



## Contents

<b>NEWS ABOUT ISEKI-FOOD ASSOCIATION MEMBERS/PARTNERS</b> .....	<b>1</b>
Launching of the new project CATALYSE .....	1
Microalgae, seaweeds and haloarchaea as sustainable sources of carotenoids.....	2
CTNC (National Technological Centre for the Food and Canning Industry, Spain) project involvement .....	3
<b>NEWS ABOUT PROJECTS WITH ISEKI-FOOD ASSOCIATION PARTICIPATION</b> .....	<b>4</b>
WATSON is now a managing project on the sustainable food system innovation platform.....	4
Join the WASTELESS Monthly Café Talks about Food Loss and Waste.....	5
HORECA-FS holds its last partners meeting in Vienna and plans the last activities for the last months of the project .....	6
E-SafeFood Project extension and new courses soon available.....	7
Skills needs in the food industry – outcomes of the I-RESTART project focus groups with experts .....	8
Expand your knowledge with the innovative eLearning platform of the ERASMUS+ project FIELDS – Training available for FREE .....	10
FAIRCHAIN: Intermediate Food Value Chains, get to know more with our free online trainings .....	11
<b>NEWS ABOUT OTHER PROJECTS</b> .....	<b>12</b>
Horizon Europe Project micrOorc will develop emerging technologies to increase food quality, increase shelf life and reduce food waste .....	12
<b>NEWS ABOUT EDUCATION AND TRAINING</b> .....	<b>13</b>
Post-doctoral Research Opportunity in Turkey .....	13
Training programmes on sustainable food packaging at University of Ghent .....	13
<b>UPCOMING FOOD-RELATED EVENTS / WEBINARS</b> .....	<b>14</b>

## NEWS ABOUT ISEKI-FOOD ASSOCIATION MEMBERS/PARTNERS

### Launching of the new project CATALYSE

by [Paula Teixeira](#), College of Biotechnology, Portuguese Catholic University, Portugal

We are excited to share that a European Project focus in food safety innovation call CATALYSE, has officially started on January of 2024. CATALYSE Project comprise 17 partners and was selected as the best proposal on the call: HORIZON-CL6-2023-FARM2FORK-01-12.

The ambition of CATALYSE is to promote the creation of a more resilient, sustainable, and equitable community, both online and in practice, to understand the needs of stakeholders, from “farm2fork” to ensure food safety.



This three years project has the goal to improve and streamline the uptake of knowledge and innovative solutions in food safety. The best way to achieve our aim, was discussed by all *catalysers* in the Kick-off Meeting, from 31<sup>st</sup> Jan until 1<sup>st</sup> Feb 2024.

Kick-off Meeting, 31<sup>st</sup> Jan - 1<sup>st</sup> Feb 2024

The main actions we decided to perform are:

- i. Developing a database to connect system actors with “Farm2Fork” innovations and knowledge, to increase awareness and understanding;
- ii. Establishing the CATALYSE community of practice (CoP) to foster collaboration to accelerate the adoption of innovative practices and technologies;
- iii. Producing educational materials and provide trainings to CoP on the innovation in food safety;
- iv. Supporting start-ups and SMEs with innovations in food safety - testing methods and technologies, with the focus on traditional and local producers;
- v. Encouraging end-users, such as consumers and policymakers, to prioritise innovation in the food system;
- vi. Evaluating the impact of innovation on the food system

**Uniqueness of CATALYSE:** Catalyse will be a platform where all the actors of the food chain will be able to meet. Innovators, regulators, academia, industries, non-governmental organizations and *catalysers* will define together the needs and challenges that innovation can either answer and/or offer. By linking all these actors, we will foster tailor made and co-created innovation with an identified market for implementation, providing win-win solutions.

[#foodsafety](#) [#europeanunion](#) [#increaseawareness](#) [#knowledgesharing](#) [#education](#) [#startups](#)

## Microalgae, seaweeds and haloarchaea as sustainable sources of carotenoids

by Prof. Antonio Jesús Meléndez Martínez, Universidad de Sevilla, Spain, and Prof. Rosa León, Universidad de Huelva, Spain

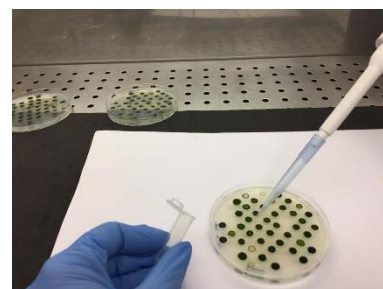
In this project, the teams of Prof. Antonio Jesús Meléndez Martínez (Universidad de Sevilla, Spain) and Prof. Rosa León (Universidad de Huelva, Spain) liaise to valorize new economically feasible sources of natural carotenoids. Specifically, seaweeds, microalgae and *haloarchaea* are targeted as they are being progressively incorporated into the diet of human beings and animals, directly or as extracted ingredients. To valorize the nutritional value and health promoting properties of these carotenoid-enriched extracts, optimized production platforms and better knowledge of their bioavailability, extractability and potential biological actions are necessary.

