



wasteless

Waste Quantification Solutions to Limit Environmental Stress

Ana Novo Barros





wasteless

*"Reducing food waste is not only
a responsibility but also an
opportunity for positive change"*

1. BACKGROUND



 **FOOD LOSS AND WASTE FACTS**

every year around the globe

1.3 BILLION TONNES OF

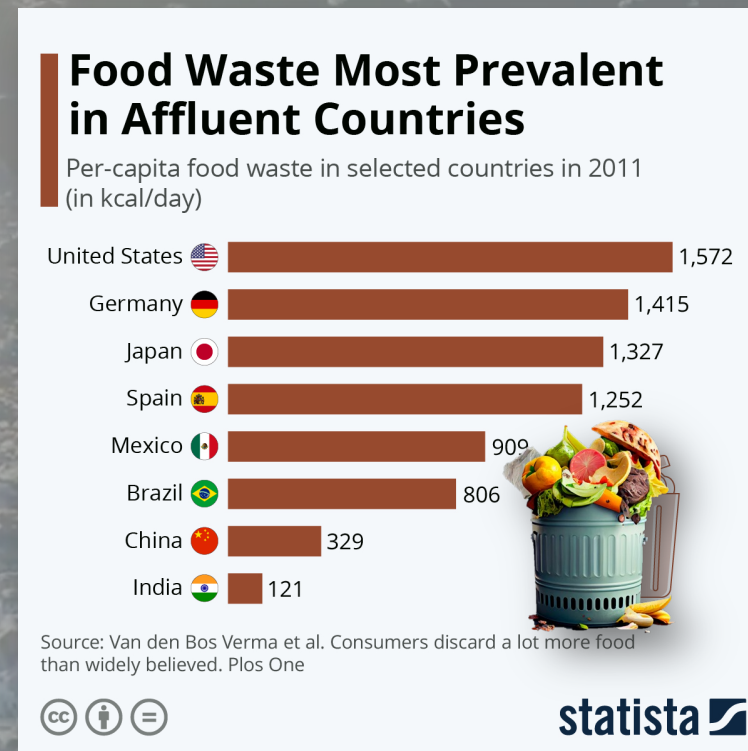
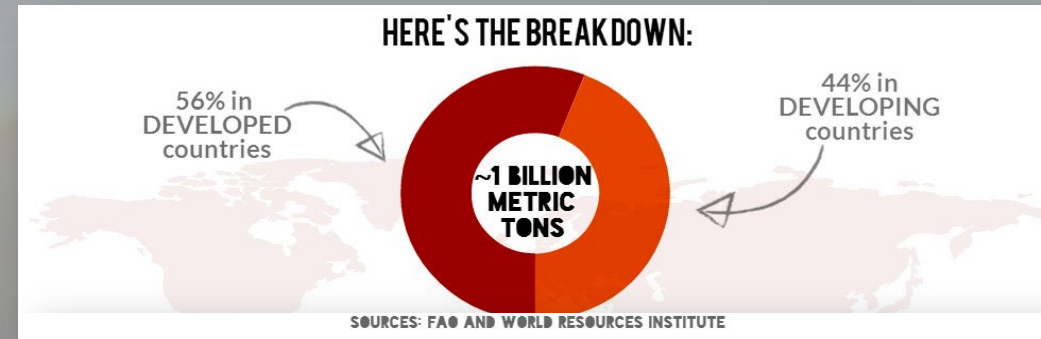
FOOD

is

lost or wasted

that is

1/3 OF ALL FOOD PRODUCED FOR HUMAN CONSUMPTION





Around 800 million people suffer from hunger, and malnutrition impacts nearly one in three individuals worldwide.

average daily protein consumption.

