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RESEARCH PROJECT

# VALORAGRO

**In progress** VALORAGRO | 01/10/2025 → 30/04/2028

Valorisation of agricultural production wastes through fermentation into pig and poultry feed



# Contact our coordinator



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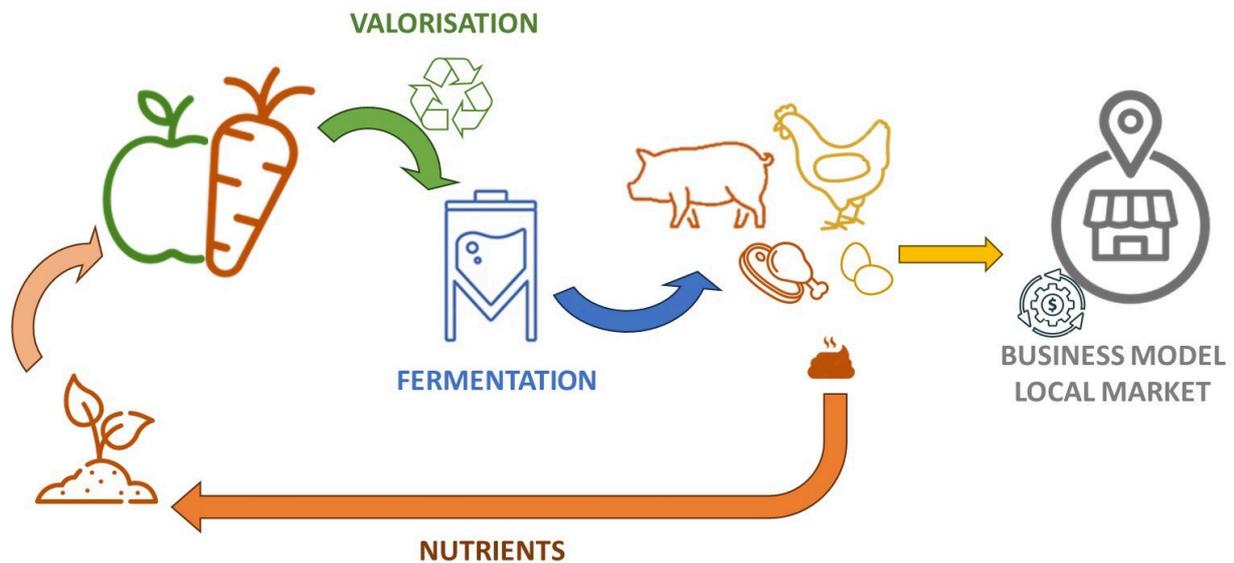
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CONTACT

PARTNERS

## Summary

The project focuses on the **application of agroecological principles to production systems that combine plant and animal production**. Agroecological principles in animal production focus on using local inputs, valorising waste streams, improving nutrient use efficiency, animal health and welfare. This project wants to **valorise vegetable and fruit waste streams from crop production via fermentation on farm for pigs and poultry feeds**. This project will develop strategies where own locally produced feed ingredients are combined with the waste streams to come to a complete feed for pigs and poultry. Participating countries are Belgium (BE, also coordinator), France (F), Germany (D) and the Netherlands (NL). This project has **seven work packages**.



Valoragro concept. Source: Marta Ribeiro Alves Lourenco

**WP1 – Fermentation.** This WP focus on the optimisation of the fermentation process itself. The specific vegetable and fruit waste streams to be tested will be decided upon consultation of farmers and other stakeholders in the chain, and these can be different according to the country.

**WP2 – Characterisation & Application.** Waste streams have different chemical compositions, depending on the region where they are produced: having more or less contaminants, being more or less rich in certain minerals or other pathogens that live in the soil, and have different antinutritional factors (ANFs) that can affect animal's nutrient digestibility. Chemical composition, biological and chemical safety and the reduction or not of ANFs will be assessed. How to incorporate the fermented waste streams in the feed can be a challenge per se and to the feed's life shelf. It is thus important to look at the feed composition itself and to which ingredients can be used in combination with these fermented waste streams.

**WP3 – Impact on animal performance, health and welfare.** The goal is to understand how these fermented waste streams affect animal performance, but also the health and welfare status. The combination with other nutrients and matrixes can play a big role on the overall effect of fermented waste streams.

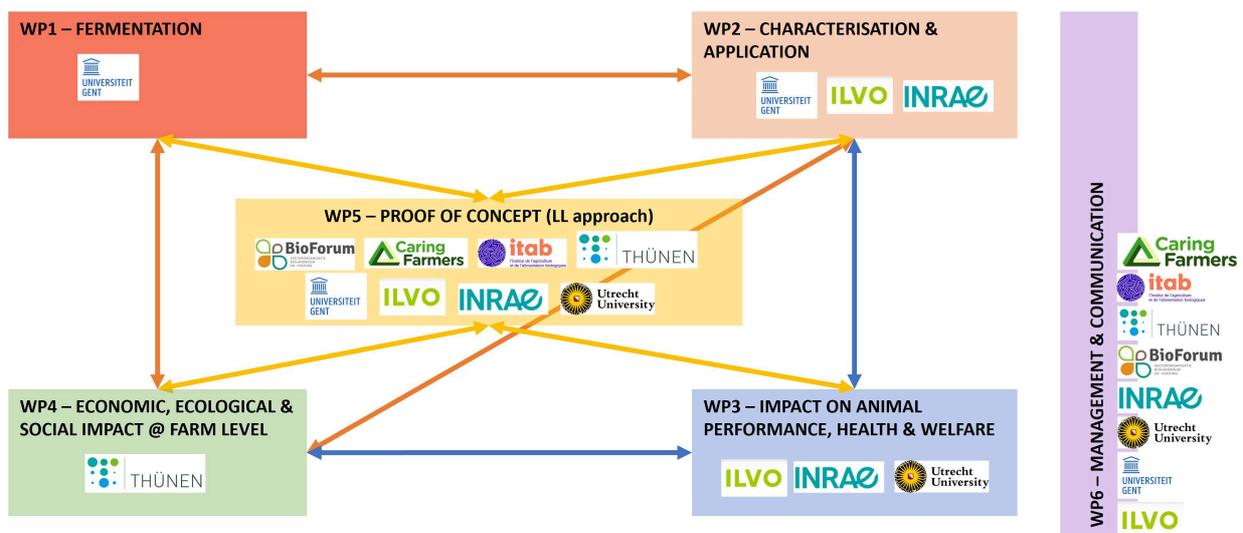
**WP4 – Economic, environmental and social impact at farm level.** The fermentation of agricultural residues and their use as livestock feed will be analysed. Alternative scenarios of novel fermented feed streams will be compared with the current waste stream where residues are left on the field, ploughed into the soil, composted or incinerated. The socio-economic and environmental impacts on farm inputs and

outputs will be assessed, taking into account the differences between organic and conventional farming.

**WP5 – Proof of concept.** This is the most important WP as it will help shape and define which needs are there for the different regions involved in this project. It will also serve as feedback to the different strategies that will be developed within the project. In this WP farmers that want to implement the project's strategies will be helped and followed up. This is a true co-creation and application of the living lab concept.

**WP6 – Project Management, communication and dissemination of results.**

The results of this project will lead to a deeper understanding on how to integrate animal production in agroecological production systems. Throughout the project, the direct training and follow-up during implementation of the proposed methods will help to smoothen the transition of animal production systems into agroecology at farm level, increasing their sustainability and decreasing environmental impact.



Workpackages concept. Source: Marta Ribeiro Alves Lourenco

Top image: Field with food waste. Source: Marta Ribeiro Alves Lourenco

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