



## FOOD, AGRICULTURE AND FISHERIES, AND BIOTECHNOLOGY



# FRISBEE

Food Refrigeration Innovations for Safety,  
Consumers' Benefit, Environmental Impact and  
Energy Optimisation Along the Cold Chain in Europe.

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**D.2.3.2.1** Survey questionnaires and materials for studies of consumer perspectives and attitudes towards refrigerated foods, the cold chain and relevant refrigeration technologies (Informed consent forms, privacy, personal data handling)

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## INTRODUCTION

This deliverable is included in the Task 2.3 of the DoW concerning the study of consumer needs and expectations from the food cold chain lead by the CNRS in this task consumer needs and expectation studies will be carried out with respect to food safety and quality, energy efficiency, sustainability and social issues related to the European refrigerated foods sector.

The first step was to obtain national legal and ethical agreements for the surveys. We have indicated clearly on how the project meets the national legal and ethical requirements of the country where the research is performed. Before starting any survey, we have obtained all the national legal ethical requirements the necessary to obtain data fairly and lawfully processed. All the legal requirements have been provided to the Commission before starting the surveys. CNRS has submitted the required authorisations for all countries involved in the study in the deliverable D.2.3.1.

The second step consisted to prepare the questionnaires and material for studies of consumer perspectives and attitudes towards refrigerated foods, cold chain and relevant technologies.

The sociological questionnaire is now available.

It includes 209 questions for 235 different variables. The main topics are:

- Sociological identification of those who filled the questionnaire (sex, age, etc.),
- Food management in the different households,
- Go shopping
  - Food supply frequencies,
  - Sources of supply,
  - Distance from the sources of supply,
  - Reasons for the sources of supply choices,
  - Choosing fresh / cold products,
  - Frozen food,
  - Handling fresh / cold / frozen products,
  - Transporting food
- Safety and expiration date
  - The best before date question,
  - Food stocking,

- Knowledge about temperature of food conservation,
- Food freshness indicators
- Refrigerators and deep-freezers
  - Refrigerators and deep-freezers management,
  - Knowledge about this equipment,
  - Sensitisation to energy consumption

## **METHODOLOGY**

The questionnaire has been tested around 23 times before the final version, meaning that 22 preliminary versions have been elaborated before the last one. Different methods have been used, some of them including multimedia supports, such as images or photography, which have been finally rejected. For comparison reasons our will was to manage a single questionnaire available for all the countries involved in the study (France, UK, Germany and Spain).

The last version of the questionnaire has been translated in French, Spanish, English and English. The questionnaire has been adapted to each country, but only for some specific variables (i.e. name of the degrees or diploma delivered in the related countries, income scales, money used in the case of the United Kingdom). Consequently, each questionnaire in each country included the same number of variable, with the same number of possible answers). That was an important condition in order to prepare and manage the final database of the study (each national database will be aggregated in a single and final database). Consequently, each national questionnaire is a simple copy of the initial "right" questionnaire. Even the introductory message was mapped from the "source questionnaire" (but of course the name and email address of each national partner for Spain, Germany and UK has been modified).

Paper versions of the questionnaire were available. As we have no budget in order to distribute the questionnaire in each country, we defined a methodology in order to avoid this heavy constraint. The questionnaires had to be filled by each partner having contacted by phone persons matching with our sampling requirements. For convenience reasons, we re-created the final version of the questionnaire on the Google docs platform using the "form" facilities, at an address unknown from the consumers (we wanted to prevent a pollution of the database due to "enthusiastic" consumers that would have be a problem for our sample). Consequently, an .html "mirror image" of the source questionnaire has been created in each country. We had a problem. Uploading images in the numeric form was impossible. So we decided to exclude that kind of materials, except in one case: a refrigerator (see after). This image will be sent to the volunteers who have an Internet connection or will be described by our partners during the phone interactions, if possible. No problem with the paper version, of course.

The consumers who wanted to fill the questionnaires by themselves could do it using the paper version. In some cases the questionnaire has been filled during face-to-face interactions. Another Google docs address has been created and was dedicated to those who wanted to fill the questionnaire by themselves using Internet (we picked in this specific database the profile interesting for us).

All the described tasks have been performed in each involved country.

Distribution of the questionnaire is about to begin.