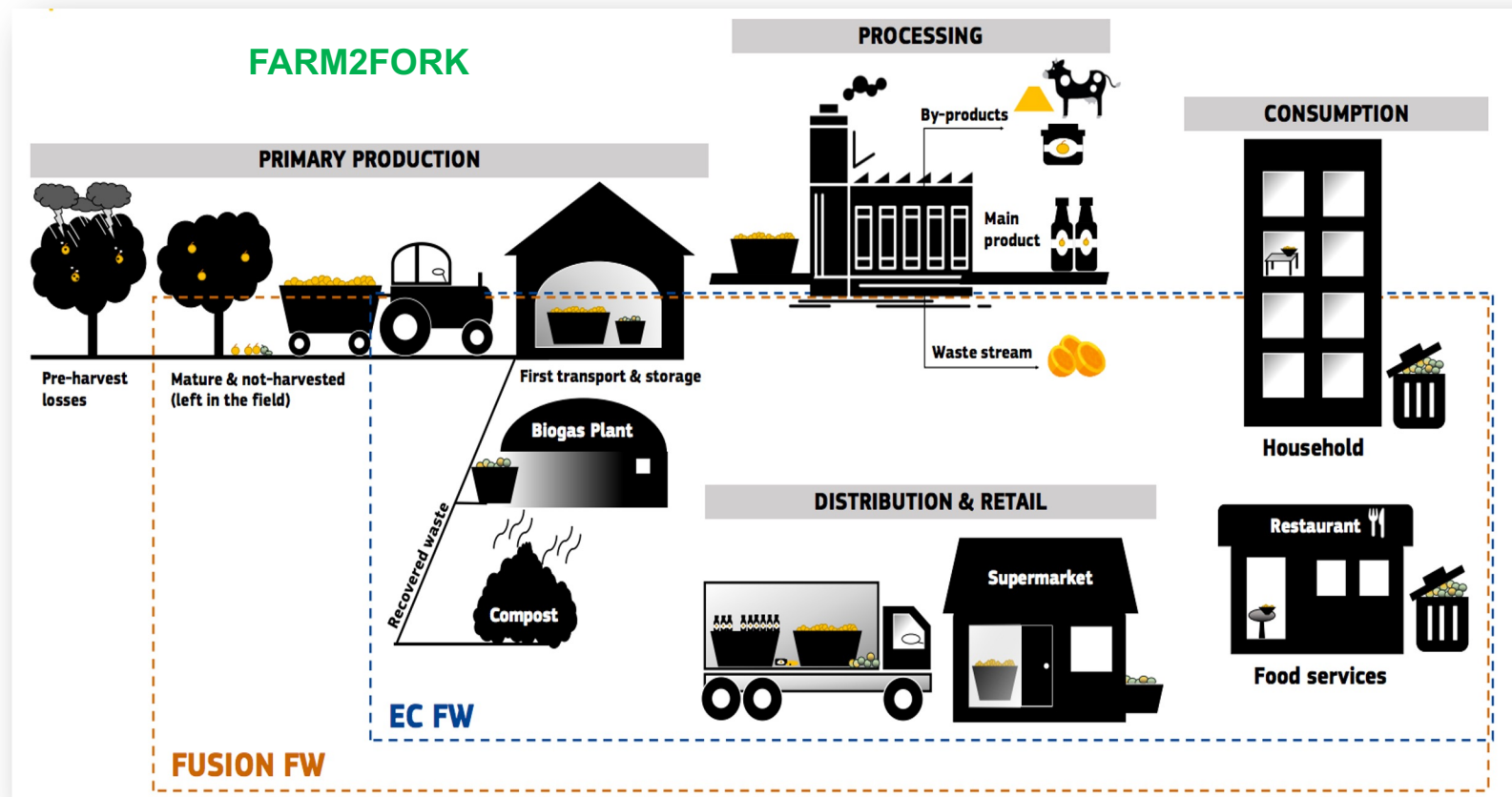


WHAT IS FOOD WASTE (FW)?



EUROPEAN COMMISSION:

food and inedible parts of food removed from the food supply chain, except crops ploughed back into the soil or left unharvested (e.g. crop produce left in the field due to its low economic profitability)



What are the sources of food waste in Europe?

Around one third of the food produced globally is lost or wasted. Food waste represents a substantial loss of other resources such as land, water, energy and labour.

Manufacturing

- By-products, such as carcasses & bones from meat production
- Misshapen products
- Damaged products
- Overproduction

Wholesale and retail

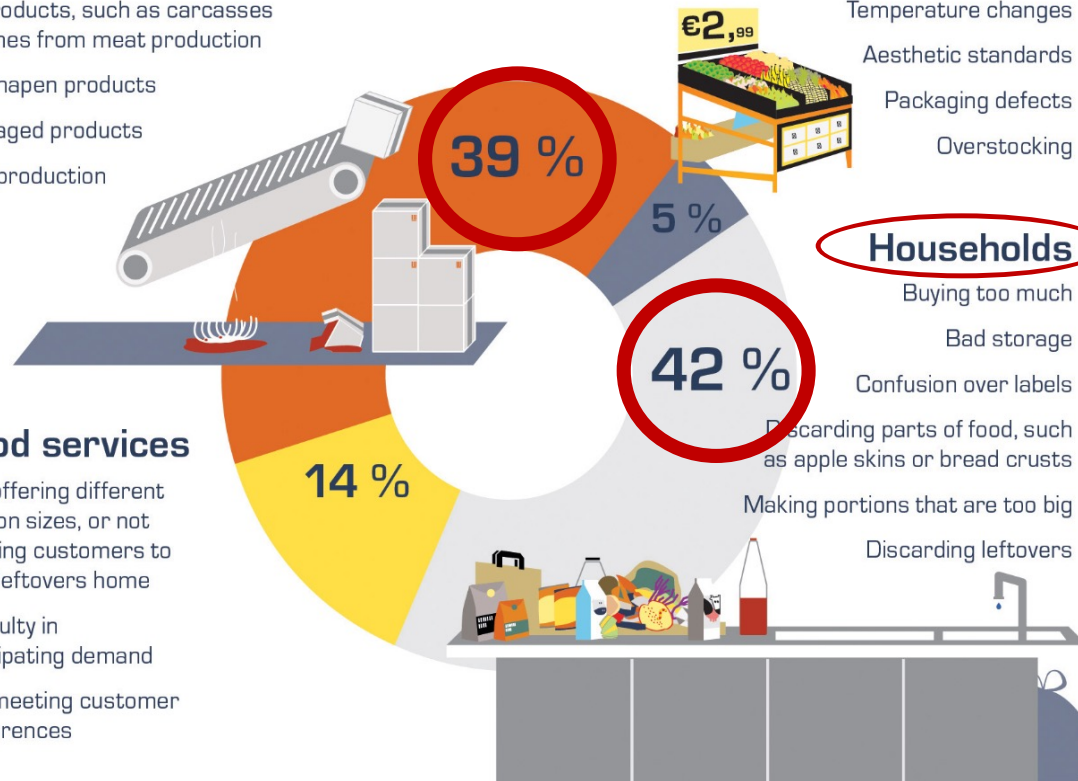
- Temperature changes
- Aesthetic standards
- Packaging defects
- Overstocking

Households

- Buying too much
- Bad storage
- Confusion over labels
- Discarding parts of food, such as apple skins or bread crusts
- Making portions that are too big
- Discarding leftovers

Food services

- Not offering different portion sizes, or not allowing customers to take leftovers home
- Difficulty in anticipating demand
- Not meeting customer preferences



