

NEWFEED

Turn Food Industry By-products into Secondary Feedstuffs via Circular-Economy Schemes

Grant Agreement number: 2013, Call 2020 Section 1 Farming IA

D1.3 Advisory Board Meetings Minutes

Deliverable number D1.3

Work Package WP1	Alternative feed value chains appraisal through a multi-actor approach
Task 1.2	Advisory Board
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Foreword

The work described in this report was developed under the project NEWFEED: Turn Food Industry By-products into Secondary Feedstuffs via Circular-Economy Schemes (Grant Agreement number: 2013/ Call 2020 Section 1 Farming IA). If you wish any other information related to this report or the NEWFEED project please visit the project web-site (www.newfeed-prima.eu) or contact:

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	



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Introduction

An Advisory Board acting as a knowledge sharing round table has been set to analyse and validate the project objectives and results and the hurdles and bottlenecks of the whole value chain (raw material availability; valorisation strategy; feed requirements; consumer awareness). It 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: 1) Food companies 2) Logistic & valorisation companies 3) Feed producers 4) Livestock 5) Public authorities and Policymakers 6) Research Organizations and Universities 7) General public.

- **Food companies:** they expose the actual problem to be solved and how they can implement or not the solutions proposed inside the project or improve them by adapting to their specifically needs. They could also give their opinion in case of some pre-treatments are needed in their facilities.
- **Logistic & valorisation companies:** This sector is one the main beneficiaries of the project results because they will be able to lead the commercial exploitation of the new meals produced in other replicable regions. Expertise in logistic and/or food waste treatments, food by-product valorisation, meal producer will ensure that the solutions adopted in this project are feasible and can be carried out in other treatment handling, processing or how the new product can be commercialized. Also, the conditions to ensure the economic feasibility of the process can be discussed (volume of product, range of performance, etc).
- **Feed producers:** are the final users of the produced and validated meals. They will help the consortium on the requirements needed to include new ingredients in their formulations, food security specific regulations, economic issues, as well as the conditions that the new processed by-product must to satisfy to ensure a correct use.
- **Livestock:** They give the point of view of the end consumers of animal feeds and they could help in the future success of the project by demanding the implementation of their results.
- **Public authorities and Policymakers:** Both National and European public authorities and policymakers will give the institutional opinion about the suitability of the Valorisation scheme from the legal point of view and how they can promote its implementation each in its field of application: available economical instruments, etc.
- **Research Organizations:** The solution obtained in this project, based on the reuse of spent coffee ground by-product, serve as an example to investigate other organic wastes that can be reused for animal feed. In addition, they can compare similar studies with project's results with the aim of joining forces to achieve project goal.
- **General public:** They participate by giving their opinion. Consumer associations at national and European level will be contacted.

This Advisory Board will meet several times during the project lifetime:

- **1st Advisory Board meeting (M6, December 15th 2021)** was used to analyse and validate the objectives and expected results of the project. The project scope and aims were described in detail to Advisory Board Members.
- **2nd Advisory Board meeting (M20, actual date February 15th 2023)** whose purpose is to validate the proposed solution before the scaling up of the Valorisation strategies and Validation of alternative feeds
- **3rd Advisory Board meeting (M36)** will focus on getting the stakeholders feedback about Exploitation Strategy and encouraged them to participate in the new business activity.

Agenda and Attendance

Meeting agenda:

Wednesday 15th February 2023

Time	Activity	Speakers
10:00 – 10:10	Welcome to the meeting and objectives and expected results	AZTI
10:10 – 10:40	Presentation of proposed solutions: 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.	AZTI NTUA HUSD
10:40 - 11:20	Discussion	Advisory board members
11:20 - 11:30	Main conclusions and closing of the meeting	AZTI

List of Stakeholders who attended the meeting:

Participant	Sector	Region
1	Livestock	Spain
2	Valorisation	Greece
3	Valorisation	Greece
4	Public authorities	Spain
5	Research	Spain
6	Feed	Belgium
7	Food Industry	Greece
8	Livestock	Spain
9	Public authorities	Spain
10	Feed	Spain
11	Feed	Europe
12	Feed	Europe
13	Public authorities	Turkey
14	Public authorities	Spain

15	Livestock	Greece
16	Researcher Livestock	Greece
17	Feed	Egypt
18	Research	Egypt
19	Research	Egypt

Gender balance of the Advisory Board:

Gender	Number	Percentage
Women	<u>5</u>	<u>26.3%</u>
Men	<u>14</u>	<u>73.7%</u>

List of members of the consortium who attended the meeting:

Company	Region
UAGA	Spain
AZTI	Spain
AZTI	Spain
AZTI	Spain
AZTI	Spain
Neiker	Spain
RIERA NADEU S.A.	Spain
NTUA	Greece
NTUA	Greece
HAO-Demeter	Greece
UOWM	Greece
SVET	Greece
SVET	Greece
HU	Egypt

HU	Egypt
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Meeting Minutes

The meeting begins at 10:00 with the **welcome of AZTI** to the 2nd Advisory board meeting of the PRIMA NEWFEED project and thanks the attendees for their participation.