In the subproject led by Universidad de Huelva genetic manipulation and edition of microalgal genomes, are being performed. The goal is to approach the targeted knock-out of key steps of the carotenoid biosynthetic pathway in robust fast-growing and model chlorophyte microalgae, and induce the production of relevant carotenoids (lutein, zeaxanthin) or high added-value market-demanded carotenoids, not usually accumulated in these strains such as lycopene and  $\beta$ -cryptoxanthin. The algal mutants will be generated by New genomic techniques (NGT), such as CRISPR, in such a way that they cannot be considered transgenic. In addition, metagenomics approaches will be exploited for the discovery of new carotenoid-productive microorganisms, focusing preferably on extremophiles archaea, bacteria and microalgae, inhabiting the salt ponds of the Odiel Marshlands.



The microalgal and halorachaeal biomasses produced will be further studied by the Universidad de Sevilla team, which will also evaluate edible seaweeds. Specifically, in this subproject, the potential bioavailability (bioaccessibility) of carotenoids in all those matrices will be evaluated. Greener extractions of carotenoids using different types of biosolvents and technologies such as ultrasounds and microwaves will also be tested. Lastly, possible health-promoting biological actions of carotenoid-rich extracts will be tested in the model organism *Caenorhabditis elegans*.

The production of carotenoids will be accompanied by the valorization of other fractions of the biomass obtained after their extraction, within a biorefinery approach that makes the whole processes more economically feasible. The carotenoid-enriched extracts and the protein fractions obtained after extraction of the carotenoids will be characterized, enzymatically hydrolyzed and tested for different functional bioactivities by several in vitro assays, already optimized by the Universidad de Huelva team. The study of their antiproliferative activities using several human colonic adenocarcinoma, as well as mouse fibroblast cell lines will be performed in collaboration with researchers of Universidad de Granada (Spain).



## CTNC (National Technological Centre for the Food and Canning Industry, Spain) project involvement

by [Angel Martínez Sanmartín](#), ISEKI-Food Institutional member, CTNC, Spain

CTNC is a reference in food technology, its main action being to promote innovation and technological development of the agri-food sector at the International and National level as basic infrastructure for technological assistance and knowledge transfer to companies. A high percentage of the CTNC's activity is carried out in the field of the Circular Economy, implementing strategies that take into account all the co-products generated in the valorization processes tested in its pilot plant, as well as the validations necessary to put new products in the market.

CTNC is a Cervera Center of Excellence for the project "Establishment of a Cervera Network for the development of highly sustainable technical materials derived from by-products or residues of the agricultural industry and of the operations of conservation of natural spaces - AGROMATTER" and has worked in collaboration with other 4 Spanish centers to establish a network applied to the development of biobased materials for technical applications (textile, packaging, agricultural sector, etc.) since 2021. It has been a project financed by the CDTI (Center for Industrial Technological Development), through the Ministry of Science and Innovation of Spain, within the framework of grants for "Cervera" Technological Centers of Excellence. CER-20211013.

The objective of the project has been the valorization of agro-food waste and by-products, and thus achieve a position as reference R&D centers both nationally and internationally, in a way that results in growth in R&D projects and in technology transfer actions to the business. For three years, CTNC has improved its technical capabilities and achieved an increase in technology transfer, being able to promote more than 30 collaborative projects and assistance to companies. To do this, it has used different demonstrators as a tool, all focused on different sectors. Specifically, it has worked on the nutraceuticals and cosmetics demonstrator and has been an intermediary with finalist development centers for sectors such as packaging, agriculture, cosmetics, textiles and automotive. CTNC has worked on demonstrator related to nutraceuticals and cosmetics with the objective of carrying out the scaling up at a pilot level of the sustainable processes of the industrial by-products of lemon, broccoli and grapes, and their validation in the agri-food sector. Products with these extracts rich in fiber, sugars and antioxidant compounds (polyphenols), as well as other co-products free of polyphenols has been elaborated: i) Jams in which the pectin additive is replaced by natural fiber obtained from lemon peel; ii) Kombuchas from liquid extracts of lemon, grape and broccoli, and iii) Sponge cake enriched in citrus fiber. Also noteworthy is its involvement in other demonstrator, providing raw materials for fermentation processes that generate agricultural products and collaborating in the study of a biofertilizer during the germination stage, or validating the biostimulant effect in a specific crop.

