

This data collection is intended to investigate consumer perspectives and knowledge about insects for human consumption.

It is developed within the scope of the EISuFood project taking place in 18 countries simultaneously (Coordinator: Raquel Guiné, Portugal).

Ethical principles are strictly followed, participation is voluntary and all information collected is strictly confidential. Only adult participants, who give consent, respond to the questionnaire.

Thank you in advance for your cooperation.

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I am 18 years old or over and I agree to participate in the survey.

1. Demographic Data

1. Age: _____ years

2. Sex:

Female ₁ Male ₂ Don't want to answer ₃

3. Education level:

Post-graduate education (master or doctorate) ₁

Completed a university degree ₂

No university degree ₃

If you do not have a university degree, how many school years you have: ______{3.a}

4. Living environment:

Rural ₁ Urban ₂ Suburban ₃

5. Household income in relation to the average in your country:

Much lower ₁ Lower ₂ Equal to the average ₃ Higher ₄ Much higher ₅

6. Professional activity / studies related to any of the following areas:

	Yes	No
1. Food/Nutrition		
2. Agriculture		
3. Environment		
4. Biology		
5. Health-related activities		

6. Tourism		
7. Others		

2. Characterization of participants' habits

7. How often do you eat in restaurants (please answer considering the pre-covid situation)?

Never ₁ Rarely (less than once per month) ₂

Sporadically (between once per week and once per month) ₃

Occasionally (about once per week) ₄ Moderately (2 to 3 times per week) ₅

Often (4 or more times per week) ₆

8. When you go to restaurants, what type of food you prefer (pre-covid)?

(please choose 1 or 2 or a maximum of 3 options)

	My top choices
1. Traditional food from my country	
2. Ethnic food (typical from foreign countries)	
3. Regional specialities	
4. Gourmet food	
5. Fast-food	
6. Suggestion of the day/Done dish	
7. Healthy food	
8. Vegan/Vegetarian	
9. Grilled food/Barbecue	

9. How often do you travel abroad (pre-covid)?

Never ₁ Rarely (about once per year) ₂

Occasionally (about 2 times per year) ₃ Often (3 or more times per year) ₄

10. When traveling abroad do you have a preference for the type of food you consume?

Typical food of the country I am visiting ₁

Food as similar as possible to my own country ₂

International food (types of food commonly spread around the world) ₃

No preference ₄

11. Do you consider Covi-19 changed your eating patterns?

	Not changed ₁	Little changed ₂	Much changed ₃
1. Frequency of eating out			
2. Frequency of travelling abroad			
3. Frequency of ordering prepared food in the catering sector			
4. Type of food consumed			
5. Food shopping practices			
6. Food safety concerns			

12. Have you ever eaten insects as culinary preparations, as snacks or other derived products?

Yes ₁ No ₂ Don't know/Don't remember ₃

13. If you have never eaten insects, would you consider eating them?

Definitely not ₁ Maybe ₂

Yes, but only derived foods that include insects (for example hamburger or biscuits) ₃

Yes, whole insects and derived foods ₄

13.a. In which circumstances you would consume? (you may choose more than one option)

Out of curiosity ₁

If there is scarcity of food ₂

To help preserve the planet ₃

Because of the gastronomic characteristics ₄

Because of the nutritional properties ₅

14. If you consume EI, how often do you eat insects as culinary preparations, as snacks or other derived products?

About one time per year ₁ About 2 to 3 times per year ₂

About one time per month ₃ About one time per week ₄ Two or more time per week ₅

15. What comes to your mind when you hear about edible insects? Please use up to 5 words or small expressions that you associate with edible insects.