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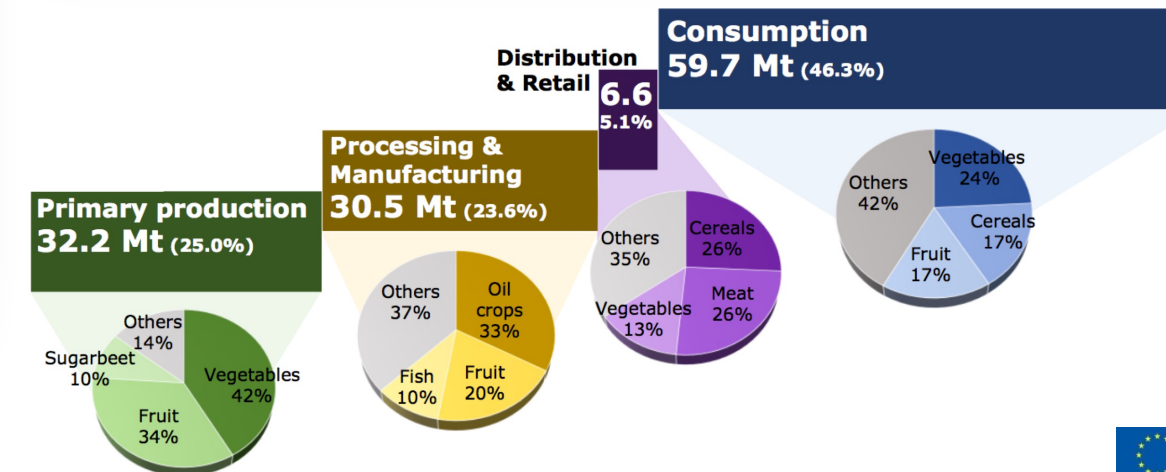
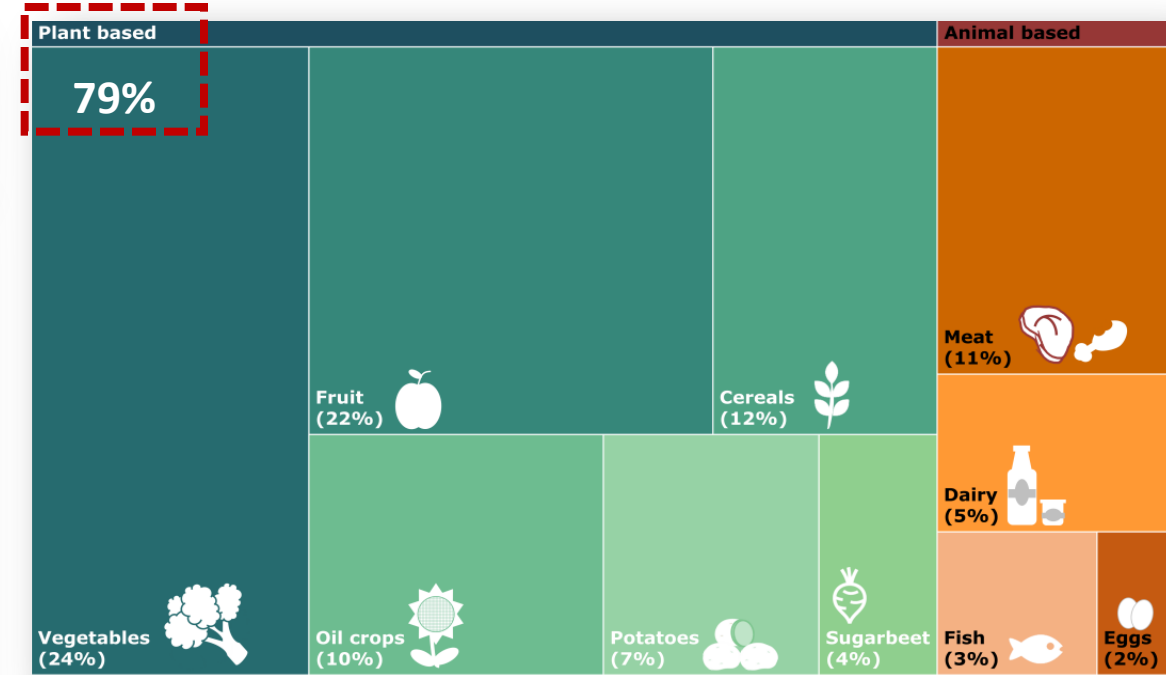
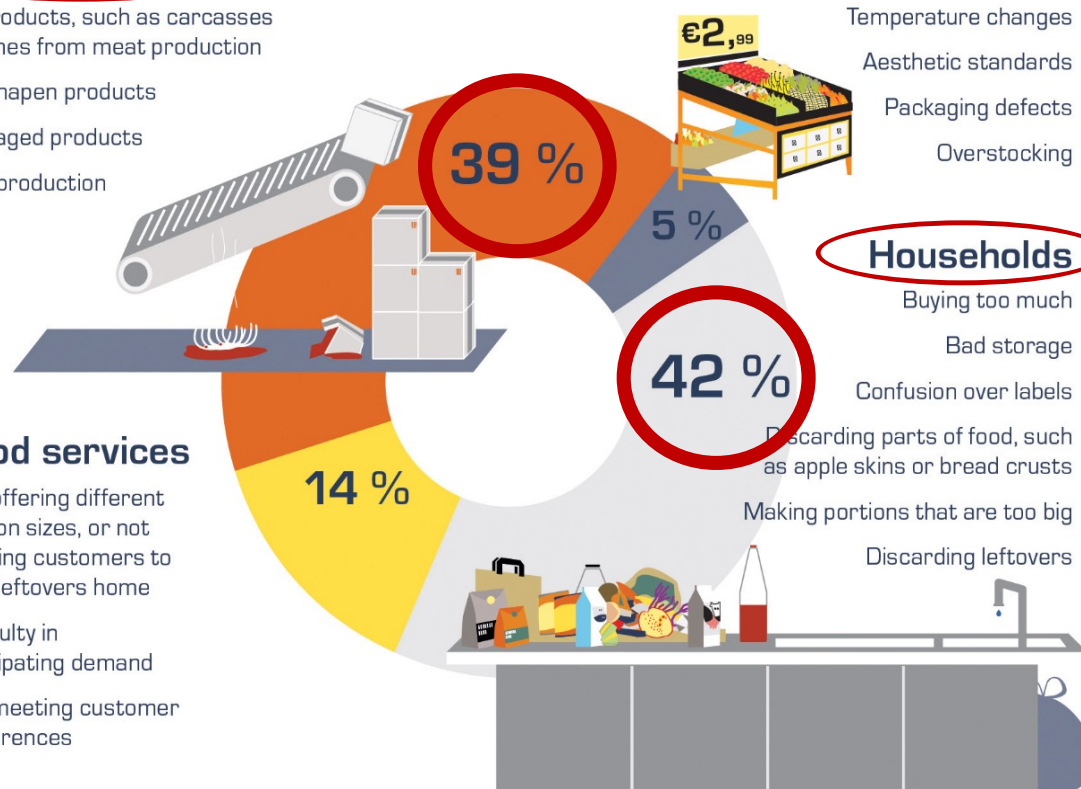
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1. BACKGROUND



How to make more progress?