## USING DATA

The database that will result from this experiment will be a huge one, and exploiting all the possible available data will take a very long time. Our aim is not to extract all the information from the database. Our will is to offer an "open" tool that can be upgraded. That's the reason of the SPSS data analysis software, which work with .sav or .xls files.

Nevertheless we shall provide an analysis report for each country involved in the study. Each analysis will be the result of the database treatment.

We want to know if behavioural variations regarding fresh/frozen food consumption and handling can be observed in the four countries involved in the study, considering sociological variables, such as age, sex, nationality and so on...

## International behaviours

Using the same questionnaire in all the countries will enable us to compare national variations considering practices such as shopping, stocking or preserving food. From a macro sociological point of view it will be interesting to know if in UK, Spain, France and Germany the consumers do the same things or not. Two main assumptions can be examined here.

- The first assumption is that "cultural" practices can be noticed (maybe linked to the different geographical and climatic conditions characterising each country). In case of positive answer, it will be interesting to know how ordinary domestic devices, such as fridges, are "culturally" used by people.
- The second assumption is that these practices do not vary considerably from a country to another. In such a case, we will have to consider that domestic technologies, and heavy economic or industrial infrastructures (including the cold chain) exert a considerable influence on the individual behaviours, so that most of the sociological differences are erased. If this assumption is verified we will try to find by crossing the quantitative and the qualitative studies how these evolutions have been integrated in the consumer's current practices along those 4 last decades.

In any case, it will be interesting to know if the behaviours observed in the sociological studies can be explained by cultural factors, by the recent (30 or 40 last years) evolutions of the techno-industrial environment of food, or by both of them.

## National characterisation

Another aim of the study is to characterise each country involved in Frisbee from a sociological point of view considering their practices related to fresh and frozen food handling and consumption. Each country have been divided in four zones in order to know if some variations can be observed at this level. We especially expect to observe some variations considering a set of classical sociological variables, such age of the consumers, household composition, influence of the children if any.

We know, by other studies performed in the past especially in the domain of health sociology, that age and alimentation are closely linked, or that the birth of the first child is correlated to a period of huge capitalisation of knowledge about health in general, including food behaviours or food habits. It will be interesting to draw a portrait of UK, Germany, Spain and France from this point of view. And it will be even more interesting to compare each countries considering the main topics included in the study:

- Shopping,
- Safety practices,

- Technological devices (fridges, deep-freezers, etc.).

From this point of view, we will pay a special attention to some specific questions:

- Richness and poverty can be especially interesting for the Frisbee partners. How poor people manage the question of alimentation in their household? Do they have specific practices that can be considered as "risky" with regards to the safety of their food? Are the poor people more aware of the energy consumption question than the riches? These questions will be closely examined.
- During these last years, the question of organic food and the development of the short food chains have been underlined by the mass media. Do the consumers transform their potential interest for these questions in acts? Who purchase organic food? Is it a priority for ordinary consumers?
- The question of food waste seems to be a point of special interest in UK, where we observed a number of different campaigns. Is it as interesting in the other countries? The recent decision to partially suppress the expiration date on some alimentary products seems to be closely linked to these questions. How the expiration date is perceived in France, Germany or Spain? Is it a confidence criterion or is it perceived as an indirect waste factor?
- The perception of the domestic equipment (in our case fridges and deep-freezers) will be closely examined. The Frisbee project raised the question of the consumer's interest for the question of energy, or for the environmental question. Are ordinary people really interested in these questions? How do they consider their fridges? Do they pay a real attention to them? Do they establish a link between their food and their domestic devices? From another point of view, some countries in the Western Europe acceded only recently to the consumer society (Romania for the qualitative study or Spain for the quantitative, since the end of the Franco's regime). How these countries perceive these questions by comparison with the others?
- How do ordinary people choose their food? Do they really choose it, or do they select the convenient products that they can find close to their home? Are they ready to change their current way of buying food and preserving it?

#### International comparison

The study will enable us to study these questions from a national point of view. But the standardisation of the survey will make possible international comparisons, especially considering the previous questions. It will then be possible to underline what is specific to each country and, if possible, show who is sensitised to the food and energy questions raised by the Frisbee project.

## THE QUESTIONNAIRE

# FRISBEE Project



The European FRISBEE (Food Refrigeration Innovations for Safety, consumer Benefit, Environmental impact and Energy optimization in Europe) program is financed by the 7th research Framework Program of the European Union (EU) that covers the period 2007-2013.

