



## The NEWFEED project

part of PRIMA programme,  
supported and funded under EU Horizon 2020 Framework  
(Turn food industry by-products into secondary feedstuffs  
via circular-economy schemes)

### 3<sup>rd</sup> NEWSLETTER July 2024

The **objective of the project** is the development and adoption of alternative animal feeds setting up a circular economy approach in the livestock production by turning the by-products of the food industry into high value secondary feedstuff for animal feed. The project **also focusses** on the increase of the sustainability of the Mediterranean livestock through the valorisation of local food industry by-products that will lead to reduced environmental impact and costs (winery, orange juice, and olive oil food industries by-products, in the South and East of the Mediterranean: Spain, Greece, and Egypt).

### The NEWFEED partnership

The project partnership involves 14 partners  
(R&D Institutes, Universities, Federations) from 4 countries (Egypt, Greece, Spain and Turkey).



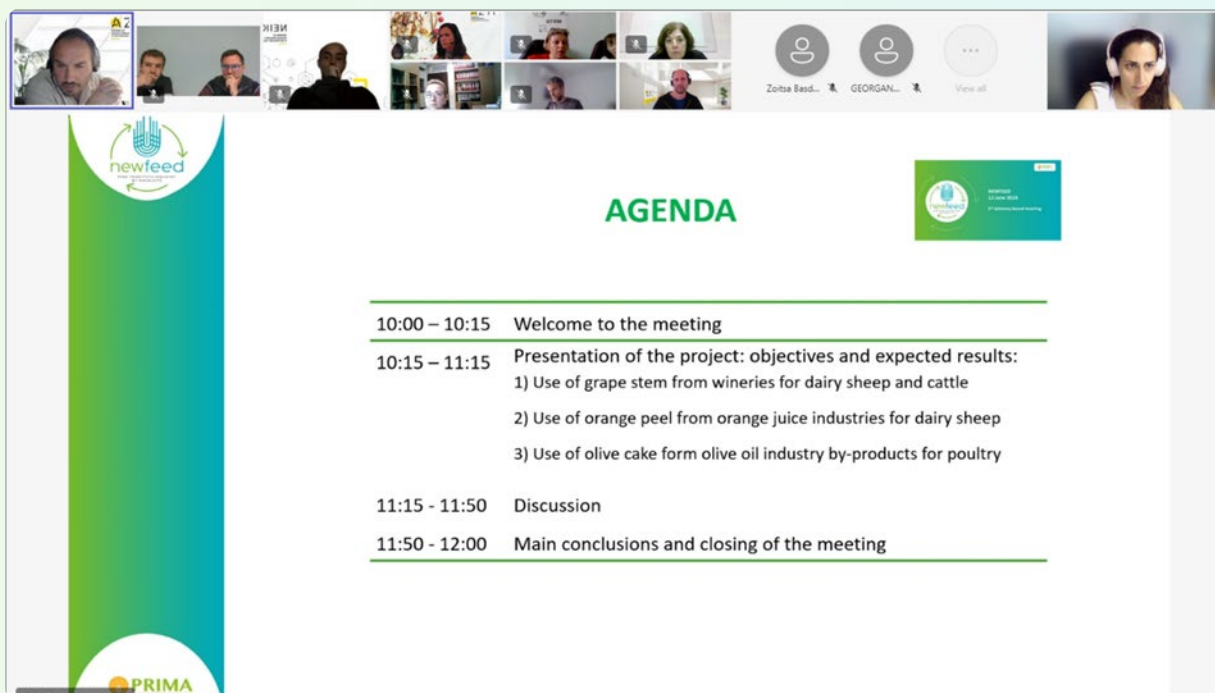
# The Advisory Board

NEWFEED Advisory Board consists of 2-3 representative members of the main sectors or stakeholders involved in the recovery and exploitation of food by-products or potentially affected by the project's results:

- Food companies
- Logistic & valorisation companies
- Feed producers
- Livestock
- Public authorities and Policymakers
- Research Organizations and Universities
- General public

## Objectives

- **to analyse and validate** the main objectives of the 3 value chains.
- **to get the stakeholders feedback** about Exploitation Strategy and encouraged them to participate in the new business activity.
- **to revise the Exploitation strategies** and update including the new specific activities to fill-up stakeholder requirements.



