Project code: 2024-1-RO01-KA220-HED-000246776

REPORT ON THE MULTIPLIER EVENT

”Agro food chain byproducts, nutritional composition, technological issues and sustainable enhancement”

organised in the project

”ENHANCEMENT OF AGRO FOOD CHAIN BYPRODUCTS THROUGH INNOVATIVE AND SUSTAINABLE METHODS”

During **11–12 March 2026**, the Multiplier Event **E1** was successfully organized by the **Romanian Employers' Association of Milling, Bakery and Flour-Based Products Industries (ROMPAN)** at the Magnum Hall of Hotel International in Sinaia. The event brought together 56 participants in the first day and 55 participants in the second day, including specialists from the food industry, representatives of academia, distributors, traders, and ROMPAN members, creating a dynamic environment for professional dialogue and exchange of expertise.

The event was designed as a comprehensive dissemination and training activity, aiming to promote the project results while addressing a highly relevant topic: the valorisation of agro-food chain byproducts, with a particular focus on their nutritional composition, technological challenges, and sustainable improvement solutions. Anchored in the principles of the circular economy, the event encouraged participants to explore innovative pathways for transforming byproducts into valuable resources.

The main aim of the multiplier event was to disseminate the knowledge and tools developed within the project and to support stakeholders in understanding and applying innovative and sustainable approaches to agro-food byproducts.

More specifically, the event pursued the following objectives:

- to present the structure and content of the developed course;
- to highlight the environmental and economic importance of agro-food byproducts;
- to analyse their nutritional and bioactive composition;
- to address technological limitations and propose practical solutions for valorisation;
- to stimulate dialogue and collect feedback from specialists regarding the applicability of the project results.

Co-funded by the European Union

Project code: 2024-1-RO01-KA220-HED-000246776

Day 1 – 11 March 2026

The first day of the event started at 15:00 with the registration of participants, followed by the opening session, during which the project and its objectives were introduced.

The programme continued with a comprehensive presentation of the course, outlining its main objectives and emphasizing the growing importance of agro-food chain byproducts at European level. Particular attention was given to their environmental impact and the need to align valorisation strategies with both national and European legislation.

Building on this introduction, the next session focused on the nutritional and chemical composition of agro-food byproducts. Participants were presented with detailed information regarding the sources of generation, the associated environmental burden, and the presence of valuable bioactive compounds, such as polyphenols, dietary fibres, and antioxidants. This session provided a scientific foundation for understanding the potential of these materials.

The following part of the programme addressed technological challenges and valorisation strategies, structured in two complementary sessions. The first part introduced participants to key processing techniques such as fermentation and extrusion, while also highlighting the technological limitations associated with the integration of byproducts into food systems.

After a coffee break, the second part expanded the discussion towards innovative and sustainable technologies, including 3D food printing and advanced extraction methods such as enzyme-assisted extraction, ultrasound, pulsed electric fields (PEF), and sustainable drying techniques. These approaches were presented as viable solutions for improving efficiency and preserving valuable compounds.

The afternoon sessions continued with a detailed analysis of the impact of processing on bioactive compounds, also structured in two parts. The first part explored how fermentation influences phenolic content and how extrusion affects fibre functionality, while the second part focused on the effects of ultrasound and enzymatic extraction on antioxidant production, as well as the stability of bioactive compounds during processing.

The first day concluded with a questions and answers session, which encouraged active participation and discussion, followed by a networking dinner, providing additional opportunities for informal exchanges and collaboration.

Co-funded by
the European Union

Project code: 2024-1-RO01-KA220-HED-000246776

Day 2 – 12 March 2026

The second day began at 07:30 with the registration of participants, followed by a short recap of the first day and an introduction to the upcoming sessions.

The morning programme focused on the essential topic of bioaccessibility and bioavailability of bioactive compounds, presented in two consecutive sessions. The first session introduced in vitro digestion models and clarified the conceptual differences between bioaccessibility and bioavailability, while the second session explored in vivo approaches and practical examples, helping participants better understand how these compounds behave within the human body.

After a coffee break, the focus shifted towards the development of safe functional food products, again structured in two parts. The first session highlighted the use of functional ingredients derived from olives and coffee, as well as the development of citrus-enriched products. The second session addressed nutraceutical applications based on wine and pomace, along with strategies for enriching cereal fibres, demonstrating the practical potential of agro-food byproducts in product innovation.

The programme continued with a session dedicated to practical applications and case studies, where participants were presented with real examples from the industry. A notable focus was placed on the use of brewer's spent grains in bakery products, illustrating how byproducts can be successfully integrated into commercial applications.

In the final part of the event, participants engaged in a comprehensive discussion session, followed by the presentation of the main conclusions and the official closing of the event. The multiplier event concluded with a networking lunch, allowing participants to consolidate connections and exchange final impressions.

The course handout presented during the event reflected the structure of the agenda and covered all major thematic areas, including:

- introduction to agro-food chain byproducts and their environmental implications;
- nutritional and chemical composition;
- technological challenges and innovative valorisation methods;
- influence of processing on bioactive compounds;
- bioaccessibility and bioavailability;
- development of safe and functional food products.

Co-funded by
the European Union

The event was fully organized by ROMPAN, with all logistical aspects and materials prepared by the project's technical team. Invitations were sent approximately one month in advance, ensuring strong participation from relevant stakeholders.

The feedback received from participants was highly positive, reflecting both the scientific relevance of the topics addressed and the clarity of the presentations. Participants particularly appreciated the balance between theoretical knowledge and practical applications, as well as the opportunity to engage in discussions with experts from different sectors.

The Multiplier Event successfully demonstrated the importance of addressing agro-food chain byproducts within the framework of sustainability and circular economy. By combining scientific insights with practical solutions, the event contributed to increasing awareness and enhancing the capacity of stakeholders to implement innovative approaches in their professional activities.

Furthermore, the event facilitated knowledge transfer, interdisciplinary collaboration, and the exchange of best practices, strengthening the connection between academia and industry.

Overall, the multiplier event had a significant positive impact, supporting the promotion of sustainable innovation in the agro-food sector and reinforcing the visibility and relevance of the project at both national and European levels.

Project manager
VOICA DANIELA