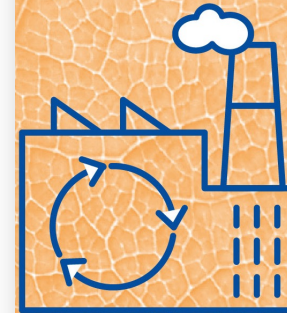
The EU and its Member States are committed to the United Nations **Sustainable Development Goals (SDG)** to **halve per capita global food waste at retail and consumer level by 2030.**

SDG INDICATOR(S) FOR TARGET 12.3



Food waste reduction

In comparison with 2020, Member States should reduce food waste at national level by 2030:



By

10%

in processing and manufacturing

By

30%

per capita jointly in retail, restaurants and food services and households.



#FoodWasteEU
#FLWDay





How are we helping the Member States reduce food waste?

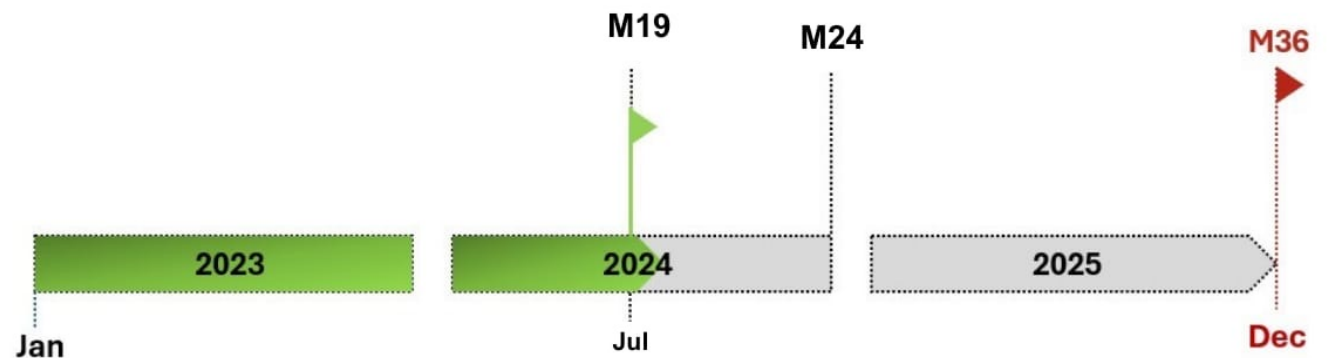
- **Sharing best practices:** EU Platform on Food Losses and Food Waste
- **Concrete tools and solutions:** best practice compendium (European Consumer Food Waste Forum)
- **EU research and innovation** (Horizon 2020 and Horizon Europe).
- **Other funding** (LIFE environmental programme, Interreg Europe, Single Market Programme)





Waste Quantification Solutions to Limit Environmental Stress

- **Call:** HORIZON-CL6-2022-FARM2FORK-01
- **Project number:** 101084222
- **Project duration:** 3 years. Starting date: 1 January 2023. End date: 31 December 2025.
- **Project Coordinator:** Universidade de Trás-os-Montes e Alto Douro (UTAD)
- **Participants:** 29 organisations from 14 countries
- **Total budget:** 5 458 233 EUR
- **Target groups:** food service stakeholders, food industries, retail, households, selected supply chains



Participants



Beneficiaries (16)



Affiliated (12)



Associated (1)



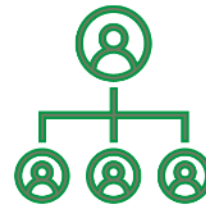
This project has received funding from the European Union's Horizon Research and Innovation Action (HORIZON-CL6-2022-FARM2FORK-01) under Grant Agreement No. 101084222.



❑ European, national, and regional policymakers, and food agencies



❑ Civil Society (organisations/associations)



