

JOIN OUR EXTERNAL USERS' ADVISORY BOARD!



The External Users' Advisory Board (EUAB) is a technical committee involving experts, companies and institutions around the issues at stake for CHIMERA that are both technical - the functioning of the plant- and social - its impact on the quality of air and the environment.

contact us at info@life-chimera.eu

Project title: CHIMERA - CHickens Manure Exploitation and RevAluation

Project acronym: LIFE-CHIMERA

Project number: LIFE15 ENV/IT/000631

Partners: TRE P ENGINEERING SRL, Marche, Italy www.trepengineering.it
Renders & Renders V.O.F., Noord-Brabant, Netherlands

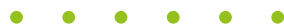
Start date: 01/07/2016

Expected end date: 31/12/2019

Duration: 42 Months

Eligible Costs : 2.170.099 €

EU contribution : 1.294.458 €



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CHickens Manure Exploitation and RevAluation

LIFE15 ENV/IT/000631



THE CHALLENGE

CHIMERA reinvents the chicken manure disposal process. Chicken manure is an organic waste, rarely perceived as a polluting agent; however, it is rich of toxic elements such as nitrogen oxide (N₂O), ammonia

CHIMERA solves all those issues related to waste management. A “ready and easy to use” solution, which works in small farms or farm districts for meat (broiler) and/or eggs production. The dimension of the plant is limited and can be installed within any sized farm.

CHIMERA's ambition consists of transforming waste into a fertilizer, while producing energy. CHIMERA solution: from manure to flowers!



CHIMERA IS THE SOLUTION... WHY?

Pollution: chicken manure usually needs to be stored at farms and then transported to waste-to-energy plants for incineration, only a small part can be disposed on the soil. CHIMERA avoids all that by installing a **small plant working at continuous cycle within the farm.**

Recycle: CHIMERA is a **plant that transforms chicken manure into a fertilizer.** The cycle is closed: from nature – manure – it goes back to nature – fertilizer - to be disposed on the fields, where crops for breeding are grown. CHIMERA contributes to the circular economy!

Energy: the heat generated during the process can be used to **produce thermal and electric energy,** which make the farm self-sufficient. CHIMERA is indeed a sustainable plant and produces clean energy.

THE PROCESS

CHIMERA is a small size chicken manure disposal plant working at continuous cycle in laying hens farms and for programmed use in broilers' ones. The technological innovation related to the **burner** allows a more efficient fumes treatment and a combination of the fumes' organic elements together with the ashes' inorganic ones. The final product is a fertilizer, which is competitive in terms of price and performances with the ones on the market.

Made 10 the amount of manure generated in the plant, the amount of fertilizers will be equal to 1, with relevant savings in terms of volumes too.

The heat produced during the combustion process is conveyed through dedicated pipes into sheds used for breeding and, in part, transformed into electric energy to support the farm's daily operations.

Finally yet importantly, **the water** obtained from manure, which is an extremely humid substance, is completely reused to hydrate ashes and break down the pollutants contained in the fumes.

The first two prototypes have been installed in 2017 in the Marche region, in Italy, while the real scale pilot plan will be established in 2018 in the Noord-Brabant region, in the Netherlands.