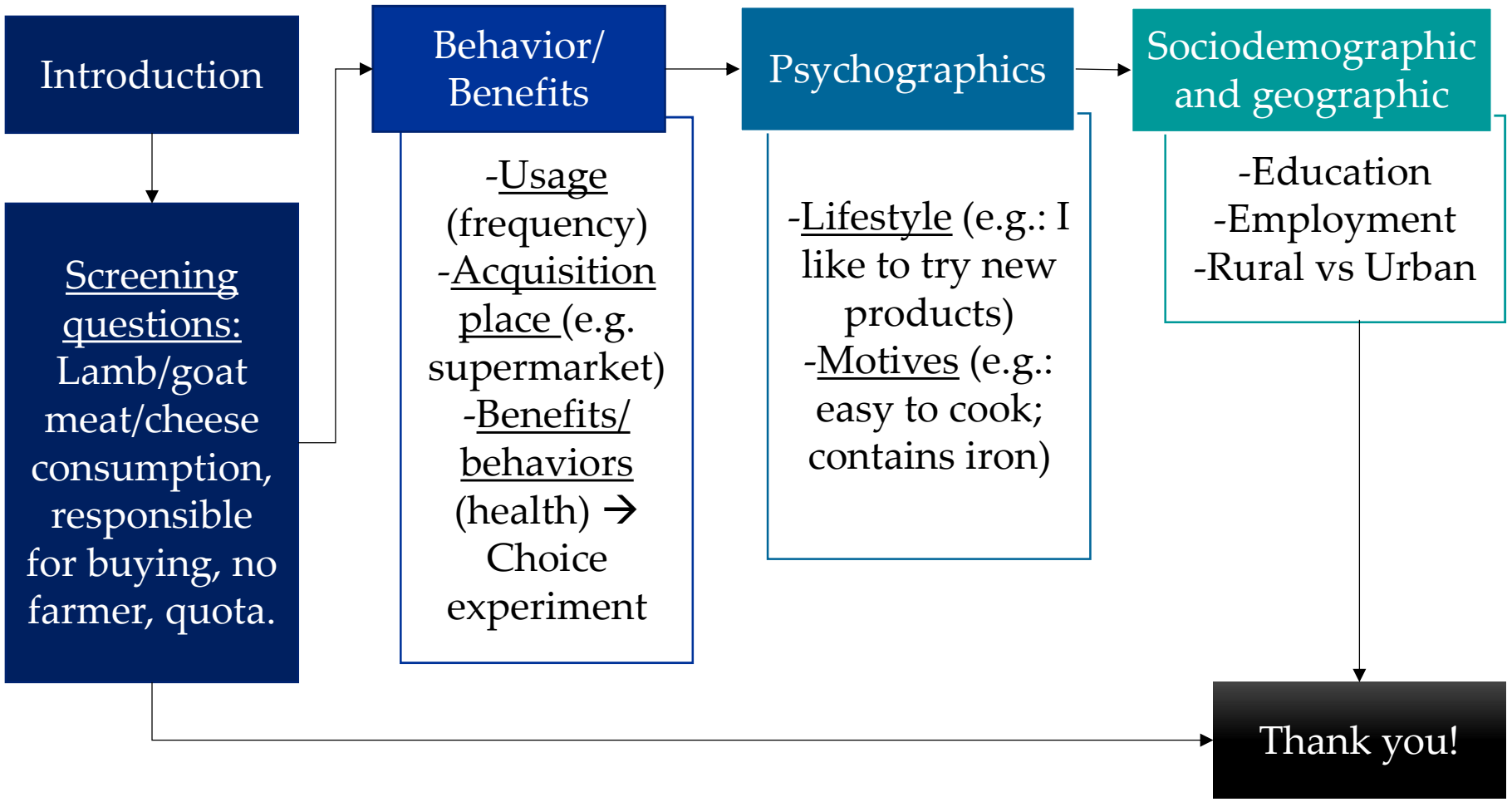
Steps to develop a good cross-cultural questionnaire

- Check previous studies and literature
- Decide on the order and wording of questions and the layout of the questionnaire
  - Use specific questions related to the concept of interest
  - Keep it simple → avoid "and", "/", "or", double negations
  - Avoid bias questions → desirability, leading
- Work with an international team (advisable)
  - Translate and back-translate
- Select the sample
- Pilot test for omissions and ambiguity
  - Correct the problems and pretest again, if necessary