At 10:05, **AZTI** makes a brief presentation of the projects' objectives and expected results with a special emphasis on:

- *Advisory board expectation*
- *Project partnership*
- *The overall objective of the project, budget and project duration*
- *The main objectives of the 3 value chains*
- *Multi actor approach strategy*
- *Technical aspects*
- *Main Challenges & Implementation strategy*

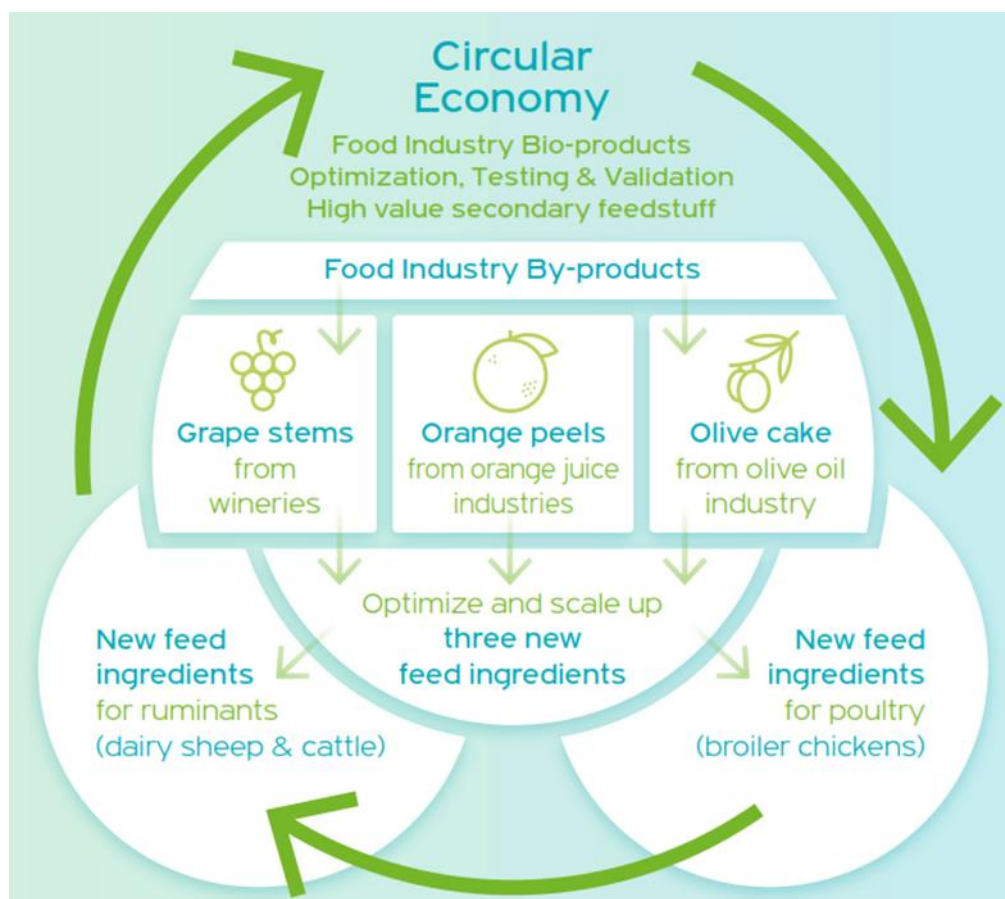


FIGURE 1: GENERAL SCHEME OF PRIMA NEWFEED PROJECT

At 10:15 **AZTI** asks to each case study leader to present the proposed solutions in each case study.

At 10:15 **AZTI** presents the first case study: grape stem-based ingredients for dairy sheep and cattle. The presentation addresses the following points:

- *Case study members and their role in the project*
- *Sector situation and potential use of grape stems*
- *Limitations and proposed solution*
- *Optimization of the hydrolysis processes*

- *Scale up of the prototype production*
- *Feed efficiency trials*

At 10:25 **NTUA** presents the second case study: orange peel-based ingredients for dairy sheep. The presentation addresses the following points:

- *Case study members and their role in the project*
- *Orange juice sector and by-products production*
- *Limitations and proposed solution*
- *Optimization of the saccharification and fermentation processes*
- *Process yields and mass balance*
- *Composition of ingredients and animal diets*
- *Feed efficiency trials*
- *Sensory analysis*

At 10:35 **HUSD** presents the third case study: Olive cake-based ingredients for Poultry. The presentation addresses the following points:

- *Case study members and their role in the project*
- *Sector situation and limitations of olive cake use*
- *Proposed solutions*
- *Composition of ingredients*
- *Feed efficiency trials*

At 10:45 **AZTI** asks to consortium participants to make a brief presentation indicating: Name; Company and their participation in the project. Then, he asks Advisory board member to make a brief presentation indicating: Name; Company; Sector they represent and their Interest in the project.

At 10:50, **AZTI** launches **a round of questions** and moderate **a round table** in which all participants discuss about the main important challenges of the project.