Finally, CTNC provides innovative solutions for the implementation of a Circular Economy Strategy in companies in the agri-food sector. Therefore, the CTNC offers the sector the possibility of developing customized projects and makes available to agri-food companies an R&D Support service in which to provide the client with a complete image of the different financing possibilities that there is at a Regional, National or International level. Within the framework of the CERVERA AGROMATTER NETWORK, CTNC has improved its capabilities to detect calls that are published periodically, being able to offer updated information when they are published in the official bulletins or specific portals of the responsible organizations.



## NEWS ABOUT PROJECTS WITH ISEKI-FOOD ASSOCIATION PARTICIPATION

### WATSON is now a managing project on the sustainable food system innovation platform

by Sara Barbosa & Ana Ramalho, Project Managers at ISEKI-Food Association



HOME > ABOUT US

## Managing projects

The Sustainable Food System Innovation platform is an online environment created for anyone interested in **sustainable food** who wants to stay up to date with the latest achievements, outcomes, innovations, and activities in sustainable food systems. The platform is an interesting tool for consumers, farmers and cooperatives, industry and retail, policymakers, and technology providers. The platform is kept live with contributions from the managing and contributing EU-funded projects, which aim to build a common and centralized point of knowledge, with the advantage of having the information available and website updated years after the conclusion of each project. This strategy turns the platform into a long-term project in motion.

The WATSON Project, of which the ISEKI team is a partner, recently joined the Sustainable Food System Innovation Platform as a managing project. The WATSON project has the strong goal of improving traceability in the sustainable food system. The project outcomes will provide a set of tools and mechanisms that can detect and prevent fraudulent activities throughout the entire food chain, thus accelerating transparency solutions in the EU food systems. Specifically, the project addresses the honey, wine, fish, meat, dairy, and olive oil food chains. Its aim is also to equip authorities and policymakers with the data, knowledge, and insights to attain complete situational awareness of the food chain.



All the WATSON results will be available on the platform and this collaboration will enhance the visibility of the WATSON Project as well as the platform.

Register [here](#) and get the latest news!

To know more about the WATSON Project and be updated, follow us on our Social Media Channels and visit our [website](#).



Horizon 2020  
European Union funding  
for Research & Innovation



[Back to contents](#)

## Join the WASTELESS Monthly Café Talks about Food Loss and Waste

by [Luminita Ciolacu](#) and [Sofia Reis](#) (alphabetically), Project Managers at ISEKI-Food Association



**WASTELESS** project will host a series of Monthly Café Talks to engage with all stakeholders in the food value chain on topics related to Food Loss and Waste (FLW). ‘We could not be more excited to start the interactions with our community members and engage with all interested stakeholders through the WASTELESS Monthly Café Talks. Drink your coffee with us and discuss about your topic of interest related to FLW!’ says Luminita Ciolacu, Project manager at ISEKI Food Association, part of the organisation team.

The Monthly Café Talks are aimed at encouraging, through active exchange of views and the best practices on FLW measuring, monitoring and valorisation strategies between all food value chain actors, from primary producers to consumers, policy makers, researchers and others. We are expecting an inspiring share of information on their needs, expectations, and topics of interest. Experts will be invited to share their perspectives, achievements and challenges encountered and answer questions from the participants.

The official launch will be on **Friday 19<sup>th</sup>, of April 2024, at 11:00 CET** with Prof. Ana Barros (UTAD), WASTELESS Coordinator, to debate on the topic: **Unlocking Value of FLW!** The discussion will cover strategies for repurposing by-products into valuable ingredients and pioneering new food concepts, emphasizing the economic and environmental advantages of these practices, embracing a circular economy approach.

The meetings are free and open to all. Register [here](#) to join!

For any questions contact [luminita.ciolacu@iseki-food.net](mailto:luminita.ciolacu@iseki-food.net) or [sofia.reis@iseki-food.net](mailto:sofia.reis@iseki-food.net)

Stay connected with WASTELESS on [wastelesseu.com](http://wastelesseu.com), [Twitter](#) and [LinkedIn](#).



**Funded by  
the European Union**

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 [Back to contents](#)

## HORECA-FS holds its last partners meeting in Vienna and plans the last activities for the last months of the project

by **Federica Striglio & Sara Barbosa**, Project Managers at ISEKI-Food Association



### Strategies to improve the Qualification of Hotel Restaurant Catering Staff on Food Safety and Hygiene Practices

The 3<sup>rd</sup> and final Transnational Meeting of the HORECA-FS consortium took place in Vienna, Austria, on October 17<sup>th</sup> and 18<sup>th</sup>, 2023. The meeting was hosted at the Impact Hub Vienna by the ISEKI Food Association, and partners attended from Turkey, Poland, Slovakia, and Spain. The partners in attendance were Çanakkale Onsekiz Mart University (TR), the Slovak University of Agriculture (SK), The Polish Farm Advisory (PL), and Centro Tecnològico Nacional de la Conserva (ES).

