Maximising the efficiency of processes in the waste cycle: the synergy between LSI LASTEM and Ambiente Guidonia

The waste cycle as a resource

In the constant search for innovative solutions for the treatment and recovery of waste, **Ambiente Guidonia** stands out for its commitment to combining the needs of **industrial progress** with those of **environmental protection**. Through the waste cycle, it aims to transform industrial waste into products intended for energy recovery, environmental restoration and material recycling. In this mission, the **collaboration with LSI LASTEM** is a strategic opportunity to optimise environmental monitoring and ensure efficient and sustainable processes.

The Guidonia plant: technology for an eco-compatible future

The **Guidonia plant** presents itself as a pillar of innovation in the waste treatment sector. Equipped with two distinctive production lines, it stands out for its versatility and its ability to adapt to changing market needs. **Line 1** focuses

on the **production** of a **fuel** for electricity generation and district heating, while **Line 2**, initially conceived for composting, is dedicated to the production of a **stabilised organic fraction**, ideal for environmental restoration.

Adaptability to change: constant innovation

The flexibility of the Guidonia plant is evident in its **ability** to anticipate and **respond** to emerging **trends** in the **waste recycling** and **recovery sector**. Designed with advanced criteria, it is able to manage not only undifferentiated urban waste, but also that resulting from the separate collection of plastic, paper and multi-materials. This adaptability makes it a benchmark for a constantly evolving circular economy.

Long-term environmental monitoring: the key role of LSI LASTEM

In the context of the Guidonia plant's activity, **environmental monitoring** plays a critical role in ensuring regulatory compliance and operational sustainability. **LSI LASTEM** stands out for its ability to provide **advanced solutions** for **long-term monitoring in real time**, offering a significant competitive advantage over other systems on the market. Through the installation of reliable systems and the constant supervision of environmental parameters, it helps to ensure the safety and efficiency of odour emissions abatement processes. The parameters monitored are: temperature and pH of the biofilter drainage water conveyed into appropriate collection tanks; temperature, humidity and differential pressure of the pipes, temperature and water content of the biofilter chips.

A collaboration for the sustainable future

The collaboration between Ambiente Guidonia and LSI LASTEM represents a tangible example of how the **synergy** between industry and innovation can generate positive impacts on the environment and the economy. Through a combination of **cutting-edge technology** and **environmental commitment**,

both parties aim to continue promoting sustainable practices and lead the industry towards a more eco-friendly future.

Products used

The following products were used in the case study:

DMA875.1: duct temperature and humidity sensor;

DQA524: pipeline differential pressure sensor;

DQA340.1: biofilter temperature and water content sensor;

DQA431: liquid temperature and pH sensor;

DLALB0100: Alpha-Log data logger;

MDMMB1110: ALIEM input extension.