

International FoodTec Conference

Shaping the Future
of Sustainable
Food Ecosystems



1st Edition '25

Interreg



Cofinanciado por
la Unión Europea
Cofinanciado pela
União Europeia

España - Portugal



Net4food

RED DE INVESTIGACIÓN E INNOVACIÓN
PARA EL SECTOR ALIMENTARIO

BOOK OF ABSTRACTS

-  Challenges and Opportunities in the Food System of the Transborder Region
-  Innovation, Technology, and Food Security in a Changing Global Landscape
-  Nutrition and Consumer Trends: Enhancing the Value of Endogenous Resources
-  Quality, Food Safety, and Environmental Responsibility
-  Marketing, Digitalization, and the Future of the Food Sector
-  Strategic Developments in the Net4Food Project

27th to 29th of October 2025

Bragança 2025

TECHNICAL DATA

Title

International FoodTec Conference – *Shaping the Future of Sustainable Food Ecosystems*

Authors

Lillian Barros (CIMO/IPB, Portugal)

Alexandre Gonçalves (MORE, Portugal)

Sara Vieira (CIMO/IPB, Portugal)

Tiago Reis (CIMO/IPB, Portugal)

Natacha Pinto (MORE, Portugal)

Bárbara Matias (MORE, Portugal)

ISBN

978-972-745-362-7

Edition

Instituto Politécnico de Bragança

Campus de Santa Apolónia,

5300-253, Bragança, Portugal

URL

<https://iftc.morecolab.pt/>

INDEX

WELCOME TO THE IFTC 2025	1
IFTC 2025 COMMITTEE	3
GENERAL INFORMATION	7
CONFERENCE PARTICIPATION	10
SCIENTIFIC INFORMATION	11
SOCIAL EVENTS	14
AGENDA	17
SCIENTIFIC PROGRAM	20
ROUNDTABLE I	27
ROUNDTABLE II	37
REFLECTIVE LECTURE	54
PLENARY LECTURES	56
KEYNOTE LECTURES	69
ORAL PRESENTATIONS	97
POSTER PRESENTATIONS	138
SUPPORT	376

WELCOME TO THE

IFTC 2025



The banner features the conference title and dates on the left, a list of topics in the center, and a photo of hands holding carrots on the right. Logos of partner organizations are at the bottom.

International FoodTec Conference
Shaping the Future of Sustainable Food Ecosystems
Bragança 2025
27th to 29th of October 2025

- Challenges and Opportunities in the Food System of the Transborder Region
- Innovation, Technology, and Food Security in a Changing Global Landscape
- Nutrition and Consumer Trends: Enhancing the Value of Endogenous Resources
- Quality, Food Safety, and Environmental Responsibility
- Marketing, Digitalization, and the Future of the Food Sector
- Strategic Developments in the Net4Food Project

Logos: interreg, Net4food, IBERIAN FOODTEC LAB, Universidade de Vigo, PORTUGAL FOODS, INL, AQUA VALOR, and others.

The **I International FoodTec Conference – *Shaping the Future of Sustainable Food Ecosystems*** – will be held from the **27th to 29th of October 2025**. The event convenes together leading experts in advanced research, innovative food solutions, prominent stakeholders from the food industry, and policymakers focused on strategic planning and funding for the sector.

Organized under the scope of the European **Net4Food Project – *Research and Innovation Network for the Food Sector in the Cross-Border Region*** – and funded by **Interreg POCTEP**, the conference aims to enhance a network of excellence within the food sector of the **Galicia-Northern Portugal Euroregion**. Additionally, it will strengthen the scientific and technological capacities of the food industry by driving innovation, adding value to regional endogenous resources, and promoting sustainable, safe, and healthy food practices.

The conference is closely aligned with the establishment of the future **Iberian FoodTec Lab (IFL)**, an international reference center for technological innovation in the food sector. Attendees will engage in insightful discussions addressing challenges and opportunities within the industry, focusing on sustainability, innovation, and knowledge transfer. Key topics include **innovative food technologies, emerging nutritional trends, food quality and safety, consumer**

behavior, digital transformation, and strategic developments within the food sector. A highlight of the event will be the presentation of the advancements from the **Net4Food Project**.

