# **Services**

**Energy Efficiency** 

Maintenance Planning 2

**Process Optimisation** 

**Health Monitoring** 4

**Fault Detection** 

on 5

1

PUMP project applies existing non-intrusive energy monitoring tools and advanced ML models to analyse the patterns in electrical loads of machinery equipment, disaggregate component loads, and detect deviations from normal operation in a food processing plant.

### Info



pumpproject.eu



**PUMPproject** 



pump-project

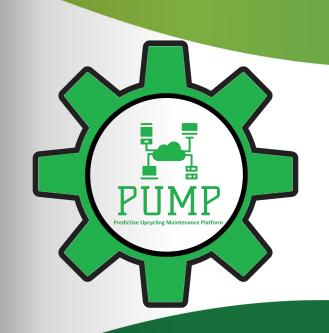


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# **PUMP**

Predictive Maintenance Upcycling Platform



Combination of various technologies towards Energy Efficiency recommendations, optimal process and maintenance planning, health monitoring and identification of possible signal anomalies

#### **Outcomes**

The experiment utilizes KYKLOS 4.0 components along with the already developed tools to for real-time energy monitoring of the various process lines and deliver Energy Efficiency tips and increase the circular approach of the industry.

Utilizing the Energy Monitoring System and the advanced algorithms and methods for signal analysis and anomaly detection, alerts are generated regarding possible faults in the monitored devices.

The whole process of the industrial shop floor is monitored and specific process modifications may be suggested following to optimize the process line in terms of efficiency, time, or waste reduction, utilizing the LCA component of KYKLOS 4.0.

Utilizing the KYKLOS 4.0 component "Maintenance Scheduler" and the project partners tools, the end-users are able to plan more efficiently their maintenance actions and ensure proper and timely service of the equipment.

# **KYKLOS 4.0**

The PUMP Experiment has indirectly received funding from the European Union's Horizon 2020 research and innovation action programme, via the KYKLOS 4.0 Open Call #2 issued and executed under the KYKLOS 4.0 project (Grant Agreement No 872570)





# PUMP Project Partners





