



The slurry valorization Technology



OUR SOLUTION IS CENTERED ON USING ALL ELEMENTS.

If left untreated, manure pollutes the air with large amounts of harmful gases that are known to contribute to the greenhouse effect and to cause respiratory problems to the people living nearby. Furthermore, when spread onto fields, stockpiled or landfilled, it also leaches and damages the soil and, whether by accident or on purpose, large amounts of pig manure find their way in waterways, leading to the poisoning of fresh water, animals and even humans. Other negative impacts include odor pollution from stored manure and lost land area from stockpiling/landfilling.

Fortunately, manure is nutrient-rich and as such could be transformed into high-value products. Therefore, Opting team have developed solutions for the treatment and transformation of slurry or manure.

This involves the extraction of the manure's solid part, to produce powdered fertilizer (or biofuel powder to be used in a biomass power plant), while its liquid part could be turned into, depending on the level of investment, either liquid fertilizer, disposable water safe for release in the environment, or recycled water for industrial use. While the dry manure powder could generate revenues from the sale of fertilizer bags, the final liquid product offers economic advantages in the form of a reduction of manure disposal costs, as well as in the recovering of land area used for stockpiling/landfilling.

Many slurry types can be used:

- Cow manure treatment and valorization
- Pig manure treatment and valorization
- Wet chicken manure
- Sludge from digesters

For the solid part, an alternative solution consists of producing dry powder and compressing it into pellets for use as renewable energy. This reduces transportation and storage costs, as well as creating ideal conditions for combustion as well as densification conditions for industrial and high-grade bio-fuel pellets.

As a result of the drying process, less fuel input is required to generate energy as compared to combustion systems using wet biomass, and results in both cleaner as well as reduced quantity of emissions.

THIS OVERALL SYSTEM PRESENTS THE FOLLOWING ADVANTAGES:

- Very compact
- Liquid solid separation using proprietary system
- Drying using proprietary BCS
- No combustion is required
- No fossil fuel is required
- Flexibility in processing different wet/dry manures
- High quality NPK fertilizer
- Treatment and Valorization of liquid
- Odor control using our proprietary system
- Low energy consumption
- Low emissions (dust, VOCs, exhaust gases)
- High safety standards
- Cost effective and economical