- 1) _____
- 2) _____
- 3) _____
- 4) _____

5) _____

D1. Culture & Tradition

16. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Entomophagy is a dietary practice that consists in the consumption of insects by humans	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Insects are considered a traditional food in my country	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. There are thousands of species of insects that are consumed by humans in the world	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Consuming insects is characteristic of developing countries	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Insects are present in events related with religious rituals	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Insects are part of the gastronomic culture of most countries in the world	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. In some countries the tradition of eating insects is decreasing because of the "Westernization" of diets	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. Insect consumption is seasonal, so it varies according to the time of the year	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. There are obstacles to consumers' acceptance of edible insects in Western countries	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. Insects can be associated with traditional festivities and celebrations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

D2. Gastronomic innovation & Gourmet kitchen

17. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Insects are considered as exotic foods	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Insects are traded as treats/delicacies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. Insects are not suitable for human consumption	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Insects are associated with taboos and food neophobia (not wanting to eat unfamiliar foods)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Some gourmet restaurants use edible insects in their culinary preparations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Insects are present in culinary events and gastronomic shows	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. Insects are recommended by some recognized chefs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. Chefs contribute to the popularization of insects into gastronomy in Western countries	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. Culinary education favours overall liking for innovative insect based products	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

D3. Environment & Sustainability

18. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Insects are a more sustainable alternative when compared to other sources of animal protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. Insect production for human consumption emits much less greenhouse gases than beef production	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. Insects efficiently convert organic matter into protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. The production of insect protein uses considerably less feed than cow protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. Insects are a possibility to respond to the growing world demand for protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. The production of chicken protein requires much less water than insect protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
7. The ecological footprint (impact) of insects is smaller when compared to other animal proteins	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
8. The production of insect protein requires much more area than pig protein	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
9. Insects are collected as a means of pest control for some cultivated crops	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
10. Loss of biodiversity is lower with insect production compared to other animal food production	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
11. Energy input needed for production of insect protein is lower than for the production of other proteins from animal origin	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

D4. Economic & Social aspects

19. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Insect production can contribute to increase the income of families in low income areas	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. Insects provide protein foods at cheap prices	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. The market of edible insects is expected to decline in the future	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. Presently, the Asia-Pacific and Latin America areas account for more than half of the edible insects market	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. In some countries insect farming is becoming a key factor to fight against rural poverty	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. The income generated from insects can be affected by market fluctuations in price derived from availability	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

D5. Commercialization & Marketing

20. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Edible insects are difficult to find on sale on street markets	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. Edible insects are easy to find on sale in supermarkets	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. Edible insects are on sale only on specialized shops	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. The level of knowledge influences the willingness to purchase insect food	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. Price is among the motivations to consume insect foods	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. The consumption of insects and derived foods depends on availability	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
7. Personalities/influencers can lead people to consume insects	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
8. Insect consumption is independent of marketing campaigns	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

D6. Nutritional aspects

21. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. Insects have poor nutritional value	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. Insects are a good source of energy	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. Insects have high protein content	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. Insect proteins are of poorer quality compared to other animal species	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. Insects provide essential amino acids necessary for humans	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. Insects contain group B vitamins	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
7. Insects contain dietary fibre	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
8. Insects contain minerals of nutritional interest, such as calcium, iron, and magnesium	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
9. Insects contain fat, including unsaturated fatty acids	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
10. Insects contain anti-nutrients, such as oxalates and phytic acid	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

D7. Health effects

22. Please provide your opinion on the following information (Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Indifferent, 4 = Agree, 5 = Strongly agree).

	Strongly Disagree	Disagree	No opinion	Agree	Strongly Agree
1. There are appropriate regulations to guarantee food safety of edible insects	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. Insects are used by some people in traditional medicine	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. Eating insects poses a substantial risk to human health	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. Industrial processed insect products are hygienic and safe	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5. Insects and insect based foods are often infected by pathogens and parasites	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. Insects collected from the wild may be contaminated with pesticide residues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7. In certain countries insects are approved officially for therapeutic treatment	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8. Insects contain bioactive compounds beneficial to human health	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9. Insects are potential sources of allergens	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10. Aflatoxins, which are carcinogens, can be present in insects	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Thank you for your collaboration.