You can visit our website at: <http://www.frisbee-project.eu/>. The project has a number of objectives. Two such objects are to better understand the consumers' attitudes and behaviors towards the fresh, cold, and frozen products that are part of your diet, and also to examine the uses of existing technologies in food conservation. These issues are rarely explored in social sciences. For this reason, we invite you to fill out this questionnaire; your responses will be very useful to us. They will be strictly anonymous and confidential. If you have any questions, please email us at: [zelem@univ-tlse2.fr](mailto:zelem@univ-tlse2.fr), or [barthejf@aol.com](mailto:barthejf@aol.com).

Thank you in advance for your cooperation. You can send the completed questionnaire to the following address: [barthejf@aol.com](mailto:barthejf@aol.com)

\*The survey is strictly anonymous. It will not serve a commercial or prejudicial purpose.

2) Studied area:  Northern Ireland  Scotland  Wales  England

3) Gender:  Female  Male

4) Age:

5) Structure of household:  Single  Couple  Married  Separated

Divorced  Widowed  Other, 6) If other specify:

7) What is (or used to be) your main job?

8) Which of these best describes your current working status?  Retired   
 Unemployed  Part-time job  Full-time job  Student  Other, specify (9):  
 NA (Not Applicable)

10) Your highest academic degree is :

- No diploma
- General Certificate of Secondary Education (GCSE), Standard Grades (in Scotland only)
- National Vocational Qualification
- General Certificate of Education - Advanced Level
- Advanced Level + 2 years
- Bachelor degree (Advanced Level + 3)
- Master degree (Advanced Level + 4)
- Advanced Level + 5 years
- PhD or greater than Advanced Level + 5

11) If you are living with your spouse/partner, what is his/her profession?

12) Which of these best describes her/his current working status?  Retired   
 Unemployed  Part-time job  Full-time job  Student  Other, specify  
 (13):  Not Applicable (NA)

14) Which of these best describes the composition of your household

- Single without children
- Single with children
- Couple without children
- Couple with children
- One-parent family (only one parent)
- Couple with extended family (with other family members)
- Single with extended family (with other family members)
- House-sharing or other forms of collective living

15) Do you have any dependent children?  Yes  No

16) How many children are living at home permanently?

17) How old is your first child?

18) How old is your second child?

19) How old is your third child?

20) How old is your fourth child?

21) How old is your fifth child?

22) Which of these best describes the area where you grew up?

- Rural area  Peri-urban area  Urban area

23) Which of these best describes your present area of residence?

- Rural area  Peri-urban area  Urban area

24) If your primary residence is an apartment, do you... ?  Rent  House-share  Own   
Live in collective accommodations (retirement home, hostel,...)  NA

25) If your primary residence is a house, do you... ?  Rent  House-share  Own  Live  
in collective accommodations (retirement home, hostel,...)  NA

26) Which bracket best describes your revenues (Total of the household)?

- |  |  |
|--|--|
| <input type="checkbox"/> Less than £255      | <input type="checkbox"/> from £2546 to £3185 |
| <input type="checkbox"/> from £256 to £635   | <input type="checkbox"/> from £3186 to £3820 |
| <input type="checkbox"/> from £636 to £955   | <input type="checkbox"/> from 3821 to £4455  |
| <input type="checkbox"/> from £956 to £1275  | <input type="checkbox"/> from £4456 to £5095 |
| <input type="checkbox"/> from £1276 to £1910 | <input type="checkbox"/> more than £5096     |
| <input type="checkbox"/> from £1911 to £2545 | <input type="checkbox"/> NR                  |

## Household food management

27) At home, who decides what food to buy?  You  Your Partner   
You and your Partner  Take turns  Other  NA

28) Do the children take part in deciding what food to purchase?  Yes  No  NA

29) At home, who generally does the shopping?  You  Your Partner  You and your Partner  Take turns  Other  NA

30) Do the children participate in the shopping?  Yes  No  NA

31) At home, who generally puts the food away in the fridge?  You  Your Partner  You and your Partner  Take turns  Other  NA

32) Do the Children help to put the food away in the fridge?  Yes  No  NA

33) At home, how would you describe the importance of food?  Very important  Important  Not very important  Not important at all

34) Decisions to purchase food are...?  Given a lot of thought  Given some thought, but sometimes spontaneous  Somewhat spontaneous  Exclusively spontaneous