❑ European, national, and regional private sector



❑ Scientific community



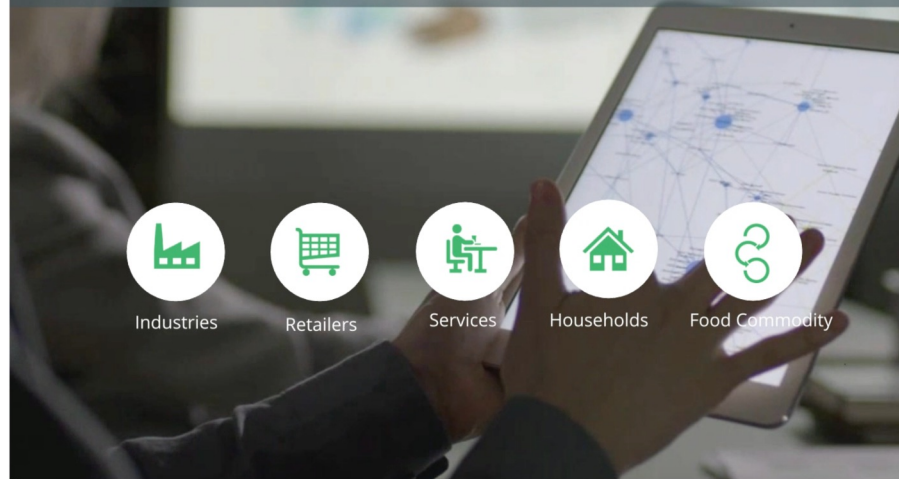
❑ General public



❑ Other research projects and initiatives



Develop a mix of tools and methodologies for FLW measurement and monitoring



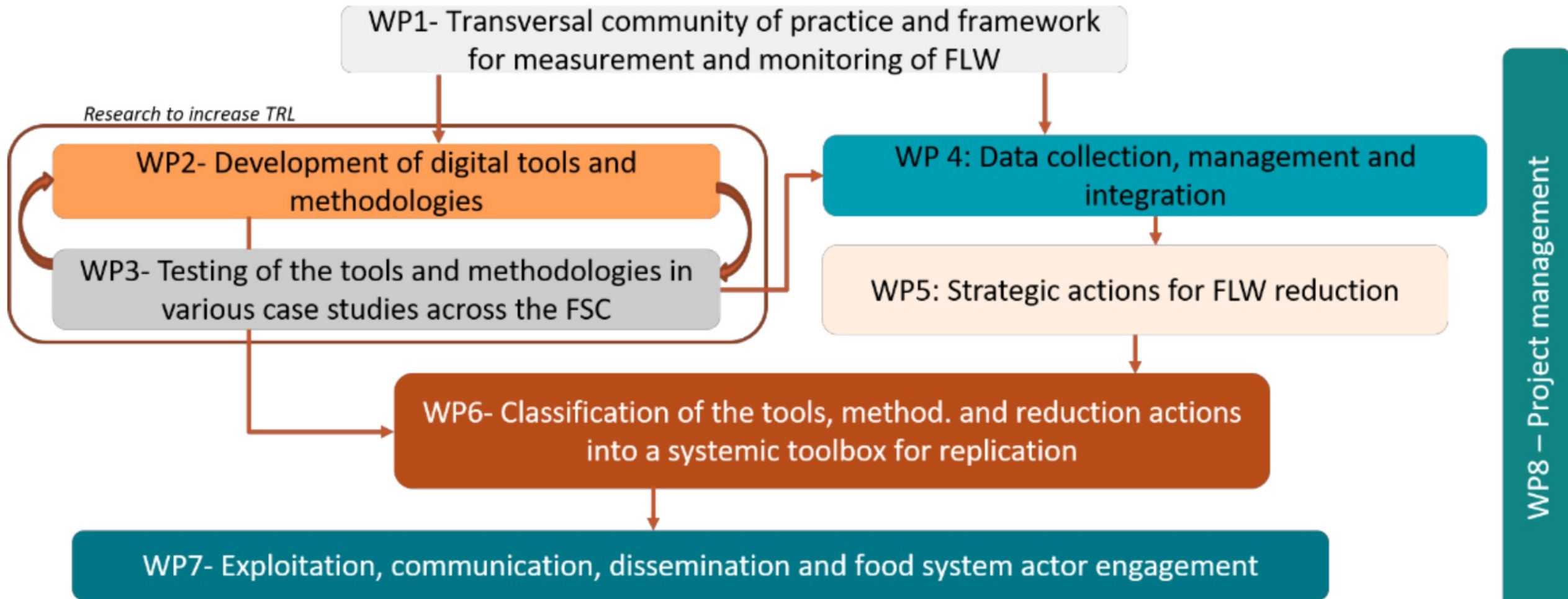
Recommend a harmonised methodological framework for FLW quantification.



Develop a decision support systemic Toolbox targeting all food value chain stakeholders.



WASTELESS will carry research activities on innovative processes and streams to valorise unavoidable FLW.





Food industries: Industrial food processing companies from different EU countries. Fruit and vegetables (PT); canned and processed vegetables (ES); pasta, olive oil, tomato, and fruit juice (IT), bakery, cured meat and dairy products (FR).



Food retailers: Local and big supermarkets from different EU countries, checking critical FW drivers such as storage conditions during transportation and at retail, damaged products dispensed, lack of clear expiration date knowledge, etc.



Food services: Restaurants, schools, universities, workplaces with in-house and contract catering food services from different EU countries will focus on critical drivers of food waste, such as over-estimated stock, lack of planning, poor preservation, and leftovers.



Households: Consumers at different households within the EU and focusing on specific food products, checking critical FW drivers such as social norms, household size, marketing practices, cooking habits and shelf life.



Selected food supply chains (FSC): Companies and corporate groups with an integrated supply chain from different EU countries. Tracking waste through all the FSC stages.





https://www.youtube.com/watch?v=uurxM_d9dKU

WP5: Strategic actions for FLW reduction

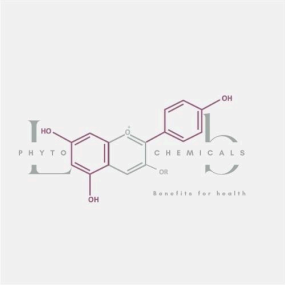
Develop solutions/strategic actions:

to fully utilise food losses and industrial wastes measured in the previous work packages

generating value from residues and waste streams that would otherwise be lost



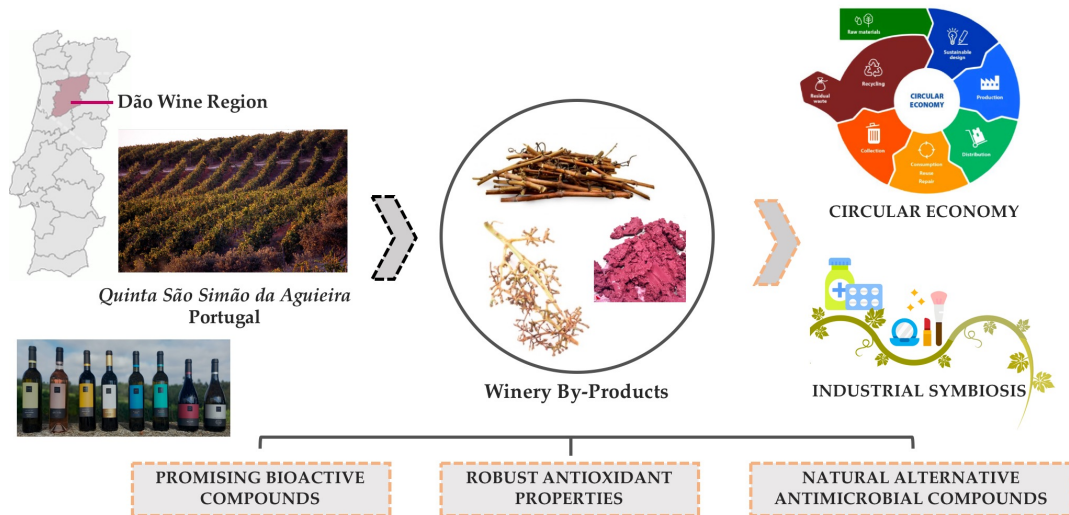
WP5: Strategic actions for FLW reduction