The main important questions-suggestion-doubts of the meeting are:

- **Feed sector participant**, expert in animal nutrition, asks about the profitability of the processes and in particular about the challenge of reducing drying costs in the project.
 - **RIERA NADEU S.A.** answers that that energy prices have risen considerably in the last year due to the crisis in Ukraine and that this makes it difficult to obtain an economically viable process and that, therefore, more time must be devoted to developing more efficient drying processes than the current ones. In addition, he adds that the use of other non-traditional energy sources, such as solar energy or biomass, must be considered in order to make drying process more efficient.
 - **AZTI** comments that they are considering the option of using part of the by-products to produce biomass pellets to reduce the energy costs associated with drying the ingredients.
 - **NTUA** also adds that in the scaling process of case study 2 they have used a biomass drier and that they will consider it within the economic analysis of the process costs.
 - **HUSD** adds that in the case study 3 they have used a solar drier in order to reduce costs and that they have been able to successfully dry 1.5 tons of by-product in an open area.
- **Dairy industry participant** comments his concern about certain contaminants that could be presented in the processed raw materials such as pesticides and the fact that this may somehow end up in the final product.

- **AZTI** answers that we must analyse the requirements in animal feeding and analyse all those contaminants that could be presents in the prototypes coming from the unprocessed raw materials.
 - Related to the topic, **animal nutrition expert** also adds the need to use both food grade enzymes and chemicals for the processing of raw materials.
 - **AZTI** answers that we have taken it into account.
- **A feed legal expert** apologizes because he cannot participate in the discussion but requests, if possible, the sending of the material since they are very interested in the possible use of by-products in animal feed.
 - **Feed industry association** asks about the supplier's role in the project. She wonders whether the supplier currently receives any economic compensation for giving it for another application, whether there is competition in the sector to collect the by-product or whether it is being used for the production of pellets for energy. She also asks what we think their preference is, whether to value it or pour it directly into the fields.
 - **AZTI** replies that the role of the supplier in the business model has yet to be defined. It is important to ensure the supply of the raw material and it is necessary to determine whether the suppliers want to participate in the new solution as investors or simply as suppliers. In the case of grape stems, in many cases, they are currently thrown in the field with the negative environmental impact that this entails, therefore, we must not only consider an economic benefit, but also a social and environmental benefit.
 - **Feed industry association** asks to please consider the economic effect on drying and to also consider the option of obtaining pellets for energy from part of the by-products to compare both options.
 - **Feed nutrition expert** asks to **HUSD** whether adding herbs to the ingredients will not raise the price of the ingredients too much and therefore make this option unfeasible.
 - **HUSD** answers that his strategy in adding herbs is to have a positive impact on the health of the animals, thus reducing the use of antibiotics and therefore the production costs.
 - **AZTI** asks feed producers if they believe that hydrolysis and fermentation processes could be alternatives of interest to the sector.
 - **Feed nutrition expert** replies that he finds alternatives of interest as long as they can improve the value of ingredients (such as on palatability) but this improvement must be validated in the animal tests.
 - **AZTI** comments that sometimes they tend to prefer unprocessed ones due to the increased cost of the pre-processing step.
 - **RIERA NADEU S.A.** asks about the microbiological and contamination risks associated with solar open drying.
 - **HUSD** answers that they have not had any contamination problems.
 - **AZTI** asks the public authorities what steps we must follow to be able to commercialize these new ingredients developed in the project in the current market of raw materials for animal feed.
 - **Participant from the Public authority** comments on the need to first register the activity with the public authorities, where they will analyse the specific case and the

requirements and give you a registration number. He comments that they request flow charts, plans, facilities... where this activity is going to be carried out.

The second step focuses on the compliance with all the legal aspects related to labelling, undesirable substances... that must be fulfilled in order to include these new products on the market. He stresses the need to obtain a product in accordance with the legislation on animal feed. He also points out that being ingredients of plant origin is easier than if they were ingredients of animal origin and applies specific legislation.

- **AZTI** asks about the next steps for the other case studies (Greece and Egypt).
 - **Participant from the Public authority** answers that in Greece it is governed by the same legislation at they are located inside the European Community but not in Egypt.
- **AZTI** asks him about whether the by-products we deal with are considered waste and whether we should apply for end-of-waste status.
 - **Participant from the Public authority** answers that, according to the law on waste and contaminated soils (2022), it is no longer necessary to request the end of waste and that they can also be used directly as animal feed, as long as the industry that generates it meets the production requirements. In addition, he adds that if it is not in the Catalogue of ingredients for animal feed (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02013R0068-20220724&from=ES>), it is enough to notify it on the "Feed register material" web page. (<https://www.feedmaterialsregister.eu/>).

After this discussion **AZTI** concludes the great importance of analysing the costs associated with drying and the possibility of using part of the by-products themselves as pellets for energy production. He also emphasizes on the need to validate the legislative aspects associated with the use of the new ingredients in the market.

The second meeting of the Advisory Council is adjourned until the 3rd Advisory board meeting.