The **I International FoodTec Conference** is structured around six core topics:

-  Challenges and Opportunities in the Food System of the Transborder Region
-  Innovation, Technology, and Food Security in a Changing Global Landscape
-  Nutrition and Consumer Trends: Enhancing the Value of Endogenous Resources
-  Quality, Food Safety, and Environmental Responsibility
-  Marketing, Digitalization, and the Future of the Food Sector
-  Strategic Developments in the Net4Food Project

The **Net4Food Project** brings together a distinguished consortium coordinated by the **Polytechnic Institute of Bragança**, including strategic partners such as the **University of Vigo**, the **International Iberian Nanotechnology Laboratory (INL)**, the **Galician Food Cluster (Clusaga)**, **PortugalFoods**, and the collaborative laboratories **MORE CoLAB** and **AquaValor**. Their expertise reinforces the development of pioneering initiatives, laying the foundation for an innovative hub in the **European Food Sector**. This collaborative effort is posed to advance sustainable practices and promote transformative changes within Food Ecosystems.

All the information contained in this Book of Abstracts is accurate at the time of its publication. The Conference Organizers reserve the right to make modifications.

IFTC 2025 COMMITTEE

Scientific committee



Lillian Barros
(CIMO/IPB, Portugal)



Isabel Ferreira
(IPB, Portugal)



Lorenzo Pastrana
(INL, Portugal)



David Fernández Calviño
(UVigo, Espanha)



Alexandre Gonçalves
(MORE, Portugal)



Maria José Alves
(AquaValor, Portugal)



Deolinda Silva
(PFoods, Portugal)

Organizing committee



Lillian Barros
(CIMO/IPB, Portugal)



Alexandre Gonçalves
(MORE, Portugal)



Sara Vieira
(CIMO/IPB, Portugal)



Tiago Reis
(CIMO/IPB, Portugal)



Maria José Alves
(AquaValor, Portugal)



Teresa Carvalho
(PFoods, Portugal)



Noelia Dosil (CLUSAGA,
Espanha)



Lorenzo Pastrana (INL,
Portugal)



Patricia Reboredo
(UVigo, Espanha)

Local organizing committee



Lillian Barros
(CIMO/IPB, Portugal)



Alexandre Gonçalves
(MORE, Portugal)



Sara Vieira
(CIMO/IPB, Portugal)



Tiago Reis
(CIMO/IPB, Portugal)



Luana Fernandes
(MORE, Portugal)



Ana Paula Pereira
(MORE, Portugal)



Joana Amaral
(IPB, Portugal)



Bárbara Matias
(MORE, Portugal)



Natacha Pinto
(MORE, Portugal)



Eliana Pereira
(CIMO/IPB, Portugal)



Cristina Caleja
(CIMO/IPB, Portugal)



Filipa Reis
(CIMO/IPB, Portugal)



Filipa Mandim
(CIMO/IPB, Portugal)



Ângela Fernandes
(CIMO/IPB, Portugal)

OP35 | TRY OR NOT TO TRY? A THEORETICAL PROPOSAL TO CHANGE EATING BEHAVIOR

Oliva M. D. Martins^{1*}, Natacha Jesus-Silva², José Paulo Costa³, Ana Sofia Coelho¹

¹Transdisciplinary Research Center on Education and Development, Instituto Politécnico de Bragança, Campus de Santa Apolónia 5300-253 Bragança, Portugal; ²UNIAG - Applied Management Research Unit, Instituto Politécnico de Bragança, Bragança, Portugal; ³Instituto Europeu de Estudos Superiores (IEES), Portugal. *oliva.martins@ipb.pt

Considering that animal protein production undermines environmental sustainability and that protein-based foods are essential for human survival, it is necessary to reflect on alternatives in view of global population growth, expected to exceed nine billion by 2050, together with the increase in life expectancy. These factors, combined with the environmental impacts of livestock, may result in an insufficient supply of animal protein, raising the question: how can we meet the growing demand for protein? This proposal aims to identify sustainable and accessible options to replace or supplement animal protein. Insect-based food emerges as a promising solution; however, cultural barriers such as neophobia constitute a major challenge. To understand these barriers, we applied the Social Ecological Model [1], structuring them into different dimensions (structural, community, organizational, interpersonal).

Additionally, we explored factors influencing eating behavior based on individual and social beliefs [2]. Given the complexity of changing food habits, a sequential qualitative and quantitative approach is proposed [3]. Finally, this research suggests experimental investigation on sensorial perception to identify the main agents and variables that influence eating behavior, leading to the development of an interaction model.