Article

Unveiling the Potential of Unexplored Winery By-Products from the Dão Region: Phenolic Composition, Antioxidants, and Antimicrobial Properties

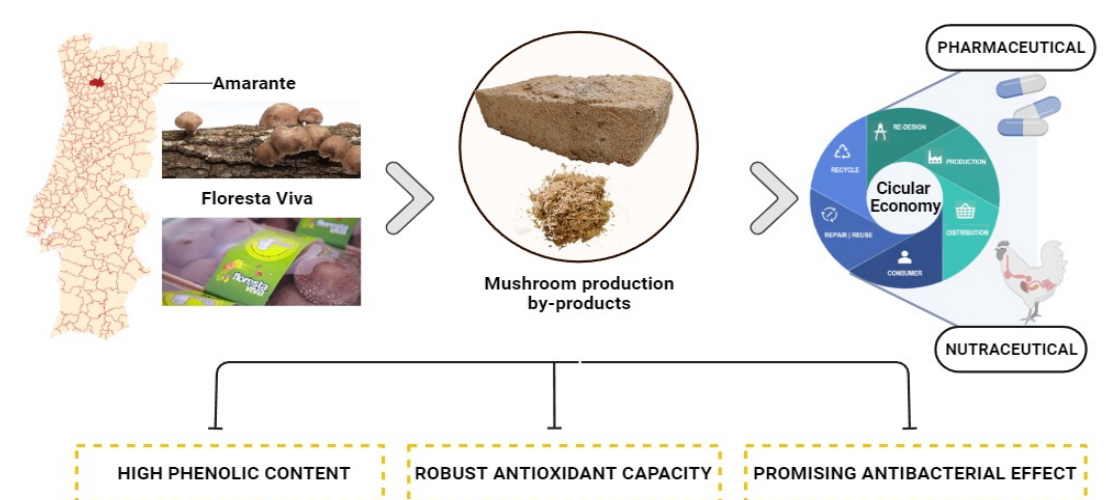
Cátia Costa ^{*}, Joana Campos, Irene Gouvinhas ^{ID}, Ana Rita Pinto, Maria José Saavedra ^{ID} and Ana Novo Barros ^{*ID}

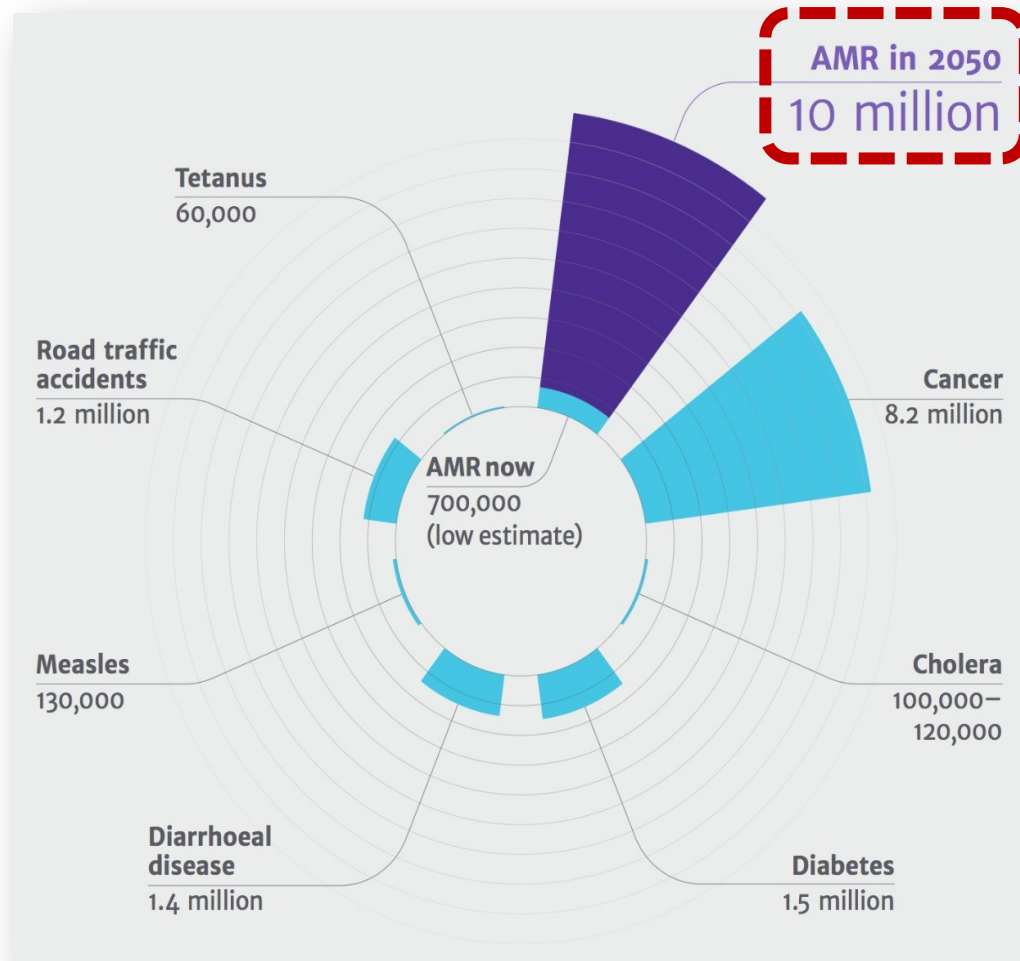


Article

Nutraceutical Potential of *Lentinula edodes*' spent mushroom substrate: A Comprehensive Study on Phenolic Composition, Antioxidant Activity, and Antibacterial Effects

