

# SHIFT | 2025

*Blended Intensive Programme*

**(BIP)**



## SHIFT – Strategic Synergies in Agro-Food: A Holistic Journey Through Innovation, Sustainability, and Entrepreneurship

ONLINE – 7 March – 11 April 2025, Fridays 10:00-11:30 (CET Time Zone)

ON-SITE WEEK – Porto, Portugal – 5-9 May 2025





## SHIFT – Strategic Synergies in Agro-Food – Blended Intensive Programme (BIP)

SHIFT (*Strategic Synergies in Agro-Food: A Holistic Journey Through Innovation, Sustainability, and Entrepreneurship*) is an ERASMUS + Blended Intensive Programme (BIP) organized by:

 <p><b>CATÓLICA</b> FACULTY OF BIOTECHNOLOGY PORTO</p>	<p><b>Coordinator</b></p>	<p>Founded in 1984, the Escola Superior de Biotechnologia (ESB) is a part of the Porto Regional Center (CRP) of the Universidade Católica Portuguesa (Portuguese Catholic University, or UCP) and currently runs a full range of University activities. Of major importance are activities in Higher Education (Undergraduate, Master's and PhD degrees and Postgraduate diplomas), Research and Development (fundamental and applied, laboratory and non-laboratory, scientific and technological) and Extension activities with the primary, secondary and tertiary sectors (through services and continuing education). CBQF (Centre of Biotechnology and Fine Chemistry), the research center of Escola Superior de Biotechnologia (ESB/UCP), has held the prestigious status of an Associate Laboratory since 2004, distinguishing itself as the sole non-state-owned entity with this designation in Portugal. CBQF has solidified its global standing as a leading authority in Biotechnology, particularly in its focal scientific domains of food, environment, and health.</p> <p>Website: <a href="https://esb.ucp.pt/en/">https://esb.ucp.pt/en/</a></p>	
 <p>ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA</p> <p>DIPARTIMENTO DI SCIENZE E TECNOLOGIE AGRO-ALIMENTARI</p>	<p><b>Partner</b></p>	<p>The University of Bologna is the oldest one in Europe and the largest university in Emilia-Romagna region. It is structured into 31 Departments, 5 operational sites and 1 permanent location in Buenos Aires, and welcomes 90,291 students (of which 7,062 international). The Department of Agricultural and Food Sciences (DISTAL) is the largest in the University of Bologna with around 500 employees. It is organized into divisions that coordinate the main research activities, within which multidisciplinary groups operate across all typical sectors of the agricultural and food sciences. The students selected within SHIFT of the University of Bologna comes from the Master Degree Course of Food Science and Technology and they have skills in Food Process Innovation, Product Formulation, Predictive Microbiology, Precision Fermentations, and Biotechnological valorization of food waste and by-products. The Master Degree Course prepares the students also on Food Quality, Food Functional and innovative analytical aspects for Food characterization, as well as their market orientation.</p> <p>Website: <a href="https://distal.unibo.it/en/">https://distal.unibo.it/en/</a></p>	
 <p>faculty of food technology and biotechnology University of Zagreb</p>	<p><b>Partner</b></p>	<p>The Faculty of Food Technology and Biotechnology at the University of Zagreb is the leading institution in the Republic of Croatia in terms of science, research and education in the fields of biotechnology, food technology and nutrition science. For many years, this Faculty has been educating highly qualified experts, conducting scientific research and professional projects in cooperation with industry and has been a major driving force of Croatian economic development in the above mentioned fields. In the past years many generations of food technologists, biotechnologists and nutritionists working in food, fermentation and pharmaceutical industries and various jobs in the public sector were educated at the Faculty.</p> <p>Website: <a href="https://www.pbf.unizg.hr/en/">https://www.pbf.unizg.hr/en/</a></p>	

In collaboration with:



YOUAREIN - YOUng AgRifood European INovators

Project number 2022-1-PLO1-KA220-HED-000087693



## SHIFT – Strategic Synergies in Agro-Food – Blended Intensive Programme (BIP)

### Objectives & Competencies

The course aims to provide participants with a holistic understanding of the agro-food industry by integrating foundational knowledge, artificial intelligence applications, food formulation principles, bioactive compounds, biotechnological valorization practices, sustainability considerations, and entrepreneurial perspectives. Through a combination of theoretical insights, practical workshops, expert lectures, and industry engagement, participants will gain a comprehensive skill set to navigate the complexities of the agro-food sector and contribute to its sustainable development and innovation.

