



BiFFiO: Progresses of a Pioneer European Project. After a six month run up period for the inoculation of the anaerobic reactors, the BiFFiO pilot plant has been under functionality tests at the University of Liverpool, starting at the beginning of July 2015. During the run up period, a matured anaerobic digestion process has been obtained by the four reactors of the pilot plant. The run up period has also resulted in establishment of efficient pre-processing routine to attain optimum performance of the reactors, and solving operation problems such as clogging in the tubing of the plant. The first phase of the functionality tests consisted of trials using different mixes of marine aquaculture sludge and animal manure as substrate. This phase has been running until the end of 2015, and has resulted in consistently stable performance of the reactors with high-grade biogas production. The operation of the reactors and the biogas production is controlled by intelligent process control system, and can be monitored remotely by project partners. The digestate generated from the biogas production has been subjected to laboratory growth trials to evaluate availability of recovered nutrients. The laboratory pot trials have revealed that the digestate from the BiFFiO system can be utilised as a valuable biofertiliser. The protocol established in the laboratory trials will be used for full scale growth trials until the end of the project period.(October 2016). In the second phase of the functionality tests that started in mid-February 2016, the reactors are fed with various mixes of fresh water aquaculture sludge and animal manure. The trials are running with similar test protocol as in the first phase, and the preliminary results have revealed similar performance of the system as obtained in the first phase. The second phase trials are scheduled to continue until October, 2016.