The meeting was fruitful and allowed partners to plan the next steps in project activity implementation. Partners had the opportunity to share their results of the initial Piloting activities of the developed courses, and many updates and comments for the E-Learning platform were discussed.

The milestones of the project implementation were set and agreed upon by all participating members. Each partner presented their ideas for the piloting activities and multiplier events that they will be developing and leading, and further discussions took place until all parties were satisfied, and the overall coherence of the modules was guaranteed, the dissemination plan and the quality assurance plan were presented and agreed upon.

We invite our readers interested in the Horeca sector to register on our platform and take the course. It is available at <http://www.horecafs.org/lms>, where you can find six different modules regarding the safety and hygiene rules in this sector.



This project has been funded with support from the European Commission.

This document reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



## E-SafeFood Project extension and new courses soon available

by **Federica Striglio, Luis Mayor, Sara Barbosa, Luminita Ciolacu**, Project managers at ISEKI-Food Association



Good news from the **e-SafeFood Project: a 6 month extension was granted!** This extension allows the consortium partners to delve even deeper into activity development efforts, ensuring the delivery of best possible outcomes.

In addition to the 6-month extension, the project consortium wishes to inform that the first developed course on Microbial Shelf Life is in the final stages and will be available soon for all interested participants who will receive a certificate upon completion. The second course on Process Validation, available in advanced level, will be soon uploaded on the [Moodle platform](#) of ISEKI-Food Association. These courses are designed to provide valuable insights, knowledge, and practical skills to our audience:

What can be expected from the upcoming courses:

- **Microbial Shelf Life:** The module will teach trainees about the main regulatory requirements, studies, and tools necessary to validate or verify the microbial shelf life of foodstuffs. This course will be available at Basic, Intermediate and Advanced level.
- **Process Validation:** This module teaches proof of process efficiency, topics in predictive microbiology, and validation of processes. This course will be available at the advanced level.

Stay tuned for more updates on the launch dates and registration details for these courses.

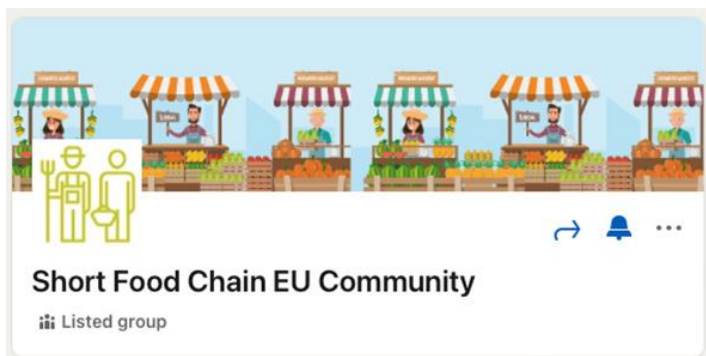
Follow us on: [website](#), [LinkedIn](#), [Twitter](#) and [Facebook](#).

Project details can be found on the ISEKI Project Overview page here: <https://www.iseki-food.net/projects/project-overview>

**Contact:** Gemma Cornuau, Project Coordinator: [g.cornuau@actia-asso.eu](mailto:g.cornuau@actia-asso.eu)

## EU4Advice: Join our “Short Food Chain EU Community”

by **Katherine Flynn and Sofia Reis** (alphabetically), ISEKI-Food Association



ISEKI-Food Association is a partner in [EU4Advice](#), a Horizon Europe CSA aiming to build capacity of Short Food Supply Chain (SFSC) actors and boost the role of advisors as catalyzers of knowledge flow in SFSC.

We are creating new methods of interaction and invigorating existing ones including the LinkedIn group formed in 2018 during the [SMARTCHAIN](#) project. The group now has almost 700 members! As a group member, you can post about activities in your organization and meet SFSC innovators from around Europe.

Join the group [here](#).

## Skills needs in the food industry – outcomes of the I-RESTART project focus groups with experts

by Ana Ramalho and Luis Mayor, ISEKI-Food Association Project Managers

The Erasmus+ project I-RESTART aims to reskilling and upskilling the workforce in the agri-food and veterinary sectors to improve their digital skills and facilitate the transition to the Green Deal initiative. The starting point of the project was to map the skills needs in the different sectors, taking into consideration the work developed to identify the skills gaps under the FIELDS project, in a complementary way. To carry out this task, several activities were undertaken, namely focus groups with experts, a European survey and the analysis of future scenarios on skill needs.



