

## EIP-AGRI practice abstract

### Short title:

Technology for N&P recovery as solid digestate starting from manure and slurry combining mobile cavitator and anaerobic digestion

### Summary:

A management system for managing slurries has been put in place in the southern part of the province of Mantua, in Italy.

This technology allows to reduce excess nitrogen discharge through wastewater disposals. Furthermore, it's possible to replace the silage corn with wastewater and to reduce the cost of power supply to the system. So it allows to increase the environmental sustainability of the energy unit (carbon footprint calculation). Finally, processing slurry and manure is useful to obtain a material more manageable for biogas plants, characterized by high homogeneity, high dry matter content (about 16%), high pumpability, without inert materials. The capacity of the plant is 60.000 t/year by processing about 25 t/hours.

The input material for the system are manure and slurry. The output product is a homogenised material more suitable for anaerobic digestion and more productive.

The process starts with the separation of slurries, which are carried out directly on the farm, with the separator already present in the farm or with a separator installed on a mobile vehicle. The material is sent to the biogas plants to stabilize the slurries, produce renewable energy and digestate.

One of the best opportunities of this technology is that users can include anaerobic digestion plants or farms that require organic inputs to maintain soil fertility. The separated solid can also be inserted in the vermicomposting process, which allows to enhance it in the agro energy supply chain within the biogas digesters in place of the corn shredded.

For more information: [https://nutriman.net/farmer-platform/technology/id\\_262](https://nutriman.net/farmer-platform/technology/id_262)