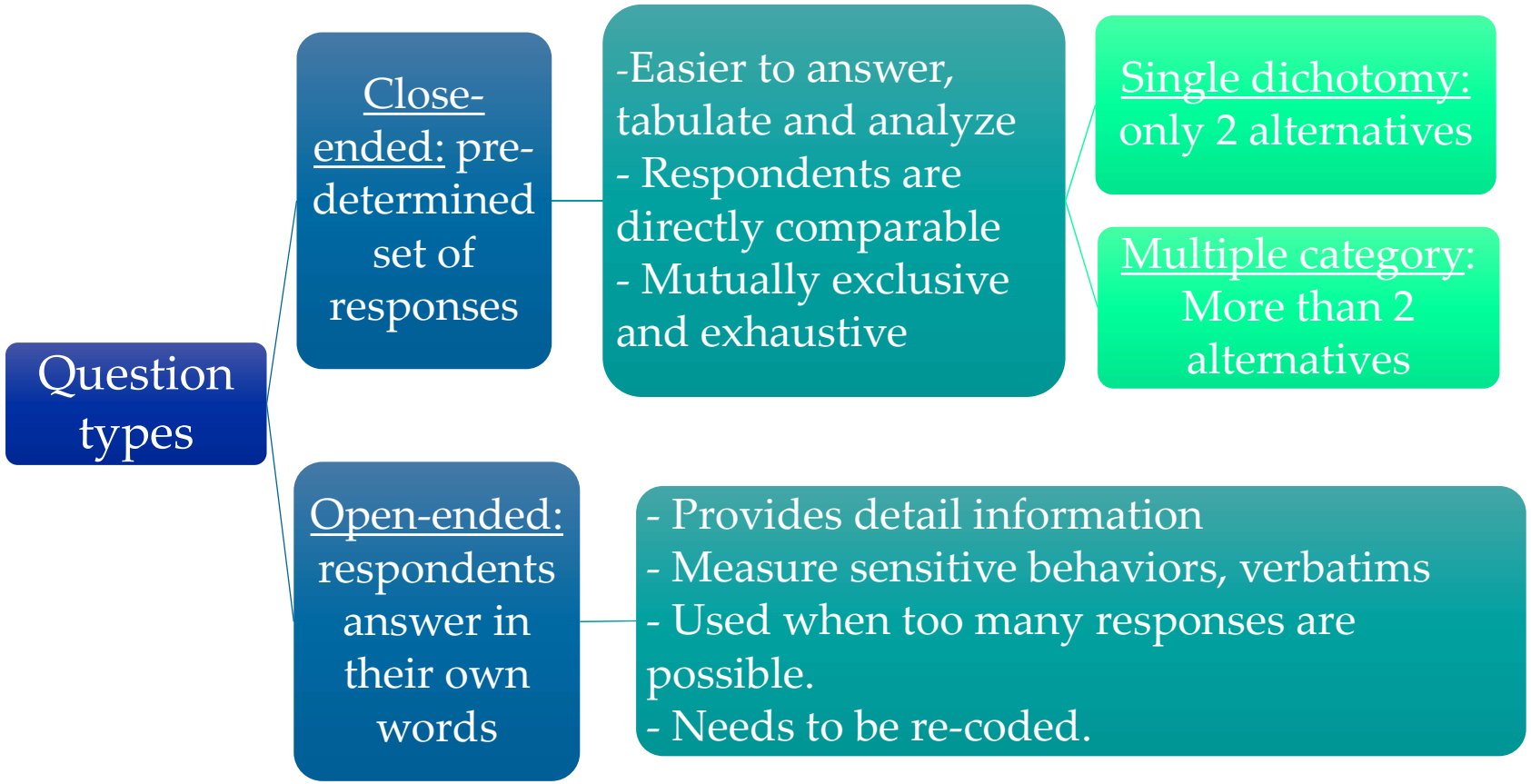
Literature review (99 papers)

- Most meat choice experiments have been done in Spain and United States
- Studies tend to focus on beef, only a few specialize on Lamb meat
  - Most studied atributes: Price, origin, animal welfare (not one unique label), fat content, Organic.
  - Results show that **cooking method, origin, safety, fat content, animal welfare and color** are the most important atributes for consumers.

Questionnaire structure



Question formats



Examples

- Open questions

> Will you please describe your thoughts about a person who shoplifts items from a grocery store to keep from going hungry?
>
> _____

- Dichotomous Questions

> Have you ever eaten lamb meat?
>
> ( ) Yes ( ) No

- Multiple choice

> Which of the following lamb cuts is your preferred one?
>
> ( ) Lamb chops ( ) Lamb cutlets ( ) Lamb leg ( ) Other: _____

Liker scales

- Frequency

How frequently do you eat lamb meat in restaurants?

( ) Never ( ) Seldom ( ) Sometimes ( ) Often ( ) Almost always

- Agreement

I choose products for their taste rather than for their nutritional value

( ) Strongly disagree ( ) Disagree ( ) Neither agree nor disagree ( ) Agree ( ) Strongly agree