Diving into the results of the focus groups for the Food Industry sector, several outcomes can be highlighted. These focus groups were organised in the project partner countries Austria, Denmark, Germany, Greece, Italy, Netherlands, Portugal, Slovenia and Spain, between March and May 2023, most were online, and two were in a face-to-face format. In total, 76 participants from different stakeholders of the food industry, such as managers and directors, as well as advisors and education providers, get together to debate the main current and future skills needs, according to their experience, in each topic presented. The groups also discussed the best methods for delivering training, but also the main challenges they found in training their staff.

Here we highlight the three skills needs most mentioned in all the focus groups across countries most mentioned by area of knowledge, alongside some concerns and statements expressed by the focus group participants.



In **digitalization**, data management (collection, handling, analysis); basic IT skills; and sector specific digitalization skills (software, equipment, robots, machinery) were seen as the most needed out of 15 identified skills. Some of the arguments given were: *“In the food industry, many tasks have been replaced by robotization; this was previously mostly unskilled labour. The use of technology is not just about replacing existing human tasks with computers or robots. Work is now all high-tech business, with new work and processes and questions arising (FG The Netherlands)”*. Also, big differences in terms of IT skills are observed: *“some do nothing else the whole day long than using a computer, and others only knows how to switch it on (FG Austria)”*.

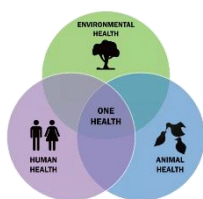


In the field of **Sustainability**, Sustainable use of resources (energy, water, raw materials...); Environmental impact of food industry activities and its measurement; and Awareness of the circular and sustainable food production concepts, were the top three skills mentioned, among 13 identified skill needs. As some focus group participants said: *“Being able to label a product’s environmental footprint is a new trend that should and will be a common practice for all food products in the coming years (FG Denmark)”*, and *“The ability to evaluate the and tackle and issue in a sustainable way - e.g. process water vs. food safety, because from a food safety point of view, process water should be changed quite often, but from a circular economy point of view, it’s the opposite. It is very difficult for the responsible person because it wasn’t an issue 20 years ago (FG Austria)”*.



In **Business and soft-skills**, Teamwork, negotiation and conflict management; Leadership; and Innovation management were the three most requested skills out of the 21 identified. The experts strongly emphasised soft skills as a real need for food workers in the food industry arena: *“The ability to work in a team is the only way a production system, like the food one, can exploit its potential. Whether we are considering food companies or restaurants, effective teams can improve the food experience. In addition, it makes day-to-day activities run more smoothly: operators work more efficiently, and they also tend to innovate faster as they genuinely collaborate (FG Italy)”*, and *“Positive leadership could be a key element not only to successfully lead a company, making higher profits but also to build strong loyalty with customers. Food*

companies led by effective leaders have more chances to be successful at the local or even global level. Leadership helps to be more proactive and reactive to new trends consumers show and innovation to be implemented (FG Italy)”.



In the emerging **One Health** domain, Basic knowledge on food, nutrition, and health (including nutraceuticals and gut microbiome); Food safety awareness and emerging food safety topics related to new consumer trends; and Food and feed security topped the list of 15 skills. Some of the comments behind this selection were: “*Information about the products is a matter of public health. Myth-based food fads are completely legitimate on an individual basis but should not be disseminated as truth (FG Portugal)*”, and “*Food safety significance among the workforce of a food industry differs. Continuous and tailored-made trainings based on the initial knowledge on the theme should take place (FG Greece)*”.



In **Sector-specific trends**, New ingredients, novel foods and nutraceuticals; Smart Packaging and food contact materials; and Efficient management of the supply chain (resources and logistics) scored highest out of 15 skills. Some experts opinion on these needs were as follows: “*Food industry workers and operators should be updated on novel foods and other new terms coming from innovation in the sector (FG Italy)*”; “*Active packaging provides superior protection against moisture, oxygen, odour, and other volatiles which helps packaged foods last longer and has a direct effect on food sustainability (FG Greece)*” and “*Knowledge in logistics is highly distinctive for today’s food industry: from raw material sourcing to final product distribution, a harmonised system is necessary to avoid serious critical issues and shortages (FG Italy)*”.

Another central question was to understand the difficulties related to training and how to overcome them. Among the 15 difficulties mentioned, the experts identified a lack of precise, target-oriented training; a lack of (qualified/motivated) trainers and a lack of practical relevant training. With regard to training methods, the three most requested by participants in the focus group were in line with the difficulties described, which suggests the importance of addressing these issues: Relevant practical training; Online learning and Specific training (expert or tailor-made).