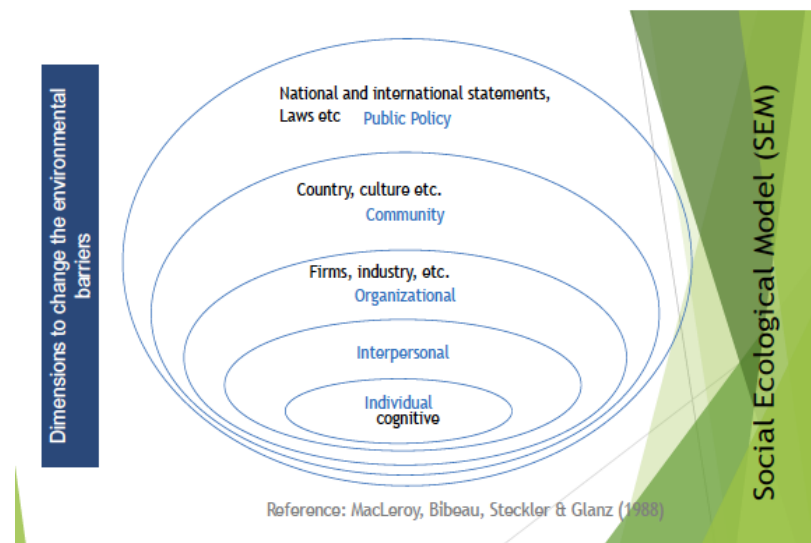


Figure 1 – Social Ecological Model.

References

- [1] K.R. McLeroy *et al.*, *Health Education Quarterly*, 15(4), 1988, 351–377.
- [2] M. Fishbein *et al.*, *Contemporary Sociology*, 6(2), 1977, 244.
- [3] A. Steckler *et al.*, *Health Education Quarterly*, 19, 1992, 1-8.

Acknowledgments

This work was supported by FCT – Foundation for Science and Technology under the Project UID/05777/2023. We would like to thank Transdisciplinary Research Center on Education and Development, based in Instituto Politécnico de Bragança, Campus de Santa Apolónia 5300-253 Bragança, Portugal, funded by national funds through FCT - Fundação para a Ciência e a Tecnologia.

POSTER PRESENTATIONS

Acknowledgments

This work was financially supported by the research project ValICET (PRIMA/0001/2020, <http://doi.org/10.54499/PRIMA/0001/2020>) - Valorise foods and Improve Competitiveness through Emerging Technologies applied to food by-products within the circular economy framework (section 2 PRIMA project) funded in Portugal by the Foundation for Science and Technology (FCT). This work received financial support from FCT/MCTES (UIDB/00211/2020, DOI 10.54499/UIDB/00211/2020) through national funds. A.R.S.M. would like to thank to Foundation for Science and Technology (FCT) for her fellowship (2023.04705.BDANA).

SUPPORT

Net4Food Project

The **I International FoodTec Conference – Shaping the Future of Sustainable Food Ecosystems** was supported by FEDER Cooperación Interreg VI-A España-Portugal (POCTEP) 2021-2027 (Net4Food, 0033_NET4FOOD_1_P).

For further information, please visit the Net4Food website:

<https://net4food.eu/pt-pt/>

Interreg



Cofinanciado por
la Unión Europea
Cofinanciado pela
União Europeia

España - Portugal



Instituto Politécnico de Bragança

The Organizing Committee would like to sincerely thank the **Serviços de Imagem** and the **Gabinete de Imagem e Apoio ao Estudante (GIAPE)** for their dedication and generous support, which greatly contributed to the success of the conference.



União das Freguesias de Sé, Santa Maria e Meixedo

The Organizing Committee would like to express its heartfelt gratitude to the **União de Freguesias de Sé, Santa Maria e Meixedo** for their generous contribution, kindly providing the “Comboio Turístico” to transport participants from the Hotel Exe São Lázaro to Quinta da Carvalhinha.



Companies

The Organizing Committee would also like to acknowledge the companies that contributed to the success of the congress:



International FoodTec Conference

Shaping the Future
of Sustainable
Food Ecosystems



1st Edition '25

Interreg



Cofinanciado por
la Unión Europea
Cofinanciado pela
União Europeia

España - Portugal



Net4food

RED DE INVESTIGACIÓN E INNOVACIÓN
PARA EL SECTOR ALIMENTARIO

Thank you for your participation!

27th to 29th of October 2025

Bragança 2025