Filipa Baptista^{1*}, Joana Campos¹, Valéria Silva², Ana Rita Pinto¹, Maria José Saavedra¹, Luis Mendes Ferreira¹, Miguel Rodrigues¹ and Ana Novo Barros^{1*}





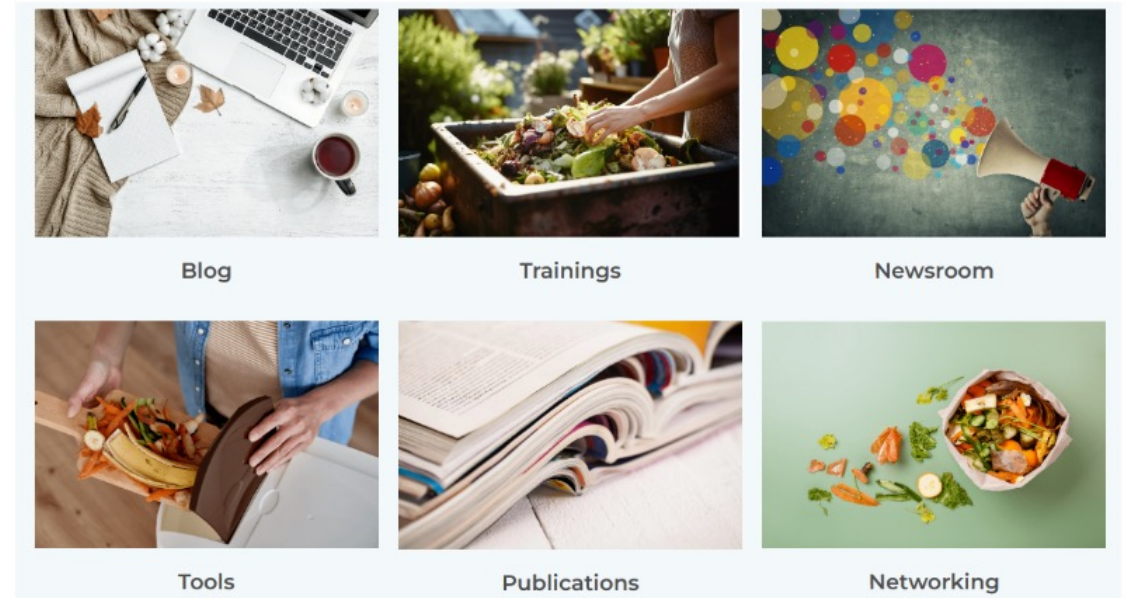


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Website



WASTELESS Community of Practice WPI



Blog

Trainings

Newsroom

Tools

Publications

Networking

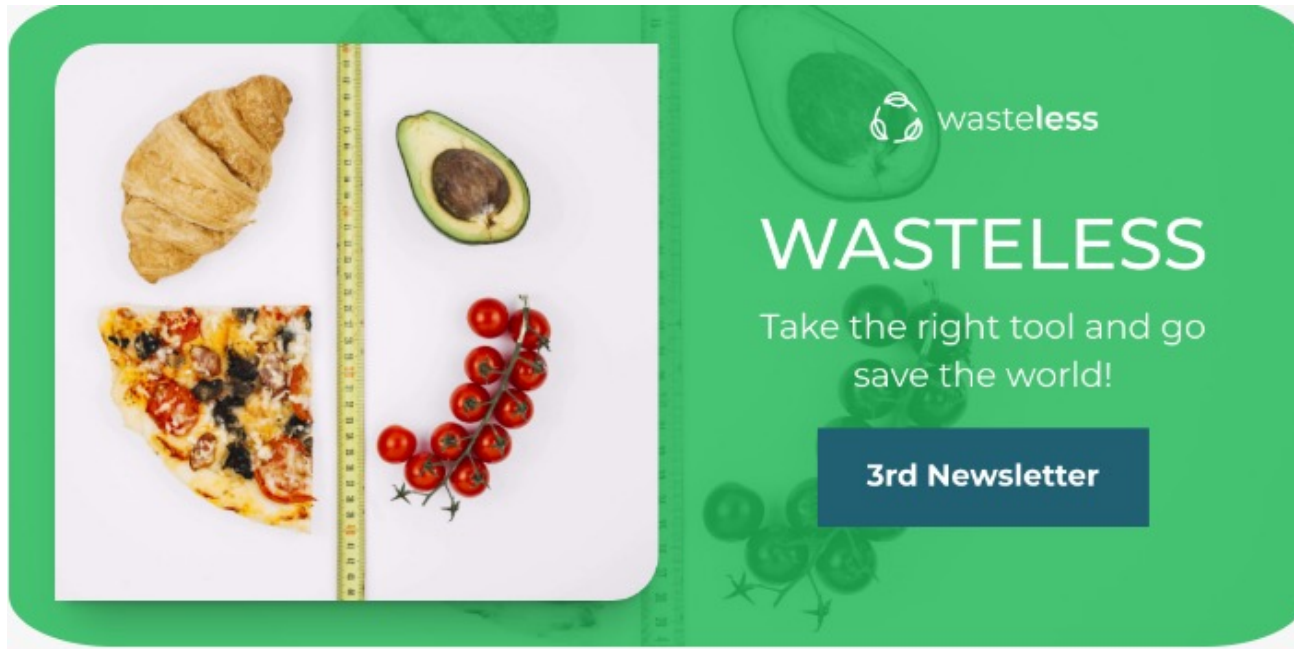


Newsletter



M6





Coordinator's update: Project updates at Month 18!