The I-RESTART project will continue its efforts to tackle the needs observed and help the food industry workers to improve their skills and competences. According to these skill needs, training materials will be developed by the consortium and will later be made available on the website. In addition, face-to-face training sessions will also be carried out in the partners countries, focusing on the most important skills needs found in each country.

Stay tuned for more news on I-RESTART activities on [LinkedIn](#) ,[Twitter](#) and the project [website](#).

## Expand your knowledge with the innovative eLearning platform of the ERASMUS+ project FIELDS – Training available for FREE

by **Julian Drausinger, Stefan Ferlin and Lisa Meidl**, Lebensmittelversuchsanstalt (LVA), Austria & **Ana Ramalho and Luis Mayor**, ISEKI-Food Association



industry side.

The **Erasmus+ project FIELDS** aims to address the skills needs in the Agri-food and Forestry sectors, in alignment with the European skills agenda and strategy. The current demand for digital transformation is important to improve process efficiency and flexibility in production to respond to market demands. At the same time, the sectors are committed to more sustainable and environmentally friendly products and processes to comply with the principles of circular economy and consumers trends. All these challenges and trends require to upskill and reskill the labour force from the

Earlier this year, the new **e-learning platform** of the FIELDS project was launched, aiming to provide self-paced and free education to professionals in forestry, food industry, and agriculture. The materials are tailored to specific professional fields and are designed to help individuals navigate this era of digitalization and significant changes. Renowned Austrian experts were involved in the development of this initiative. The course content covers four main areas: **bioeconomy** (17 topics), **sustainability** (29 topics), **digitalization** (18 topics), and **soft skills & entrepreneurship** (10 topics). The knowledge gained through these courses aims to assist businesses in adapting to changing circumstances.

Often, high-quality training programs are expensive, time-consuming, or part of larger educational programs. Additionally, people's experiences vary, and not every training program or formal education aligns perfectly with individual needs. To address this, experts have developed specific learning content that is not tied to a mandatory and elaborate training curriculum. Learners choose which courses they find helpful and progress through the content at their own pace.

If you're interested in topics such as 'How does bioeconomy work?', 'How can I establish environmental management according to EMAS in my company?', 'What is future farming?', 'How can I become a better leader?', or 'How exactly does food processing work?', exciting courses await you, along with answers to many current questions. All you need to do is to create a free account with just a few clicks and select your first lessons. The content and contributions of many experts have been funded through EU grants, making them available to you **free of charge**.

*Register, browse, explore, and download the training of your interest.*

**Increase your knowledge and improve your skills!** Get started today!

Follow FIELDS progress and outcomes through its [website](#), [LinkedIn](#), [Facebook](#) and [Twitter](#)



## FAIRCHAIN: Intermediate Food Value Chains, get to know more with our free online trainings

By [Luminita Ciolacu](#), [Katherine Flynn](#) and [Ana Ramalho](#) (alphabetically), Project managers at ISEKI-Food Association

There is a growing interest in making **food chains more sustainable**, highly circular, less complex, and less dependent on different actors and resources. Many stakeholders working in different areas of the food chains aim to achieve more efficient processes, and products with a smaller ecological footprint. A new paradigm explored by the FAIRCHAN project is the definition and development of **Intermediate Food Value Chains (IFVC)**. This concept empowers producers to move from a local to a regional area of operation, joining forces, sharing costs and having fairer prices. And, at the same time, remaining close to consumers.



The screenshot shows the FAIRCHAIN website interface. At the top, there is a navigation bar with links: HOME, ABOUT US, INVENTORIES, TRAINING, COMMUNITY GROUPS, and LOGOUT. Below the navigation bar, there are two course listings. The first listing is for the course "From Short to Intermediate Food Value Chains". It includes a description: "A 3.5-hour course on based on further research findings of the FAIRCHAIN project. A Certificate of Completion will be awarded to those who complete all sections of the course and receive a grade of 80% or better on the final exam." It also states "Availability: Course is currently available!" and provides a registration link: "Register for the e-learning course 'From Short to Intermediate Food Value Chains' here!". The enrollment key is FAIRCHAIN2023. The second listing is for the course "Introduction to Intermediate Food Value Chains (IFVCs)". It includes a description: "A 2.5-hour course on based on initial research findings of the FAIRCHAIN project. A Certificate of Completion will be awarded to those who complete all sections of the course and receive a grade of 80% or better on the final exam." It also states "Availability: Course is currently available!" and provides a registration link: "Register for the e-learning course 'Introduction to Intermediate Food Value Chains (IFVCs)' here!". The enrollment key is FAIRCHAIN2023.