The screenshot shows a Zoom meeting interface. At the top, there is a grid of 11 participants. Below the grid, there are icons for mute, video, and chat. The main content area displays a slide titled "AGENDA" with the following schedule:

Time	Activity
10:00 – 10:15	Welcome to the meeting
10:15 – 11:15	Presentation of the project: objectives and expected results: 1) Use of grape stem from wineries for dairy sheep and cattle 2) Use of orange peel from orange juice industries for dairy sheep 3) Use of olive cake form olive oil industry by-products for poultry
11:15 - 11:50	Discussion
11:50 - 12:00	Main conclusions and closing of the meeting

The slide also features the NEWFEED logo on the left and the PRIMA logo at the bottom left. A small thumbnail of the slide is visible in the top right corner of the meeting area.

The **3<sup>rd</sup> and final Advisory board meeting** of the PRIMA NEWFEED project took place on June 12<sup>th</sup>, 2024, where 11 members of 10 companies, academic/research institutes and public authorities participated.

# PROGRESS OF WP3 CASE STUDY 2: Yoghurt production procedure and sensory evaluation

Case study 2 is focusing on the valorization of orange peel-based as a second-generation feedstuff in ruminants (Greece). During the 3<sup>rd</sup> year of the project, the impact of supplementing ewes' diet with dried ingredients produced from orange peels on the sensory characteristics of the yoghurts was investigated.

For the production procedure of the yoghurts the milk was collected from ELGO-DIMITRA in Giannitsa, Greece and transported under refrigerated conditions to the Department of Agriculture in University of Western Macedonia, Florina. Upon arrival at the laboratory, the milk samples for the three treatments (control, enzymatically hydrolyzed orange peels, and non-enzymatically hydrolyzed orange peels) were filtered to remove large debris. The examination for the presence of antibiotics, total solids content, and acidity was followed, to evaluate milk's suitability for yoghurt production which was carried out within 30 hours after milking.

The yoghurt samples were prepared and stored in the refrigerator for 21 days. On day 7, the samples were microbiologically tested to ensure they were safe for consumption and subjected to sensory evaluation. The evaluation was completed by a panel of 9 students who consumed sheep's yoghurt frequently. Participants were asked to rate the overall appearance, color, aroma, aroma intensity, taste intensity, taste, acidity, texture (mouthfeel and spoon), aftertaste and overall acceptability of the yoghurt using a 7-point hedonic scale. Samples were labeled with a 3-digit random number, and panelists examined the samples in random order. The study was approved by the Ethics Committee of the University of Western Macedonia for studies involving humans. It was observed that all examined sensory traits exceeded the acceptability limit (score = 4) in the samples from all three treatments with no significant differences between treatments. In conclusion, **supplementation of ewes' diet with dried orange peel**, whether processed or unprocessed, **did not adversely affect yogurt's sensory characteristics**.

## NETWORKING:

### WASTELESS project - joint webinar

CURRENT DEVELOPMENTS IN FOOD LOSS & WASTE REDUCTION



wasteless

On June 17<sup>th</sup> and 18<sup>th</sup>, [WASTELESS](#) (Waste Quantification solutions to limit environmental stress) hosted together with the sister project FOLOU a dynamic online free webinar: "**Current developments in Food Loss & Waste reduction**". The webinar brought together representatives of several EU projects, **including NewFeed project**, in the field of food losses and waste to discuss the current status and latest developments. It was divided into 4 sessions, each with an invited keynote speaker followed by the EU projects sharing their goals, achievements and valuable insights from their work. More than 300 people registered for the webinar and attended the two days of the different sessions. The sessions of the webinar are all available on the WASTELESS YouTube channel.

