FERTIMANURE

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Practice Abstract 3

Innovative on-farm pilots to recover nutrients from manure

Short summary for practitioners

Livestock farms are mostly intense producers, and therefore large amounts of manure by-products are created in these localised areas. Thus, the available agricultural land for manure application is limited, leading to an excess of manure that cannot be used for local agriculture. Knowledge about the amounts of manure and nutrients generated through manure is crucial for evaluating valorisation strategies towards improved management. However, information on actual management practices of all flows is not easily accessible or tracked in some countries.

This is why FERTIMANURE has built and implemented five on-farm pilots using innovative technological approaches to valorise manure in Spain, France, Germany, The Netherlands and Belgium, which will be complemented by creating potential business models and exploitation plans. The analysis of nutrient flows between different components of the agro-ecosystem is a necessary first step in characterising each region and understanding the particular opportunities and challenges faced.

The on-farm pilots' activities have been specifically designed to offer replicable, viable and sustainable solutions for valorising the main types of livestock wastes (liquid slurries and solid manures): pig slurry, cattle manure, cattle slurry, and poultry manure. A total of 19 bio-based fertilisers (BBFs) will be produced at the five pilots. These BBFs will be further used to produce and assess tailor-made fertilisers. Therefore, the project aims to recover nutrients and commercial bio-based and tailor-made fertilisers that can compete on the market with current synthetic fertilisers—providing farmers with an opportunity to use waste and integrate more into circular economy practices.