**Field of Education (ISCED Code):** 0721 (Manufacturing and processing / Food Processing)

**Level of Study:** EQF-7 – Second Cycle /Master's or equivalent level

EQF-8 – Third Cycle / Doctoral or equivalent level



### Certificate

After completing the program, the participants will receive a Certificate of Program Attendance and acquired ECTS credits. The certificate will be accompanied by a document containing the list of subjects, learning outcomes, acquired competences and **4 ECTS** credits.

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Online Program		
Date	Time (CET)	Topics
7 March	10:00-11:30	<ul style="list-style-type: none"><li>• Introduction</li><li>• Food Trends &amp; Sustainability</li><li>• Teamwork</li></ul>
14 March	10:00-11:30	<ul style="list-style-type: none"><li>• Presentation of YOUAREIN project</li><li>• Introduction to Design Thinking</li><li>• Virtual Visit to UCP Facilities</li><li>• Teamwork</li></ul>
21 March	10:00-11:30	<ul style="list-style-type: none"><li>• New Technologies and Trends as Alternatives to Meat and Dairy Products</li><li>• Exploration of new innovations in food alternatives</li><li>• Artificial Intelligence in Agro-Food</li><li>• Applications of AI, machine learning, data analytics, and digitalization in the Agro-Food sector.</li><li>• Introduction to Industry 5.0.</li><li>• Teamwork</li></ul>
28 March	10:00-11:30	<ul style="list-style-type: none"><li>• Valorization of Agro-Food By-Products. Sustainable practices and waste reduction in the food industry</li><li>• Holistical and Multidisciplinary Approaches for Sustainable Food Systems</li><li>• Teamwork</li></ul>
4 April	10:00-11:30	<ul style="list-style-type: none"><li>• Food Phytochemicals – Nutraceuticals and Bioactive Compounds – Applications</li><li>• Integrating Sustainable Technologies and AI in Food Distribution: A Pathway to Achieving SDGs and Reducing Waste</li><li>• Teamwork</li></ul>
11 April	10:00-11:30	<ul style="list-style-type: none"><li>• Case studies</li><li>• Teamwork</li></ul>
On-Site Week Program		
Date	Time (CET-1)	Topics
5 May	14:00-17:00	<ul style="list-style-type: none"><li>• Welcome</li><li>• Teamwork</li><li>• Practical Workshop: Formulation exercises and hands-on experience</li></ul>
6 May	10:00-17:00	<ul style="list-style-type: none"><li>• Project development</li><li>• Field Trip to a Food Producer</li></ul>
7 May	10:00-17:00	<ul style="list-style-type: none"><li>• Project development</li><li>• Field Trip to a Packaging/Equipment Company</li></ul>
8 May	10:00-19:30	<ul style="list-style-type: none"><li>• Project development</li><li>• Project presentation</li><li>• BIP dinner</li></ul>
9 May	8:30-12:00	<ul style="list-style-type: none"><li>• Touristic Tour to Port Wine Cellars</li></ul>



**[LINK to detailed BIP program](#)**





## REGISTRATION:

Please send your expression of interest to [clsilva@ucp.pt](mailto:clsilva@ucp.pt) and complete the **FORM**.

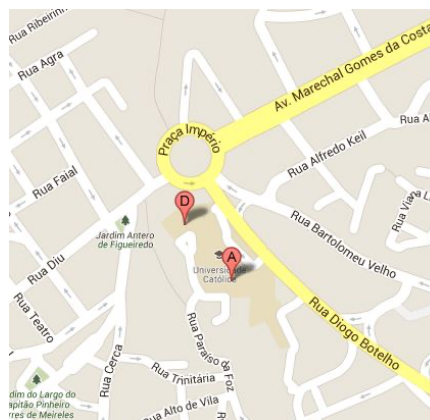
**Deadline → 5 March**

## ERASMUS SCHOLARSHIPS

### ASK YOUR INSTITUTION FOR FUNDING!



The expenses of the mobility of participants (students and scholars) can be covered by Erasmus funding from their home institution.



ON-SITE Week LOCATION: [LINK](#)



Rua de Diogo Botelho, 1327  
4169-005 Porto  
Portugal

**More Information:** [international.porto@ucp.pt](mailto:international.porto@ucp.pt)

## List of Lecturers



**Cristina L.M. Silva** is an Associate Professor at the Universidade Católica Portuguesa – College of Biotechnology (ESB) and leads the Laboratory of Food Engineering and Packaging at the CBOF research center. Her research, with a SCOPUS® h-index of 42, involves mathematical modeling and optimization of food processes, design and optimization of food process conditions, predictive microbiology, and quality changes in food due to processing.

