

Wastewater Treatment Plant

An innovative operation for a more sustainable water management



The recent Jouanas wastewater treatment plant (WTP) is one of the four treatment plants managed by the Mont de Marsan agglomeration in France. Since 2021, this new WTP has been tasked with treating, controlling and real-time monitoring of the wastewater recycling process and associated network using the Panorama SCADA platform.

The WTP has also included in its application new operational activities such as centralised sewage sludge management, making it possible to produce biogas. This is a serious asset in the water authority's bid to meet the environmental challenges it faces.

in figures

- 7 municipalities
- Treatment capacity for 50,000 inhabitants
- 300 km of network
- 3 storage basins
- 60 storm overflows of which 20 are equipped with Panorama



Choice of the Panorama SCADA platform

The panorama platform was chosen to meet various needs:

- **Mobility** for enhanced maintenance management: by setting up an industrial network, field operatives can access the instrumentation and control system directly from the lifting stations for example, via tablets equipped with panorama hmis,
- **Autonomy and interoperability**: by selecting a solution that is hardware-agnostic and manufacturer-independent. So the future cmms system can be coupled with panorama in order to implement **predictive maintenance**,
- **Scalability and extensibility**, which can be easily deployed to accommodate future projects: for flood alerting, access control, CCTV, fire safety, rainwater management, assessment and reporting,...
- **Cybersecurity** by choosing a robust solution certified by the French Government's Cybersecurity Agency.





Hydrodynamic management to safeguard works and infrastructures

Over and above a standard alarm and on-call system for the teams, the Jouanas WTP has set up a **hydrodynamic management system** using Panorama. This is an environmentally innovative solution for limit discharges into the natural environment and reducing pollution. In the event of a heavy rainfall event, for instance, with a mass influx of water over a very short period of time, excess flows are directed to the storm water basins so that peak flows won't be exceeded. The interoperability of the systems and the inter-facility communications will promote better management of equipment and facilities.



Aeration tank



Biomethane production

Methanisation of sewage sludge

The Jouanas WTP is breaking new ground with the implementation of **sludge recovery** for the production of biomethane. From now on, the sewage sludges from the different stations are recovered and treated to extract **biogas**. Completely autonomous for its process management, the WTP is able to inject the gas it produces directly into the national GRDF network.

Moreover, within a few years, the plant will be able to **produce more kWh than it actually consumes** and will become a positive energy treatment plant! The WTP is relying on the Panorama platform to help meet this new challenge by controlling processes that require high precision and adaptability.

An ergonomic user-centric software solutions

Panorama is a user-friendly SCADA software designed for building HMI that are adapted to users' needs. The application is suitable for use by a wide range of staff. Getting started is **an intuitive process**, making it easier to train new operators at the WTP.

Equally, the instantaneous display of information and fluid navigation mean that **time savings will follow, both on operations and diagnostics**.

Looking further ahead, a Panorama «Sanitation» hypervision coupled with the «Drinking Water» management system is being considered with a view to pooling skills, costs and the management of the network as a whole.

« Each technical hurdle can potentially be overcome thanks to Panorama »

Clément FAGET, Process Engineer and Pilot at the Jouanas WTP