35) How would you describe your weekly menus?  About the same every week  About the same every week but with occasional variations  Very diverse from week to week

36) In the following list, which criterion is most important for you when choosing your meals? First criterion

- You give priority to seasonal products
- You give priority to the freshness of the products
- You give priority to the cost of the products
- You give priority to the regional origin of the products
- You give priority to your desires
- You give priority to the organic nature of the products
- NA

37) In the following list, which criterion is second most important when choosing your meals? Second criterion

- You give priority to seasonal products
- You give priority to the freshness of the products
- You give priority to the cost of the products
- You give priority to the regional origin of the products
- You give priority to your desires
- You give priority to the organic nature of the products
- NA

38) In the following list, which criterion is third most important when choosing your meals? Third criterion

- You give priority to seasonal products
- You give priority to the freshness of the products
- You give priority to the cost of the products
- You give priority to the regional origin of the products
- You give priority to your desires
- You give priority to the organic nature of the products
- NA

39) Do you tend to cook and eat staple foods (fruits, vegetables, meat,...) rather than ready-made/pre-packaged meals (salads, blanquettes, paella, canned food, tins, etc...)?  Yes  No  NA



- 40) Do you buy fresh fruits and prepare them yourself? Fruits  Yes  No  NA
- 41) Do you buy fresh vegetables and prepare them yourself? Vegetables  Yes  
 No  NA
- 42) Do you buy fresh meat and prepare it yourself? Meats  Yes  No  NA
- 43) Do you buy fresh fish and prepare it yourself? Fish  Yes  No  NA
- 44) Do you buy fresh eggs and prepare them yourself? Eggs  Yes  No  NA
- 45) Do food prices influence your decisions regarding the purchase of fresh produce?  Yes  
 No  NA
- 46) Is the brand of the food that you buy a criterion of trust?  Yes  No  NA
- 47) Does limited shopping time affect your purchase decisions regarding fresh produce?  Yes  
 No  NA

## Logistics

- 48) How frequently do you do the shopping? The shopping (including all foodstuffs)  Every day  
 A few times per week  Once a week  Once every two weeks  
 Once a month  Less than once a month  NA

### 4-) How frequently do you buy :

- 49) eggs?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month  Less  
than once a month  NA
- 50) dairy products?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month   
Less than once a month  NA
- 51) fruits and vegetables?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month  Less than  
once a month  NA
- 52) meat?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month  Less  
than once a month  NA
- 53) fish?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month  Less  
than once a month  NA
- 54) frozen food?  Every day  A few times per week  Once a week   
Once every two weeks  Once a month  Less than once  
a month  NA

- 55) How far is your home from your main food supply places for fresh and frozen food? Only one answer per line



	Less than 1,2 miles	[1,2 – 3 miles[	[3 – 6 miles[	[6 – 12 miles[	More than 12miles
fish	<input type="checkbox"/>				
meat	<input type="checkbox"/>				
Dairy products	<input type="checkbox"/>				
Frozen food	<input type="checkbox"/>				
fruits and vegetables	<input type="checkbox"/>				
Eggs	<input type="checkbox"/>				