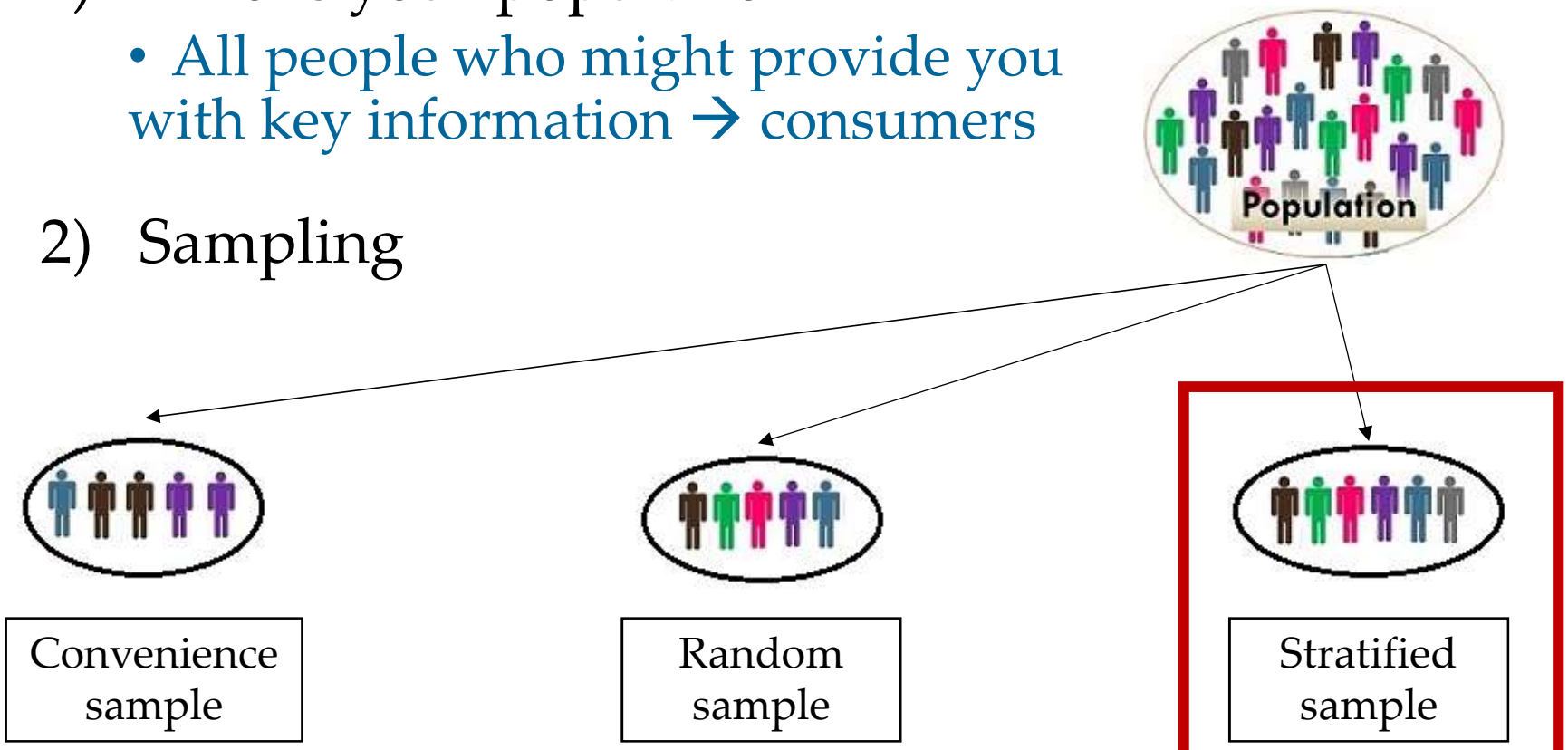
- Bi-polar scales

Familiar product ( ) ( ) ( ) ( ) ( ) ( ) ( ) New product

Who do you want to interview?

1) Who is your population?
   - All people who might provide you with key information → consumers

2) Sampling



Our stratified sample

- Based on Eurostat 2016/2017
- 7 countries
  - Finland, France, Greece, Italy, Spain, Turkey and UK
- Gender/occupation
  - Female, Male
  - Employeed, Unemployed, Retired/Student (inactive population)
- Age
  - 18-24, 25-34, 35-44, 45-54, 55-64 years old

Additional filters

- Responsible or partially responsible for household grocery shopping
- Not related to the food industry
- Specific filters:
  - For meat → Lamb/goat meat consumers

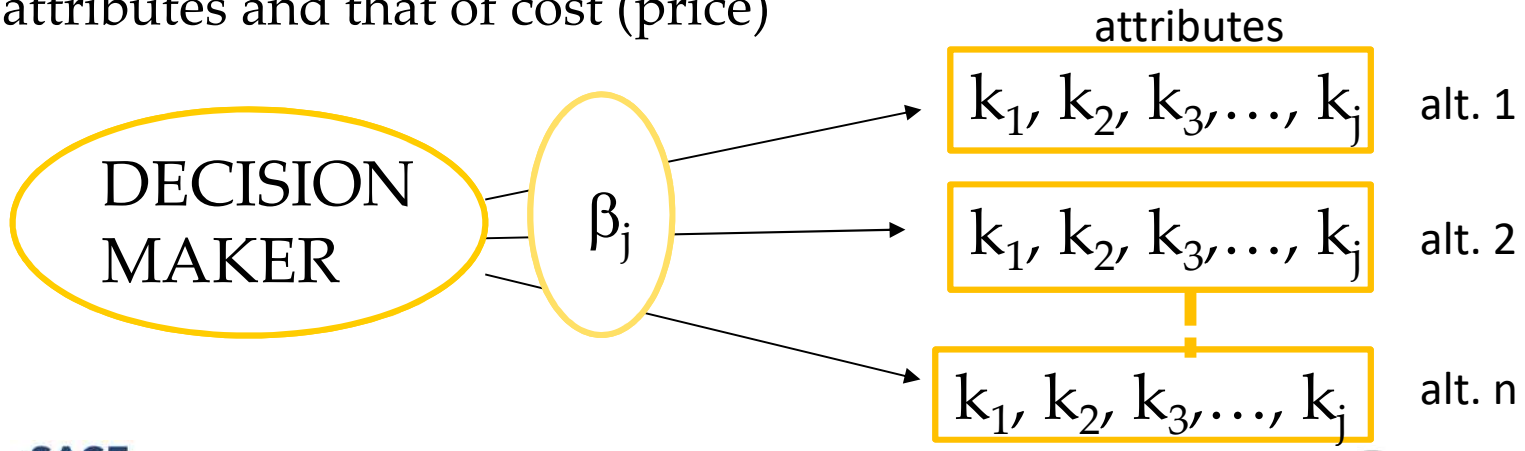
Choice experiment

Discrete Choice method

- Based on Lancaster's theory of demand →

  "The total utility gained from a product is the sum of the individual utilities provided by the attributes of that good" (Lancaster, 1966).

- Respondents (Decision makers) are asked to choose their favorite alternative among several hypothetical alternatives (characterized from a certain numbers of attributes k_J) in a sequence of experimentally designed choice tasks.
- The **Purpose** is to obtain estimates of the taste parameter vector β_J which contains marginal utilities of attributes.
- **Willingess-to-pay** is measured by the ration of the marginal utility of attributes and that of cost (price)



Methods: choice experiment structure - MEAT

- 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 attributes

Price
(+/- average)

Origin
(National, EU, out EU)

Presence or not of:

HIGH PROTEIN CONTENT

Fat

Ready to cook

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%
Slaughter	•Halal •None	•Halal •None	•Halal •None	•Halal •None
Origin	•National •EU •Out of EU	•National •EU •Out of EU	•National •EU •Out of EU	•National •EU •Out of EU
PDO/PGI	•PDO/PGI •None	•PDO/PGI •None	•PDO/PGI •None	•PDO/PGI •None
Organic	•Organic •None	•Organic •None	•Organic •None	•Organic •None
Low carbon footprint	•Low carbon footprint •None	•Low carbon footprint •None	•Low carbon footprint •None	• Low carbon footprint •None
Fat content	•Low fat •Fatty	•Low fat •Fatty	-	•Low fat •Fatty
Protein content	•High protein content •None	•High protein content •None	•High protein content •None	•High protein content •None
Format	•Ready to cook •Normal	•Ready to cook •Normal	•Ready to cook •Normal	•Ready to cook •Normal