Session 1 - [Current policies and regulatory strategies for FLW monitoring at EU level](#)

Session 2 - [Digital tools and methodologies to measure FLW](#)

Session 3 - [Innovative practices to use FLW](#)

Session 4 - [Valorisation strategies to reduce FLW](#)

WASTELESS coordinator about the last session on valorisation wrote "*Valorising by-products involves recognizing their potential value rather than discarding them as waste ..... By integrating by-products back into the production cycle, industries can achieve higher resource efficiency..... Industrial symbiosis is a concept where waste or by-products from one industry become the raw materials for another, creating a network of resource exchanges that benefit all parties involved.*" In "[The Crucial Role of By-Product Valorisation in Circular Economy and Industrial Symbiosis](#)" by Ana Barros, UTAD, June 20, 2024.

WASTELESS social networks: [wastelesseu.com](http://wastelesseu.com), [X](#) and [LinkedIn](#).

# DEMONSTRATION WORKSHOPS: exploring Newfeed ingredients

In line with NewFeed commitment to knowledge transfer and industry engagement, Project Demonstration Workshops were launched in March 2024. Stakeholders across the food industry, including wineries, orange juice, and olive oil producers, as well as livestock feed manufacturers and farmers from the Mediterranean region are invited to

participate and explore the transformative potential of our innovations and together to foster cross-border knowledge exchange. The Demonstration Workshops are scheduled to take place from March 2024 to June 2025, with sessions planned in each of the case study regions (Spain, Greece, and Egypt), alongside a Mediterranean-level workshop.

THESE WORKSHOPS SERVE AS PLATFORMS FOR INTERACTIVE EXPLORATION, ALLOWING PARTICIPANTS TO DIVE INTO THE INTRICACIES OF NEWFEED INGREDIENTS AND THEIR APPLICATIONS.

On March 21<sup>st</sup>, the **Mediterranean Demonstration Workshop** took place in Spain, as part of the World Rural Forum, hosted by AZTI, NEIKER, and UAGA. This workshop brought together a diverse group of participants, including representatives from government agencies, livestock and agricultural organizations, international bodies such as FAO and IFAD, National Committees for Family Farming, rural development associations, NGOs, cooperatives, and research centers.

Participants delved into crucial topics related to sustainable livestock farming, focusing on the NewFeed project's findings and advancements. Discussions explored the inclusion rates of innovative ingredients, their replicability across various livestock species, and the maturity level of the developed solutions (Technology Readiness Level – TRL). Attendees also examined opportunities for international cooperation to extend the use of new feed ingredients derived from olive cake, grape stems, and orange peels globally. Profitability, environmental enhancements, and ensuring a sustainable supply of raw materials for animal feed were also key topics of discussion. Emphasizing the finite nature of natural resources, the workshop highlighted the importance of finding novel, sustainable raw materials for feed production. The use of food by-products, aligned with circular economy principles, was presented as a practical solution for achieving long-term sustainability in livestock farming.

The event served as a pivotal moment in advancing the NewFeed project's objectives and fostering collaboration

among stakeholders committed to driving sustainability within the livestock sector and the food industry supply chain in general. As the project progresses, such workshops will continue to play a crucial role in facilitating knowledge exchange, innovation, and collective action towards a more sustainable future.

On June 17<sup>th</sup>, the **Greek Demonstration Workshop** took place in Greece, organized by ELGO-DIMITRA, UOWM and NTUA. The Workshop was held at ELGO-DIMITRA's facilities in the Campus of the Research Institute of Animal Science in Paralimni in Giannitsa, Greece. The event drew significant attention and participation from diverse local stakeholders, mainly from research organizations and universities, milk and dairy product quality control laboratories, livestock feedstuff industry and sheep and dairy cattle farmers.

Discussions during the workshop focused on the availability throughout the year of the raw material (orange peel), the cost of transfer of the final product to the farms and the already established practice of local farmers near juice industries collecting raw orange peels and feeding them to their livestock without any processing or quality control.

The main points highlighted during the demonstration workshop included: the possibility of introducing the methodology developed within NewFeed project to other types of by-products, targeted to various species of animals and producing tailor-made nutritional solutions for organic farms etc.



Mediterranean Demonstration Workshop



Greek Demonstration Workshop