**5-) What are your main supply places ..... ? Only one possible answer**

- |   |  |  |  |  |   |
|---|--|--|--|--|---|
| <p><b>56) for fish?</b><br/>Only one possible answer</p>                  | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop<br/><input type="checkbox"/> Grocery shop<br/>garden / bought directly from the farm<br/><input type="checkbox"/> Discount stores (Cosco, liddl...)<br/><input type="checkbox"/> Other : (drive, home delivery)</p> | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket<br/><input type="checkbox"/> Short food chain / shared</p> | <p><b>57)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules<br/><input type="checkbox"/> Habit<br/><input type="checkbox"/> Other</p> | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality<br/><input type="checkbox"/> Price<br/><input type="checkbox"/> NA</p> |
| <p><b>58) for meat?</b><br/>Only one possible answer</p>                  | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop<br/><input type="checkbox"/> Grocery shop<br/>garden / bought directly from the farm<br/><input type="checkbox"/> Discount stores (Cosco, liddl...)<br/><input type="checkbox"/> Other : (drive, home delivery)</p> | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket<br/><input type="checkbox"/> Short food chain / shared</p> | <p><b>59)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules<br/><input type="checkbox"/> Habit<br/><input type="checkbox"/> Other</p> | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality<br/><input type="checkbox"/> Price<br/><input type="checkbox"/> NA</p> |
| <p><b>60) for dairy products?</b><br/>Only one possible answer</p>        | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop<br/><input type="checkbox"/> Grocery shop<br/>garden / bought directly from the farm<br/><input type="checkbox"/> Discount stores (Cosco, liddl...)<br/><input type="checkbox"/> Other : (drive, home delivery)</p> | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket<br/><input type="checkbox"/> Short food chain / shared</p> | <p><b>61)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules<br/><input type="checkbox"/> Habit<br/><input type="checkbox"/> Other</p> | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality<br/><input type="checkbox"/> Price<br/><input type="checkbox"/> NA</p> |
| <p><b>62) for frozen foods?</b><br/>Only one possible answer</p>          | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop<br/><input type="checkbox"/> Grocery shop<br/>garden / bought directly from the farm<br/><input type="checkbox"/> Discount stores (Cosco, liddl...)<br/><input type="checkbox"/> Other : (drive, home delivery)</p> | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket<br/><input type="checkbox"/> Short food chain / shared</p> | <p><b>63)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules<br/><input type="checkbox"/> Habit<br/><input type="checkbox"/> Other</p> | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality<br/><input type="checkbox"/> Price<br/><input type="checkbox"/> NA</p> |
| <p><b>64) for fruits and vegetables?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop<br/><input type="checkbox"/> Grocery shop<br/>garden / bought directly from the farm<br/><input type="checkbox"/> Discount stores (Cosco, liddl...)<br/><input type="checkbox"/> Other : (drive, home delivery)</p> | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket<br/><input type="checkbox"/> Short food chain / shared</p> | <p><b>65)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules<br/><input type="checkbox"/> Habit<br/><input type="checkbox"/> Other</p> | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality<br/><input type="checkbox"/> Price<br/><input type="checkbox"/> NA</p> |
| <p><b>66) for eggs?</b><br/>Only one possible answer</p>                  | <p><input type="checkbox"/> Market place<br/><input type="checkbox"/> Specialized shop</p>   | <p><input type="checkbox"/> Super- or Hypermarket<br/><input type="checkbox"/> Minimarket</p>  | <p><b>67)Why?</b><br/>Only one possible answer</p> | <p><input type="checkbox"/> Proximity<br/><input type="checkbox"/> Schedules</p>   | <p><input type="checkbox"/> Trust<br/><input type="checkbox"/> Quality</p>  |



possible answer

- Grocery shop       Short food chain / shared garden / bought directly from the farm
- Discount stores (Cosco, liddl...)
- Other : (drive, home delivery)       NA

possible answer

- Habit       Price
- Other       NA

**68) While you are shopping, when do you prefer to take the fresh food?** Only one possible answer

- Throughout the shopping       At the beginning of the shopping       At the end of the shopping
- Other       NA

**6-) Do you sometimes buy food just to take advantage of an interesting sale?**

- 69) fruits**       Yes    No       NA
- 70) vegetables**    Yes    No       NA
- 71) meat**       Yes    No       NA
- 72) fish**       Yes    No       NA
- 73) eggs**       Yes    No       NA
- 74) cheese**       Yes    No       NA
- 75) yogurts**       Yes    No       NA
- 76) desserts**       Yes    No       NA

**7-) Do you sometimes buy large quantities of ..... (bulk buy)?**

- 77) fruits**       Yes    No       NA
- 78) vegetables**    Yes    No       NA
- 79) meat**       Yes    No       NA
- 80) fish**       Yes    No       NA
- 81) eggs**       Yes    No       NA
- 82) Cheese**       Yes    No       NA
- 83) yogurts**       Yes    No       NA
- 84) desserts**       Yes    No       NA

**85) Do you sometimes buy freshly catered products (couscous, paella,...)?**

- Yes       No

**86) If Yes, do you systematically consume them within the two following days?**

- Yes       No

**87) Do you sometimes buy ready-made/pre-packaged salads?**

- Yes       No

**88) If yes, do you systematically consume them within the two following days?**

- Yes       No

**89) If you do not consume them within the two following days, how do you conserve them?**    Fridge    Other place of conservation    NA

**90) Do you buy frozen food?**    Yes       No      If no, go directly to question 97

**9-) In the following list, which frozen product do you buy the most?**



91) **first** most important:  Fish  Meat  Ready-cooked dishes   
Vegetables  Ice-cream  Other  NA