Choice experiment attributes

Labels per country

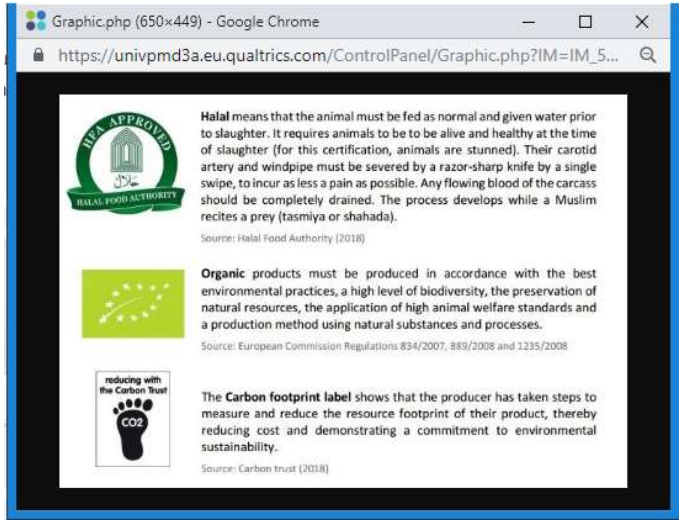
Labels/ Country	Spain	Finland	France	Greece	Italy	UK	Turkey
Halal							
PDO/PGI		-					-
Organic							
Carbon footprint							

Choice experiment instructions

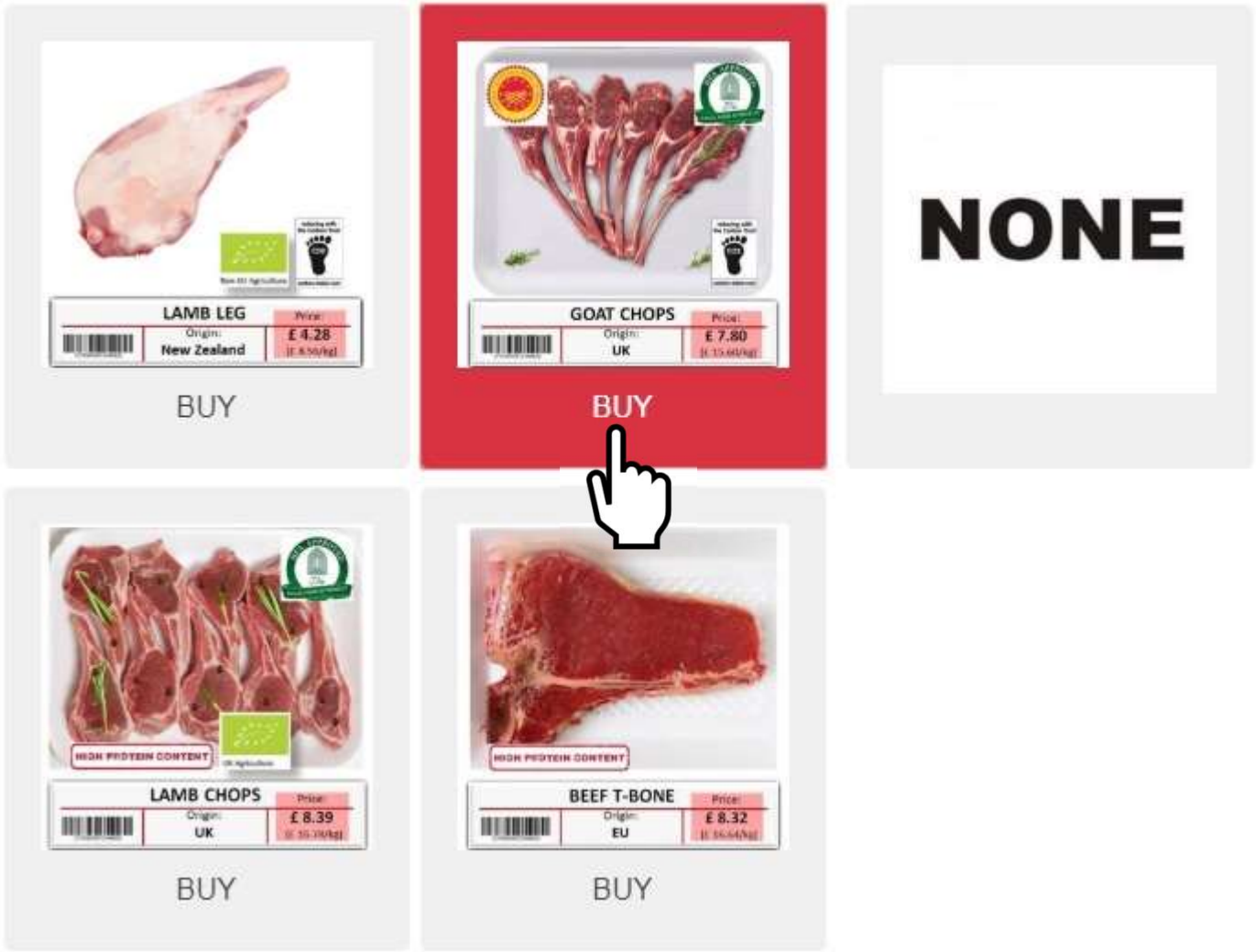
Imagine that it is a **regular weekday** and you decided that you want to eat a dish based on some sort of meat for the next **meal with your family**. You go to the usual place in which you buy meat and the following alternatives are presented to you. If you want to see the image in more detail, you can zoom on it by clicking on top of it.