Cooperation with sister project and similar projects



CULTIVATE



CURRENT DEVELOPEMENTS IN FOOD LOSS & WASTE REDUCTION

Day 1 – 17th June 2024



09:30 Welcome by Ana Barros (WASTELESS coordinator)

Session 1 – Current policies and regulatory strategies for FLW monitoring at EU level

09:35	The actions of the Italian Observatory on Food Losses and Waste and its congruence with EU policies	Laura Rossi (CREA)
09:55	Recent developments in FLW reduction at the EU level	Antonio De Carluccio (ZeroW)
10:05	Assessing the sustainability impact of FLW prevention and reduction solutions within EU regulatory framework	Juana Maria Rivera-Lirio (TONOWASTE)
10:15	The EU's Approach to Food Loss	Daemon Ortega (SISTERS)
10:25	Quick overview on EU FL policies and frontrunner regions: current state and future challenges	Julia Tanzer & Alba Graells (FOLOU)
10:35	Round table discussion (Q&A)	Ana Barros (moderator)

CURRENT DEVELOPEMENTS IN FOOD LOSS & WASTE REDUCTION

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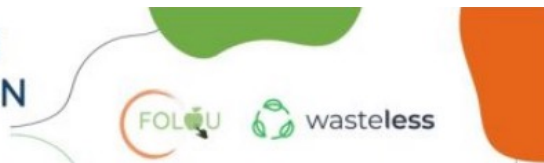


Session 2 – Digital tools and methodologies to measure FLW

11:25	Food waste measurement: a common EU methodology	Valeria De Laurentiis (JRC)
11:45	<i>Foodrus Suite: integral solution to prevent food loss and waste</i>	Ainhoa Alonso (FOODRUS)
11:55	<i>Tech-IN Waste-OUT: Open, data-driven platform for capturing and assessing FLW data throughout the supply chain</i>	Andra Tanase (ZeroW)
12:05	<i>Current development of innovative tools to measure and estimate Food Loss</i>	Wouter Maes (FOLOU)
12:15	<i>Automatic system for FW assessment at households</i>	Dejan Gradišar (WASTELESS)
12:25	Round table discussion (Q&A)	Joan Colon (moderator)

CURRENT DEVELOPEMENTS IN FOOD LOSS & WASTE REDUCTION

Day 2 - 18th June 2024



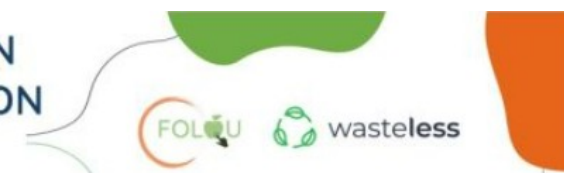
09:30 **Welcome** by Joan Colon (FOLOU coordinator)

Session 3- Innovative practices to use FLW

09:35	Creating change in Europe: initiatives tackling food loss and waste	Berta Vidal (Espigoladors)
09:55	Overview of FLW interventions identified in the CHORIZO project	Chantal den Broeder (CHORIZO)
10:05	Development of the Short Chain Platform: Regioneo	Pierre Tubiana (SISTERS)
10:15	SHARING SOLUTIONS innovation platform for FLW in Food Sharing Initiatives	Simona Herbaj (CULTIVATE)
10:25	Social innovations to prevent food loss and waste	Clara Cicatiello (LOWINFOOD)
10:35	Innovative Practices in reducing food waste in schools	Ulla Santti (FOODLOOPS)
10:45	Round table discussion (Q&A)	Joan Colon (moderator)

CURRENT DEVELOPEMENTS IN FOOD LOSS & WASTE REDUCTION

Day 2 - 18th June 2024

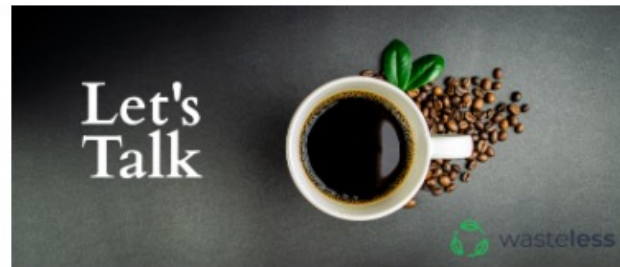


Session 4 - Valorisation strategies to reduce FLW

11:25	Valorisation of by-products: the case of olive pomace	Maria Beatriz Oliveira (FFUP)
11:45	Valorisation of grape stems as a functional ingredient in ruminant diets	Monica Gutierrez (NEWFEED)
11:55	The WASTE2FUNC project: from food waste to microbial biosurfactants and lactic acid	Esthère Goure (WASTE2FUNC)
12:05	Harnessing agrifood chain by-products for sustainable innovation in food, cosmetic and pharmaceutical sectors	Miguel Rodrigues (WASTELESS)
12:15	Potential upcycling of waste from the agrifood chain as soil conditioner and/or fertilizer in agriculture	David Fanguero (WASTELESS)
12:25	Round table discussion (Q&A)	Ana Barros (moderator)

Join The WASTELESS Monthly Café Talks About Food Loss And Waste

March 27, 2024



By: Luminita
Ciolacu and Sofia
Reis
(alphabetically)

From: 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 19th, 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 or sofia.reis@iseki-food.net



EXTERNAL EXPERT ADVISORY BOARD

Nastasia Belc – Director General of The National R&D Institute for Food Bioresources, IBA, Bucharest, Romania



Charis M. Galanakis

Director of Food Waste Recovery Group, ISEKI Food Association, Vienna, Austria



Deolinda Silva – Executive Director of PortugalFoods, Portugal



Patrizia Perego – Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genoa, Genova, Italy



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Nathalie Gontard – Research Director at INRAE
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Joan Colon Jorda – FOLU Coordinator







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