92) **second** most important:  Fish  Meat  Ready-cooked dishes  Vegetables  
 Ice-cream  Other  NA

93) **third** most important:  Fish  Meat  Ready-cooked dishes   
Vegetables  Ice-cream  Other  NA

94) **fourth** most important:  Fish  Meat  Ready-cooked dishes   
Vegetables  Ice-cream  Other  NA

95) **fifth** most important:  Fish  Meat  Ready-cooked dishes   
Vegetables  Ice-cream  Other  NA

96) **While you are shopping, when do you take the frozen products?**

Throughout the shopping  At the beginning of the shopping  At  
the end of the shopping  Other  NA

97) **When the weather is very hot, do you take particular precautions to transport the food?**

Huge precautions  A lot of precautions  Some precautions  No precautions  
 NA

98) **In winter, do you take particular precautions to transport the food?**

Huge precautions  A lot of precautions  Some precautions  No precautions  
 NA

99) **Who mostly transports your frozen food from the shop to your home?**

Yourself  
 A family member, a friend or a neighbor  A home support  Home delivery company  
 A shop that delivers directly to the home  Other

100) **What is your primary means of transportation when you do the shopping?**

Car (or  
van, moped)  Collective Transport (tube, bus)  Bike...  
 By foot  Other

101) **Do you separate the different produce (fresh, frozen...) in your shopping bag?**

No  NA  Yes

102) **Do you sometimes stop somewhere on your way home?**

No  NA  Yes

103) **How much time (maximum) does it take you to go back home with your fresh and frozen food after shopping? (in minutes)**

less than 10 minutes  between 30 and 40 minutes  
 between 10 and 20 minutes  between 40 and 50 minutes  
 between 20 and 30 minutes  more than an hour



**10-) What do you use to carry**

- 104) the fruits and vegetables?**  Plastic bags or re-usable bags  Wicker basket   
 Trolley or backpack  Cooler  Insulated lunch bag  NA
- 105) the meats and fish?**  Plastic bags or re-usable bags  Wicker basket   
 Trolley or backpack  Cooler  Insulated lunch bag  NA
- 106) the dairy products?**  Plastic bags or re-usable bags  Wicker basket   
 Trolley or backpack  Cooler  Insulated lunch bag  NA
- 107) the ready-cooked dishes?**  Plastic bags or re-usable bags  Wicker basket   
 Trolley or backpack  Cooler  Insulated lunch bag  NA
- 108) the frozen food?**  Plastic bags or re-usable bags  Wicker basket   
 Trolley or backpack  Cooler  Insulated lunch bag  NA

**109) How would you describe your Insulated lunch bag?**  Intact (undamaged)

- Almost intact  A little damaged  Torn  NA

## Safety and expiration date

The expiration date is placed on the packaging to signal the date after which the products should no longer be consumed.

**110) Which best describes your attitude about the expiration date: It is...?**  Very

- important  Important  Not very important  Not important at all

**11-) Do you sometimes fail to consult the expiration date of :**

- 111) the ready-made dishes?**  Yes  No  NA
- 112) the meat and fish?**  Yes  No  NA
- 113) dairy products?**  Yes  No  NA
- 114) the eggs?**  Yes  No  NA
- 115) frozen food?**  Yes  No  NA

**11-) Do you sometimes buy food with the idea that one can consume them a little after the expiration date?**

- 116) the ready-made dishes?**  Yes  No  NA
- 117) meat ?**  Yes  No  NA
- 118) fish ?**  Yes  No  NA
- 119) dairy products?**  Yes  No  NA
- 120) the eggs?**  Yes  No  NA
- 121) frozen food?**  Yes  No  NA

**122) Do you sometimes read the conservation recommendations?**

- Yes  No  NA

**123) Do you follow these recommendations?**

- Yes  No  NA

**124) Have you or anyone close to you, ever become sick after having eaten food past the**



**expiration date?**

Yes       No       I don't know

**125) If yes, have you ever faced a striking case?**

Yes       No       NA

**12-) In summertime where do you put...**

**126) the fruits?** Only  Fridge     Cupboard, larder       Fruit basket      
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**127) the vegetables ?**  Fridge     Cupboard, larder       Fruit basket      
Only one answer      Cellar     Windowsill, outdoors, balcony    Other