Please **click "BUY" on the image with the meat** that you would like to buy the most. Then write below how many **trays of 500gr** you would like to buy. If you think you would not buy any of the options, then you can select the option "None".

If you need to refresh the meaning of the labels click here



Choice experiment for meat



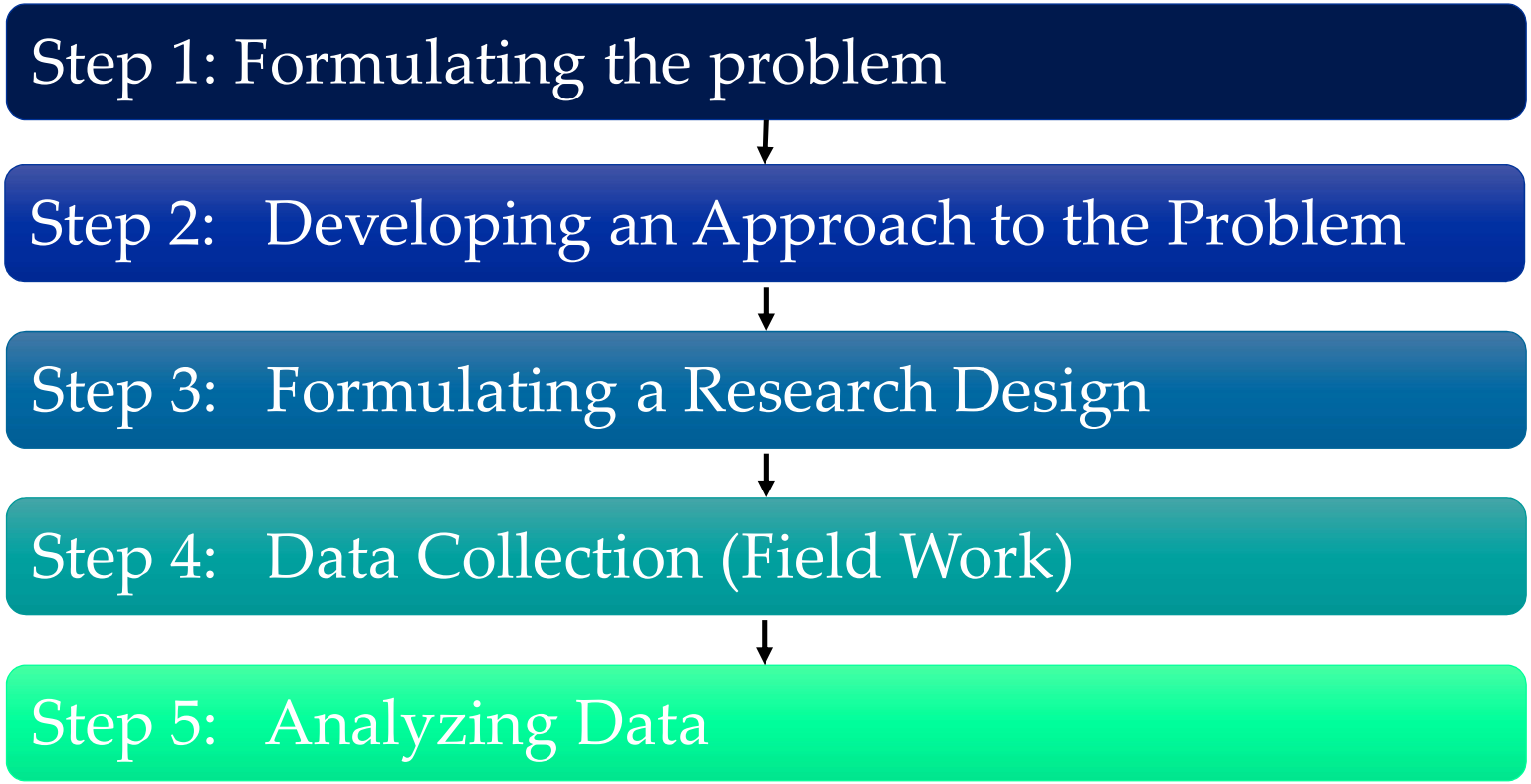
Choice experiment for meat

Data collection for the meat survey

- Data collected from Mid-March to mid-May, 2019

Country	Respondents by May 14th, 2019	Valid responses
Finland	417	413
France	416	414
Greece	403	400
Italy	419	417
Spain	420	417
Turkey	405	391
UK	420	414

