

Wastewater odour Cloud. WoC

Cloud platform for the preventive management of odouriferous gases in WWTP

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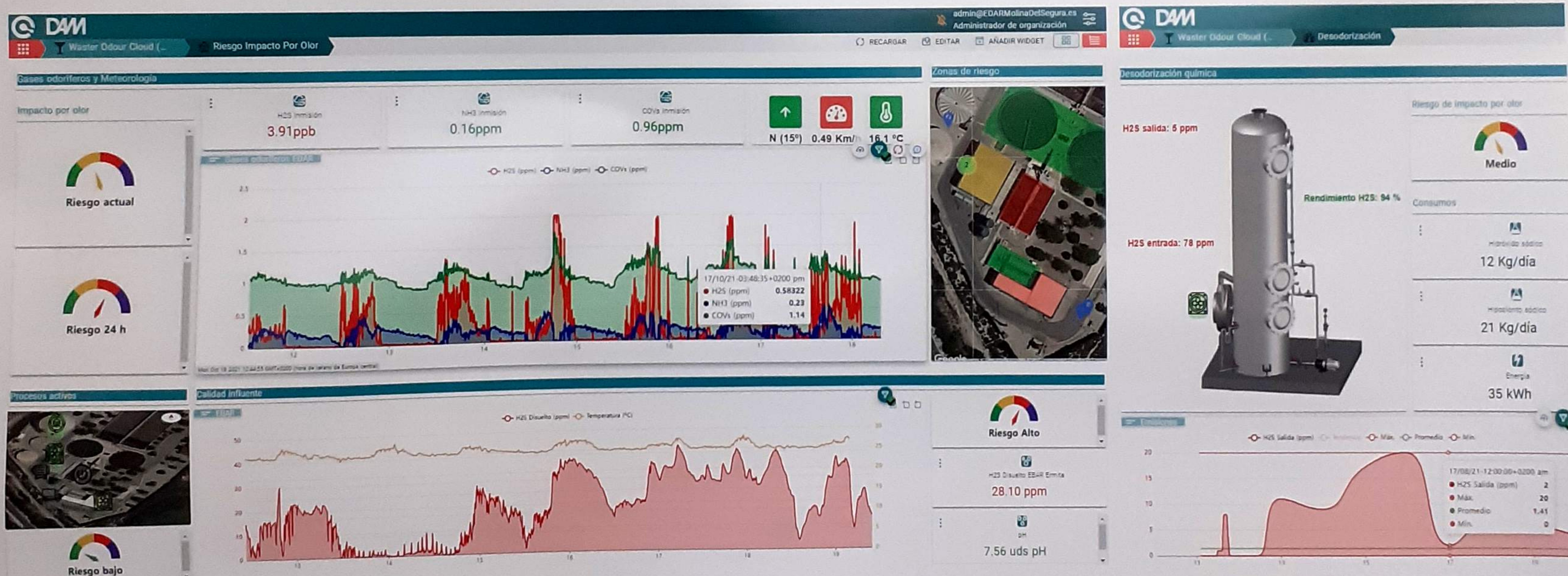
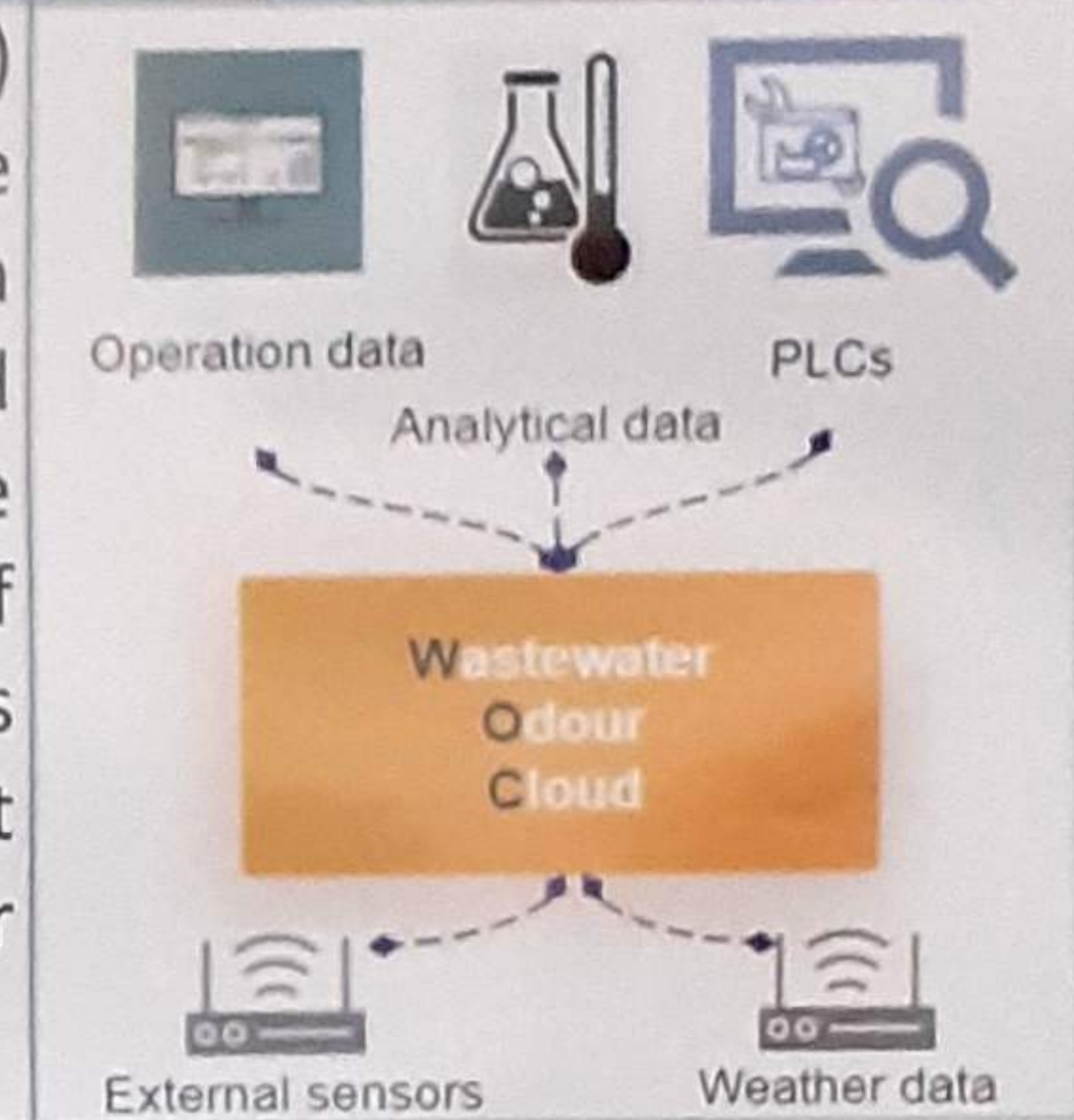
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THE CHALLENGE