**128) the meat?** Only  Fridge     Cupboard, larder        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**129) the fish?** Only  Fridge     Cupboard, larder        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**130) the eggs?** Only  Fridge     Cupboard, larder       basket        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**131) the cheese?** Only  Fridge     Cupboard, larder       Cheese cover  
one answer               Cellar     Windowsill, outdoors, balcony    Other

**132) the yogurts?**  Fridge     Cupboard, larder        
Only one answer      Cellar     Windowsill, outdoors, balcony    Other

**13-) In wintertime, where do you put the fruits?**

**133) the fruits?** Only  Fridge     Cupboard, larder       Fruit basket      
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**134) the vegetables ?**  Fridge     Cupboard, larder       Fruit basket      
Only one answer      Cellar     Windowsill, outdoors, balcony    Other

**135) the meat?** Only  Fridge     Cupboard, larder        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**136) the fish?** Only  Fridge     Cupboard, larder        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

**137) the eggs?** Only  Fridge     Cupboard, larder       basket        
one possible answer    Cellar     Windowsill, outdoors, balcony    Other

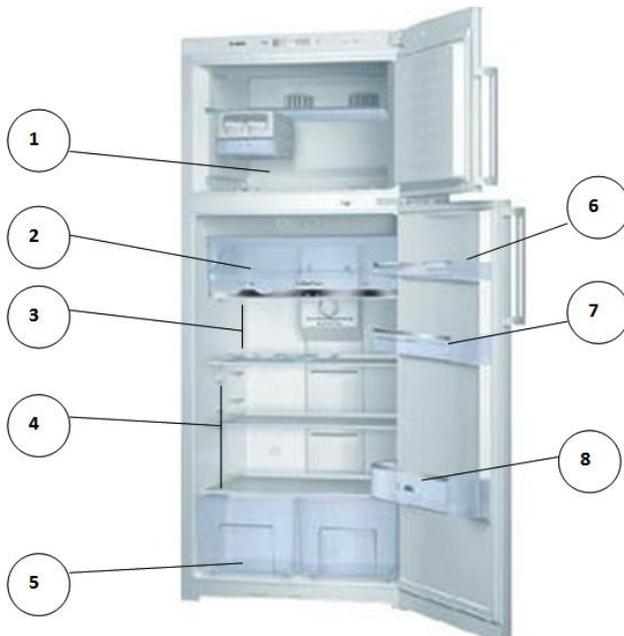
**138) the cheese?** Only  Fridge     Cupboard, larder       Cheese cover  
one answer               Cellar     Windowsill, outdoors, balcony    Other

**139) the yogurts?**  Fridge     Cupboard, larder        
Only one answer      Cellar     Windowsill, outdoors, balcony    Other

**140) What type of fridge do you have?**

- Single door and big capacity  
  Single door and medium capacity  
  Mini fridge  
  Combined refrigerator-freezer with double door  
  American models (with ice and fresh water production)  
  Other  
  NA

**14-) Where would you place the food in this combined refrigerator-freezer? (please put a number)**



- 141) the vegetables
- 142) the fruits
- 143) the meat and fish
- 144) the frozen foods
- 145) the cheese
- 146) the eggs
- 147) the ready-cooked dishes
- 148) the milk

- 149) Do you know which is the coolest area of your fridge (excepting the freezer)?**  
 Yes  
 No  
 Never asked oneself the question  
 NA (The fridge may have an homogenous temperature)

- 150) The coolest area of your fridge is...?**  
 At the top of the fridge  
 At the bottom of the fridge  
 At the middle of the fridge  
 I don't know  
 NA  
 At the

**15-) In your opinion, what is the ideal temperature to conserve**

- 151) fruits?
- 152) vegetables?
- 153) meat?
- 154) eggs?
- 155) cheese?
- 156) yogurt?

**15-) How long do you think you can conserve**

- 157) your fish at its ideal conservation temperature?
- 158) your meats at their ideal conservation temperature?
- 159) your frozen foods at their ideal conservation temperature?

**60) Do you know the present temperature setting of your fridge?**

- Yes  
 No  
 I don't know

**161) In general, how do you assess the freshness of a product?**



	Very Important	Somewhat Important	Not very Important
Texture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expiration date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Packaging condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consistency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

162) How would you describe your fridge?  Very full  
 Full  Half full / empty  Always empty

163) How would you describe your freezer?  Very full  
 Full  Half full / empty  Always empty

16-) If you were to look into your fridge right now, would you find food that has been there for...