Marketing research process

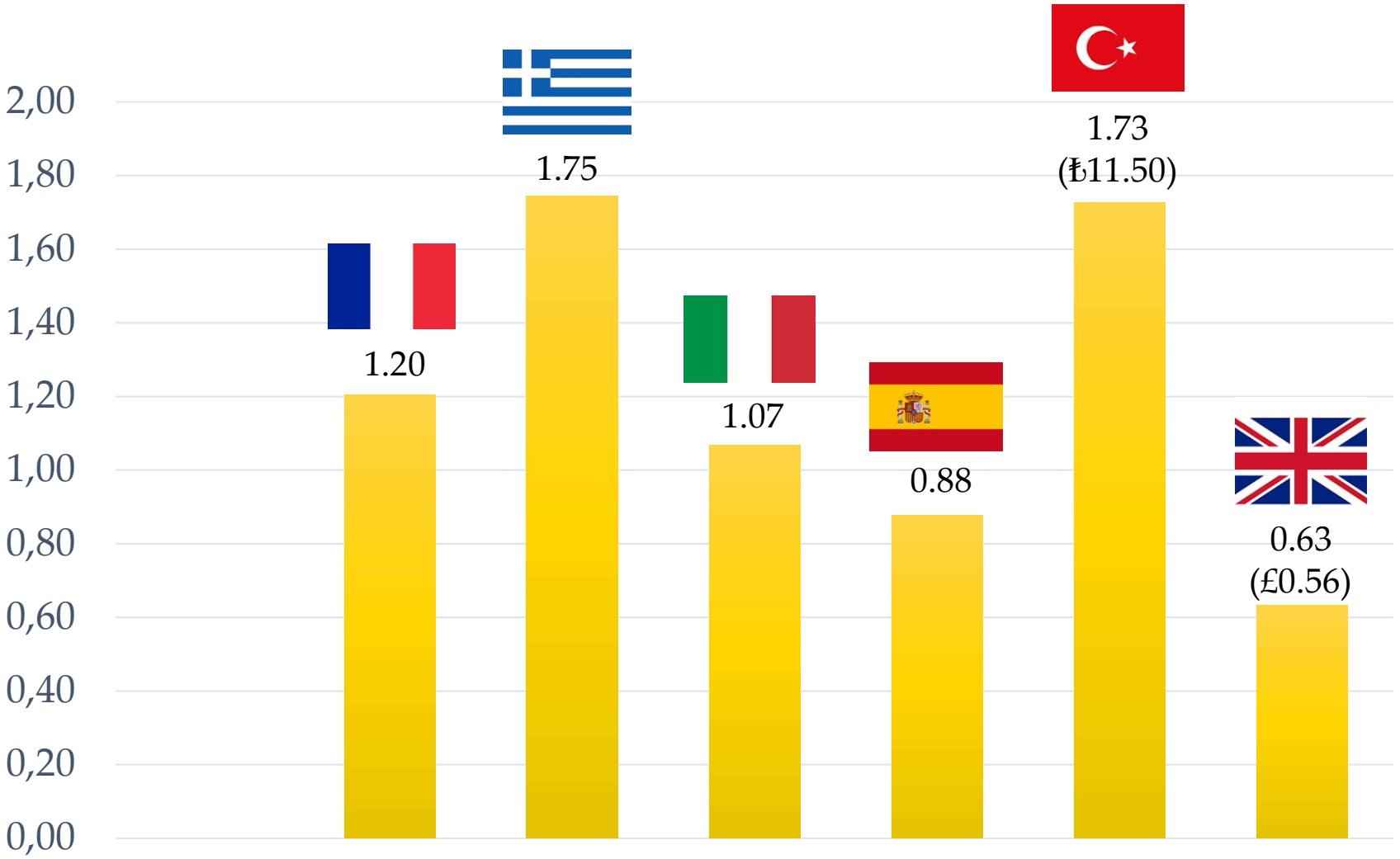


Step 5: Analyzing Data

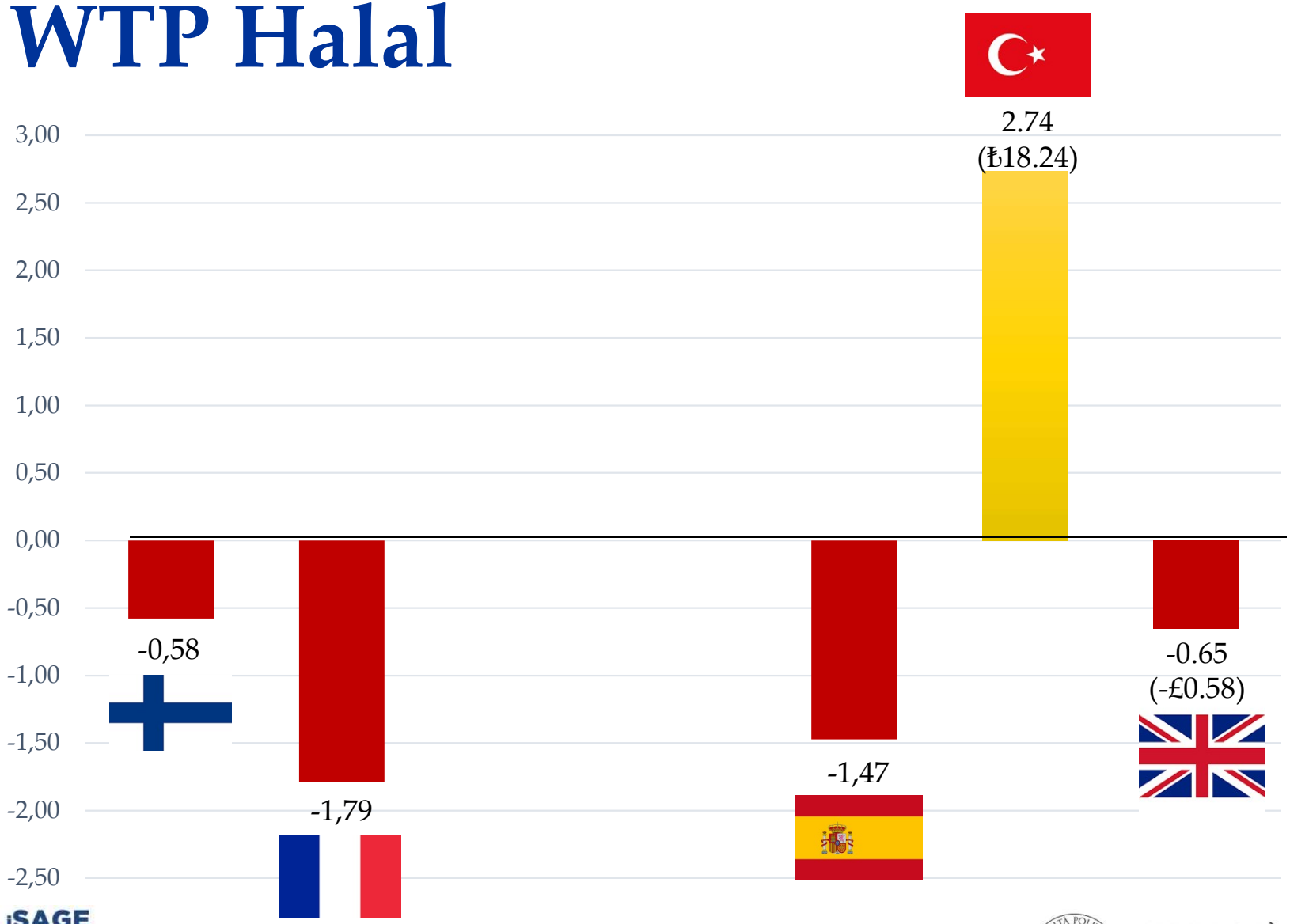
- Coding, data entry and consistency checks
  - Check control questions, time spent, answering patterns.
  - Check for typos when coding data
  - Check for "strange" outliers
- Descriptive and inferential statistics

