







WP3 – Deliverables of the June and July months 2021 of the project - Monitoring

Starting from February, the sampling and analysis of water on piezometers installed to have a halfyearly picture of the quality of water and soil before the installation of the waste treatment plant

WP4 – Deliverables of the June and July months 2021 of the project – Pilote stripping plant installation and start up

On 21-23 June the plant was officially started in the presence of Enas and the supplier company that completed the set-up and installed the automatic control through the laptop. ENAS has provided the installation of water and elttric networks, the purchase of reagents in tanks of 1000 liters connected incoming for the supply of the quantities necessary for both stripping of ammonia, its combination with sulphuric acid for the formation of fertilizer (ammonium sulphate).

To facilitate the treatment of digestate was also acquired a vibrovaglio that allowed filtration of particles larger than 40mm to avoid soiling the membranes and complicate the process. The purchased vibrovaglio gave excellent results.



Procedures have been developed between Bluetec and Enas for the start-up of the system in order to test all the components of the system. They were of three types:

TEST 1

Preliminary test: blank check functionality of the system *TEST 2* Membrane hydrophobic integrity test

TEST 3

Standard Test: check functionality of the stripping process of the plant on synthetic sample prepared in the laboratory

TEST 4

Standard test cycle: check functionality of the stripping process of the plant on digestate sample

The experimentation is continued in the following weeks to acquire manual skills in the procedures and to verify phase by phase the reliability of the process. For this purpose, analyses were carried out both at the inlet and during the process and at the outlet. In addition to the analysis of the product were also carried out using portable kits and instruments acquired for Mediss; pH, T and ammonium measurements to verify whether the reagents acquired in the treatment allowed a proper extraction of ammonia.

The product currently provides on a trial with 250 liters of wastewater, about 60kg of product to be used as fertilizer.

At the moment the agronomists of the cooperative are considering the modalities of utilizing various

types of vegetables. The irrigation will start in the area in September and can also use a share of fertilizers from the plant.



The plant was inaugurated on 24.06.2021, in the presence of local authorities, Italian partners, Auditor of the Enas Partner, PWEG Lead partner by website from Palestine together with partners from Tunisia, Representatives of other projects within ENI, Interreg, contributors, press and television networks.

The irrigation will start in the area in September and can also use a share of fertilizers from the plant.



The results of Mediss was presented in the month of July during the Webinar Conference of "Sinergie per l'efficientamento idrico nell'Area Mediterranea. Il Programma ENI CBC MED".