[Website](#)



**Marta Coelho**, an accomplished academic with a PhD in Food Science and Technology and Nutrition, specializes in functional ingredients and the valorization of agro-industrial by-products. As a researcher, lecturer, and Coordinator of the Smart Waste Young Professional group, she has an h-index of 16 and over 30 peer-reviewed publications, with a focus on gastrointestinal microbiota modulation and chemical compounds bioavailability.

[Website](#)



**Eduardo Luís Cardoso** has a PhD in the subject of Innovation from the School of Engineering of the Minho University. Holds an appointment as Assistant Professor in the area of Innovation and Entrepreneurship, and he is an Integrated Researcher at the CBOF Research Center. Since 2018 is the Executive Director of the Interface Center EBRI, focused on technology transfer, knowledge management and valorization, and Entrepreneurship.

[Website](#)








**Teresa Brandão** is an Invited Assistant Professor at the Universidade Católica Portuguesa – College of Biotechnology (ESB) and an auxiliary researcher at the CBOF research center. Her research focuses on thermal and mild non-thermal food processes, preservation techniques, and bioactive compound recovery. With expertise in predictive microbiology, statistical modeling, and experimental design, she explores ozone, ultrasound, UV-C, and cold plasma treatments to enhance food quality and safety, particularly in fruit and vegetable matrices.

[Website](#)



**Maria da Conceição B. M. S. Hogg** is an Assistant Professor at the Universidade Católica Portuguesa – College of Biotechnology (ESB) and manages the Pilot Plant and KitchenLab. She holds a PhD in Food Science and Technology from the University of Reading and a Chemical Engineering degree from FEUP. Her teaching spans food processing, fermentation and enzyme technology, and product development. She has led the Frulact Chair, coordinated Ecotrophelia, and contributes to research, innovation projects, and industry collaboration.

[Website](#)

	<p><b>Francesca Patrignani</b> is an Associate Professor in Food Microbiology at Alma Mater Studiorum – University of Bologna and Coordinator of the Master's in Food Science and Technology since 2021. She also presides over the Italian Coordination of Bachelor and Master Programs in Food Science and Technology. Her research focuses on non-conventional yeasts and lactic acid bacteria for by-product valorization, functional microorganisms for food safety and quality, non-thermal microbial decontamination technologies, and natural antimicrobials. With a SCOPUS® h-index of 40 and over 130 publications, she also serves as Associate Editor for <i>Frontiers in Microbiology</i>.</p> <p><u><a href="#">Website</a></u></p>
	<p><b>Federico Drudi</b> is a third year PhD student with in-depth knowledge of new emerging technologies and physical properties of food. He is passionate about food innovation and development, characterized by good organizational skills and excellent deadline management. He is used to work on a project basis and prefers dynamic and international environments. After 4 years of university work, he acquired an open but critical mindset that now he would like to apply in a new and stimulating environment, as part of a team.</p> <p><u><a href="#">Website</a></u></p>
	<p><b>Anet Režek Jambrak</b> is a full-time professor (tenured) at the Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia. Since 2019, she has been the head of the Laboratory for Sustainable Development. Her areas of research are nonthermal processing, advanced thermal processing, sustainability, food processing, industry 4.0, digitalization, food chemistry, food physics, etc.</p> <p><u><a href="#">Website</a></u></p>
	<p><b>Jasenka Gajdoš Kljusurić</b>, full professor at the Faculty of Food Technology and Biotechnology, University of Zagreb, where she has been employed since 1996., in the Department of Process Engineering / Laboratory for Measurement, Control and Automation. Since the employment she has been involved in measurement, control, modeling and optimization in food technology and nutrition and her area of research is food chemistry (adulteration, utilization of waste in food production), sustainable measurement techniques such as NIR spectroscopy, applied data analysis and chemometrics, applied digitalization and AI in the profession.</p> <p><u><a href="#">Website</a></u></p>
	<p><b>Małgorzata Nowacka</b> is an associate professor at the Institute of Food Sciences at the Warsaw University of Life Science. She is a specialist in the field of food drying, the application of non-thermal food processing methods, food storage and safety, and packaging.</p> <p><u><a href="#">Website</a></u></p>