Results on sheep and goat meat

WTP PGI/PDO


2,00
1,80
1,60
1,40
1,20
1,00
0,80
0,60
0,40
0,20
0,00
1.20
1.75
1.07
0.88
1.73
(₺11.50)
0.63
(£0.56)

WTP Halal

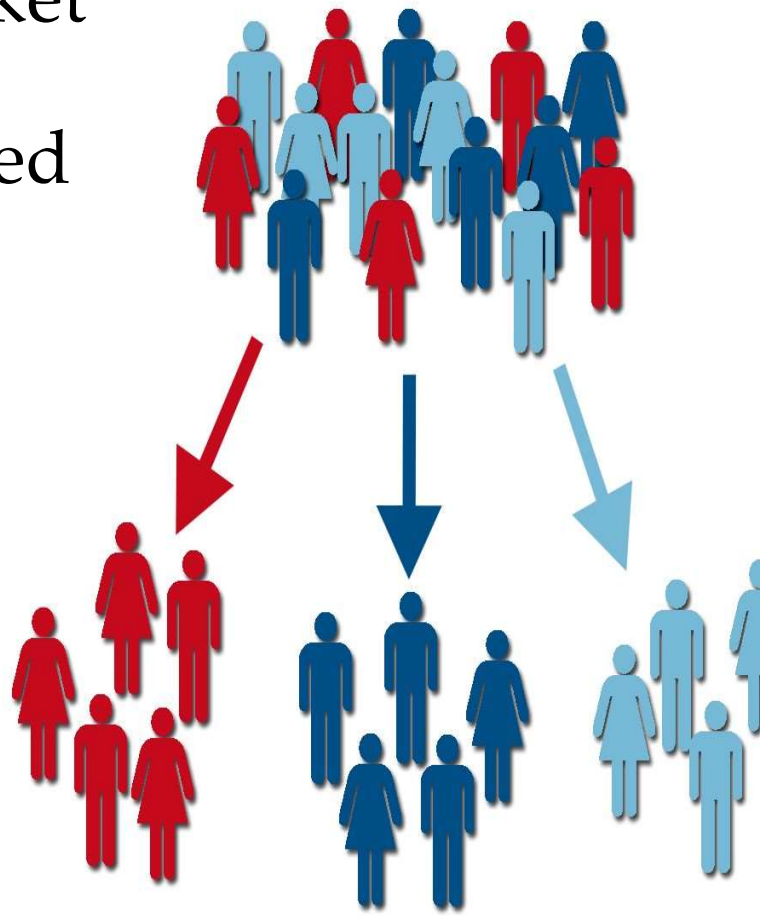

3,00
2,50
2,00
1,50
1,00
0,50
0,00
-0,50
-1,00
-1,50
-2,00
-2,50
-0,58
-1,79
-1,47
2.74
(₺18.24)
-0.65
(-£0.58)

Market Segmentation

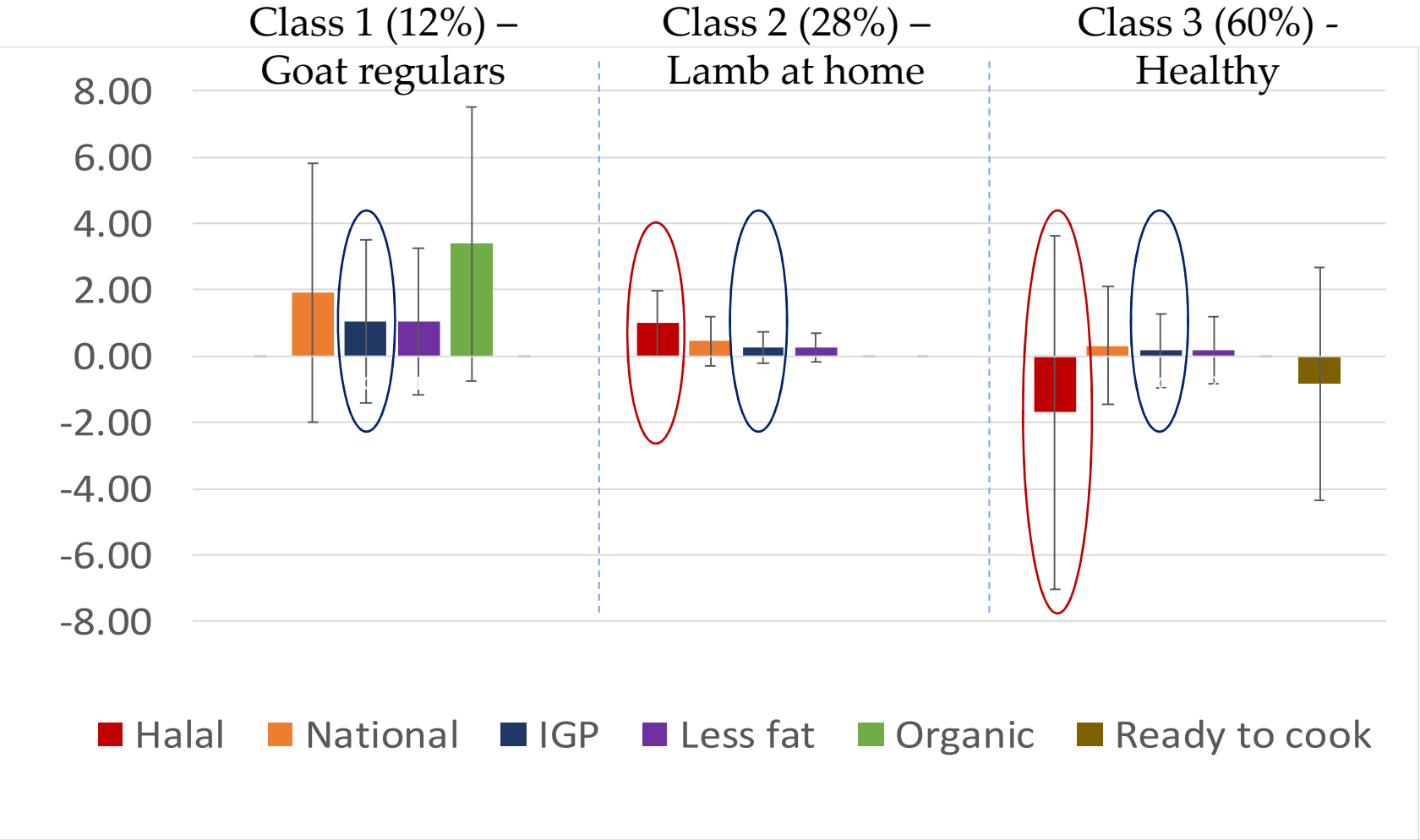
The process of dividing a market of potential customers into homogeneous sub-groups based on different characteristics.