The correlation between the influent physicochemical characteristics of the wastewater treatment plants (WWTPs) and the operational parameters of different treatment processes with potential emission of unpleasant and harmful gases, allow obtaining very valuable information to improve the operation and safety of WWTPs, as well as their the odour impact.

OUR SOLUTION

This study shows the development of a preventive system based on key performance indicators (KPIs) able to predict the potential impact of odourous gases, and monitor all the processes involved in the odour management. With this purpose, a cloud platform is being implemented in Molina del Segura (Murcia) WWTP, integrating the continuous monitoring of the main odouriferous gases at selected points, weather conditions and operational parameters, in a cloud based platform with real-time analysis of the data and identification of the specific KPIs. A customised dashboard assesses the risk of odour impact according to the online monitored parameters, such as concentration of odouriferous gases, weather data, plant operational parameters or influent water quality. The system helps plant managers monitor and make decisions on the operation of critical processes involved in odour management, such as deodorisation systems.



ENVISIONED IMPACT

The study will allow (i) to analyse the suitability of the proposed solution; (ii) to program the operation of some processes such as centrifuges or disposal of dehydrated sludge; (iii) to adapt the work of the operators to the time slots where health and safety conditions are better, especially regarding H_2S concentration and (iv) to analyse the efficiency of the deodorisation systems implemented in the WWTP.

ACKNOWLEDGEMENTS

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We hope that this would be a starting point for our WWTP to be a healthy workplace without impacting our environment.