Under this context the FAIRCHAIN consortium has developed two trainings in online format, directed to anyone interested in finding more about the IFVC, learning from others and knowing their success stories.

**"Introduction to Intermediate Food Value Chains"** (2-hour course) and **"From Short to Intermediate Food Value Chains"** (4-h course) are freely available on the [Sustainable Food System Innovation Platform](#).

**Register! Motivate yourself** and follow the courses at your own pace, anytime, anywhere. In the end **get your certificate!**

A third course is now currently being developed on the innovative process of co-creation in which a collaborative system is settled during the development of the product/innovation to incorporate the visions of those involved in the food chain.

**AVAILABLE, STAY TUNED!**

Follow us and learn more on [LinkedIn](#), [Facebook](#), [Instagram](#), and [Twitter](#) and through our [FAIRCHAIN website](#), where you can subscribe to the [FAIRCHAIN newsletter](#).



The FAIRCHAIN project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No: 101000723

## NEWS ABOUT OTHER PROJECTS

### Horizon Europe Project micrOOrc will develop emerging technologies to increase food quality, increase shelf life and reduce food waste

by **Manuela Guiducci**, CiaoTech – Gruppo PNO, Italy

In *micrOOrc - Orchestrating Food System Microbiomes to Minimize Food Waste*, started on November 1<sup>st</sup>, 2023, funded under Grant Agreement N° 101136248 - we will develop sustainable solutions that reduce and prevent food spoilage and food waste, with focus on technologies, services, tools, policies, and practices that are based on monitoring, utilizing, and targeting microbiomes in food and the food processing chain, says senior scientist Solveig Langsrud at Nofima, and project manager. The tools and technologies developed in micrOOrc are positioned at a high level of research and innovation (R&I) maturity and are expected to achieve TRL6-7 by the end of the project. micrOOrc technologies and scientific discoveries, combined with increasing public awareness and demand for sustainable food, will contribute to a fair, healthy, and environmentally friendly food system, supporting the European Green Deal.



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the granting authority. Neither the European Union nor the granting authority can be held responsible for them.

#### Selected R&D areas

Five areas are selected for the potential for predicting and extending shelf-life, reduction in food waste and fostering a sustainable food system:

- Predictive analytics models incorporating microbiome information to predict shelf-life.
- Time-temperature indicators (TTIs), sensing and smart label solutions for dynamic shelf-life labelling.
- Rapid detection assays for microbial indicators of food spoilage.
- Microbiome based protection technologies to replace synthetic chemicals and increase shelf life and safety.
- Novel packaging solutions targeting spoilage for sustainable development and increased shelf-life.

#### Chicken, salmon and plant-based meat analogue

micrOOrc will support the transition to more sustainable and healthy food systems by considering raw chicken and salmon as well as plant-based meat analogues. To guide and demonstrate the industrial, social, and economic relevance of the micrOOrc innovations, the project will evaluate consumer acceptance and the environmental sustainability aspects of all stages of the product life cycle, identify and help resolve legislative and regulatory challenges to implementation of new technologies, and propose a novel policy framework for microbiome control in the food system.

micrOOrc is brought forward by a multinational, multi-actor and trans-disciplinary consortium including cutting-edge companies and experienced research institutions, as the **Centre for Biotechnology and Fine Chemistry (CBQF)**, at the Portuguese Catholic University.



[Back to contents](#)

## NEWS ABOUT EDUCATION AND TRAINING

### Post-doctoral Research Opportunity in Turkey

by **Mecit H. Öztop**, Middle East Technical University (METU), Turkey

**ENRICH TOGETHER** - Are you currently in your final stages of completing your Ph.D. degree or have already completed your Ph.D. degree and looking for a 12-to-24-month post-doctoral Research Opportunity in Turkey?

As Orta Doğu Teknik Üniversitesi / Middle East Technical University we are delighted to inform you that the first ENRICH-TOGETHER **call for** 10 highly-motivated and excellent **post-doctoral researchers** to be coupled with one of 60+ accomplished academics working in the field of Green and Blue Transition is now open till April 16, 2024.

For further information and application please visit <http://enrichtogether.metu.edu.tr/> #MSCA #COFUND

### Training programmes on sustainable food packaging at University of Ghent

by **Katleen Anthierens**, Ghent University, Belgium

Ghent University is proud and happy to have developed **three unique training programmes** on Sustainable Food Packaging

Three programmes, different in length, intensity, focus and learning outcomes. Something for every taste and every kind of profile, be it young graduates, professionals, or international students.