1. Latent class choice experiment → most important attributes and willingness to pay (WTP)

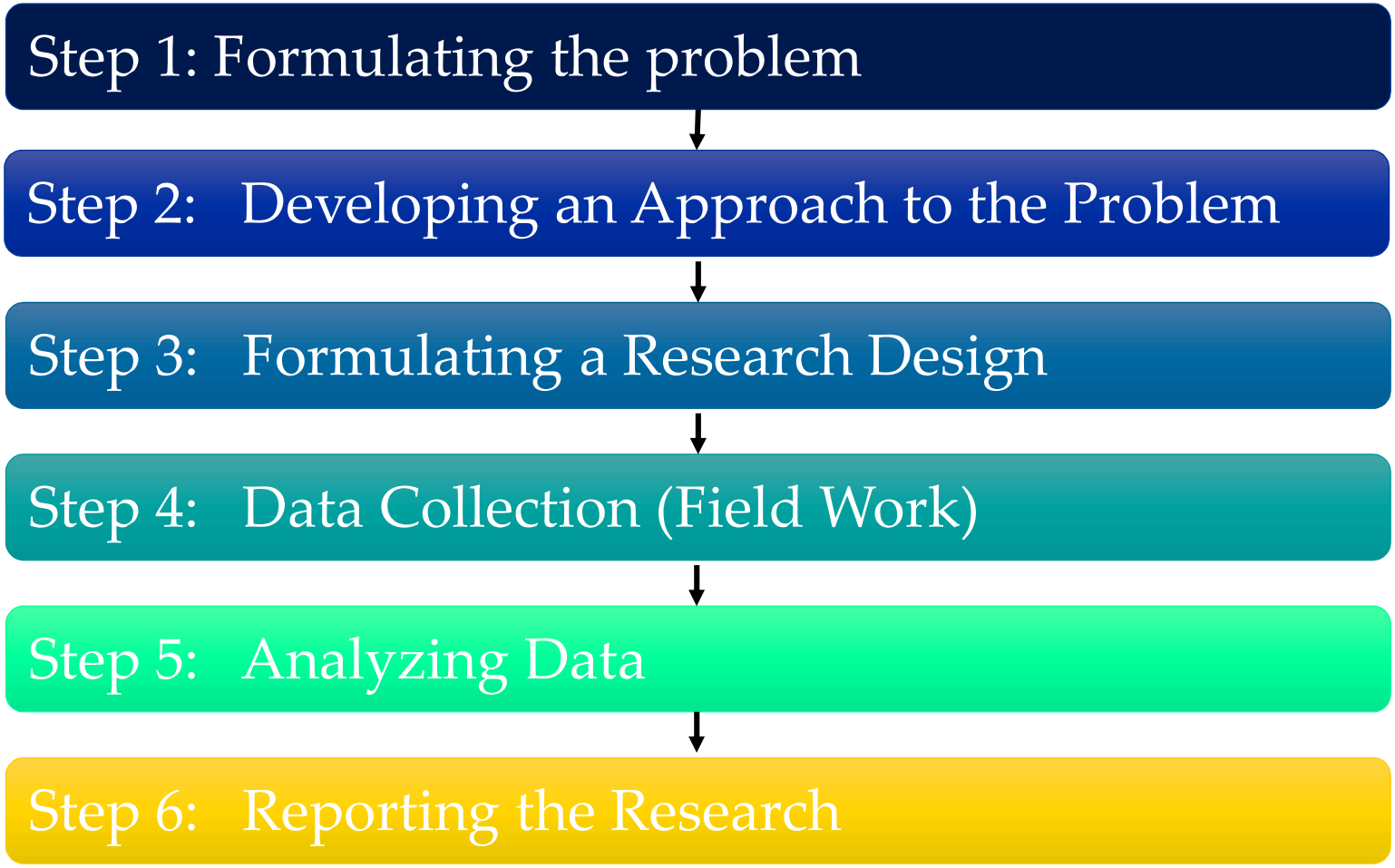
2. Regress the class probability by sociodemographic, behavioral, knowledge and psychographic variables



WTP – UK (Latent class)



Marketing research process



e.cuberod@agrecon.univpm.it