- 164) longer than two weeks?  Yes  No  NA  
 165) longer than one month?  Yes  No  NA  
 166) more than three months?  Yes  No  NA  
 167) more than six months?  Yes  No  NA

16-) If you were to look into your freezer right now, would you find food that has been there for

- 168) more than three months?  Yes  No  NA  
 169) more than six months?  Yes  No  NA  
 170) more than one year?  Yes  No  NA  
 171) more than two years?  Yes  No  NA

172) Regarding food you have had to throw away because it spoiled after a long time, which type of food was it? And how often does this happen to you?

	Frequently	Sometimes	Rarely	Never
Fruits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eggs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Yogurt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frozen food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**173) What kind of container do you generally use to conserve the food or the ready-cooked dishes in the fridge?**

	Yes	No	NA
Tupperware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cellophane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diverse covered container	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Divers uncovered container	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Original packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nothing at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**174) After having cooked a dish, do you ever conserve it in your fridge?** Fridge  Yes  
 No  I don't know  NA

**175) If yes, what is the longest you would keep it?**

**176) After having cooked a dish, do you ever conserve it in your freezer?** Freezer  Yes  
 No  I don't know  NA

**177) If yes, what is the longest you would keep it?**

**178) Do you sometimes put a product back into the freezer after it has already been defrosted?**   
 Yes often  That has happened to me  Never  I don't know  NA

## Refrigerator

**179) How many refrigerators do you have?**

**181) How old is your main refrigerator?** years

**182) Did you get it new or used?**  New  Used  I don't know  NA

**183) Is your refrigerator situated next to a heat source (radiator, hot plates, etc.)**  Yes  
 No  NA

**18-) Does it have :**

- 184) a ventilated cold feature?  Yes  No  I don't know  NA
- 185) an Inside air circulation feature?  Yes  No  I don't know  NA
- 186) an automatic Defrosting feature?  Yes  No  I don't know  NA
- 187) electronic temperature regulation?  Yes  No  I don't know  NA
- 188) an open door alarm?  Yes  No  I don't know  NA
- 189) any other special features?  Yes  No  I don't know  NA
- 190) no options  Yes  No  I don't know  NA

**191) How would you describe your refrigerator's working condition?**

- Very good working condition  Fair working condition
- Not very good working condition  Very bad working condition

**192) What is its energy-label efficiency classes? Refrigerator**

- A ++  A +  A  B  C  D-E  F-G  I don't know  NA

**193) Have you read the instruction manual of your refrigerator?**

- Yes  No  I don't know

**194) Do you know where you keep the instruction manual? Refrigerator**

- Yes  No  I don't know

**195) Which best describes your attitude about checking the temperature of a refrigerator? It is:**

- Very important  Fairly important  Not very important  Not important at all

**196) How often do you do it?**

- 197) How often do you defrost your refrigerator?**  Once a month  Once every three months
- Twice a year  Once a year  Never  NA (auto defrosting or no refrigerator)

- 198) How often do you clean your refrigerator?**  Once or twice per week  Once or twice per month
- Once or twice every three months  Once or twice a year  Less than one a year
- Never  Other

- 199) How do you clean it?**  Soapy water  Dishwashing liquid  Bleach  Scouring powder/pad, abrasive agent  Other  NA

## Freezer

**200) Is your refrigerator equipped with a freezer or a deep-freezer?**

- Yes, with a deepfreezer  Yes with a freezer  Neither  NA

**201) How many separate deep-freezers do you have (except those incorporated in the refrigerators)?**

**203) How old is your main deep-freezer?                      years**



204) Did you get it new or used?  New  Used  I don't know

205) How would you describe your deep-freezer's working condition?  Very good  
working condition  Fair working condition  
 Not very good working condition  Very bad working condition

206) What is its energy-label efficiency classes? Deep-Freezer

A ++  A +  A  B  C  D-E  F-G  I don't know  NA

207) Have you read the instruction manual of your deep-freezer?  Yes  No

208) Do you know where you keep the instruction manual? Deep-freezer

Yes  No  I don't know  NA

209) How often do you defrost your deep-freezer?  Once a month  Once every three months  
 Twice a year  Once a year  Never  NA (auto defrosting or no freezer)