1. Advanced **Master of Science in Sustainable Food Packaging** (60 ECTS)

A **comprehensive**, holistic programme combining all possible aspects in 9 courses and a master's thesis. The programme leads to master's degree.

2. Postgraduate Programme Sustainable Food Packaging **Solutions** (45 ECTS)

A "**shorter**" programme containing the fundamentals of the master's programme in 7 courses, and a hands-on internship at an external organization.

3. Postgraduate Programme Food Packaging: **Track**: Food, Materials or Sustainability (20 ECTS)

The **shortest** programme focusing on one of the three domains, in which a successful integrative assignment leads to a postgraduate certificate.

Why?

Keeping a food product fresh and safe for as long as possible reduces food waste, but the material needed to ensure the longest possible shelf life is not always the most sustainable. Conversely, the most sustainable material may not have the best effect on the food in terms of food safety or quality. In this way, every food product faces its own puzzling question: which material and technology should we use to maximize shelf life, guarantee quality, be cost-efficient, sustainable, and safe?

These issues are at the heart of our programmes.

Upcoming editions start in September 2024.

All info and registration: [www.sfp.ugent.be](http://www.sfp.ugent.be)

## UPCOMING FOOD-RELATED EVENTS / WEBINARS

### April 2024

**New!** 8 April 2024

EASPA/ASIIN International Day of Higher Education Disciplinary Quality Assurance

More information: <https://www.easpa.org/international-day-of-higher-education-disciplinary-quality-assurance/>  
Düsseldorf, Germany

**New!** 10-12 April 2024

8<sup>th</sup> Cereals & Europe Spring Meeting

More information: <https://cespringmeeting.eu/>  
Zagreb, Croatia

14-18 April 2024

19<sup>th</sup> Food Colloids Conference: Using colloid science to find new sustainable solutions in food

More information: <https://foodcolloids2024.org/>  
Thessaloniki, Greece

15-18 April 2024

PTEP 2024 – Processing and Energy in Agriculture

More information: <http://www.ptep.org.rs/>  
Tara, Serbia

22-25 April 2024

17<sup>th</sup> ICC International Cereal and Bread Congress

More information: <https://icc-icbc.com/en/>  
Nantes, France

### June 2024

5-7 June 2024

NUTRICON 2024 - Food Quality and Safety, Health and Nutrition

More information: <https://keyevent.org/>  
Ohrid, Republic of Macedonia

6-8 June 2024

13th International Conference "Agriculture for Life, Life for Agriculture"

More information: <https://agricultureforlife.usamv.ro/>  
Bucharest, Romania

### July 2024

8-11 July 2024

28<sup>th</sup> International ICFMH Conference FOOD MICRO 2024

More information: <https://foodmicro2024.com/home.php>  
Burgos, Spain

## August 2024

**New!** 6-8 August 2024

3<sup>rd</sup> International Food Research Conference 2024

More information:

[https://food.upm.edu.my/activities/third\\_international\\_food\\_research\\_conference\\_2024\\_3rd\\_ifrc\\_2024-27515](https://food.upm.edu.my/activities/third_international_food_research_conference_2024_3rd_ifrc_2024-27515)

Putrajaya, Malaysia

**New!** 25-28 August 2024

16<sup>th</sup> Conference of Food Engineering

More information: <https://socfoodeng.org/cofe/>

Washington, United States

## September 2024

**New!** 4-6 September 2024

IBEREO 2024 - The Iberian Meeting on Rheology

More information: <https://ibereo2024.com/>

Lisbon, Portugal

**New!** 4-6 September 2024

CIIAL 2024: IV Ibero-American Congress of Food Engineering

More information: <https://www.ciial.org.uy/>

Montevideo, Uruguay

8-12 September 2024

22<sup>nd</sup> World Congress of Food Science and Technology IUFOST 2024

More information: <https://iufost2024-italy.com/>

Rimini, Italy

## October 2024

**New!** 2-4 October 2024

SAAFoST - 2024 Nutrition Congress

More information: <https://conference.eventsair.com/>

Durban, South Africa

**New!** 16-18 October 2024

5<sup>th</sup> International Congress FoodTech 2024

More information: [foodtech24@fins.uns.ac.rs](mailto:foodtech24@fins.uns.ac.rs)

Novi Sad, Serbia

## November 2024

**New!** 5-8 November 2024

**11<sup>th</sup> International Symposium on Recent Advances in Food Analysis**

More information: <https://www.rafa2024.eu/pdf>

Prague, Czech Republic

**New!** 12-14 November 2024

**EFoST2024 - 28<sup>th</sup> EFFoST International Conference**

More information: <https://effostconference.com/>

Bruges, Belgium

### Editorial Board

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