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Its OCCs put Saur ahead of the pack when it comes to making the digital transition that inevitably faces the water management industry.

Saur is the third-largest water company in France; an outsider whose smaller size gives it the agility to adapt faster to market demand and make the leap to digital, connected management of its network assets. This operational flexibility is what enabled the recent opening of its most ambitious OCC - Operations Control Centre yet in Marne-la-Vallée. We take the tour with Christophe Tanguy, Water Operations Director France.

THE **SMART** WATER ADVANTAGE

Why is the company so committed to opening operations control centres? This question is essential to understanding Saur corporate policy, but to answer it, we need to go back a few years. In 2008-2009, Saur found itself having to cope in a fiercely competitive market, and local authorities that were looking to take back control of their water services. These services, which remain the responsibility of local authorities, were either under direct management or outsourced, and for a long time those delegated service providers were monitored only from a great distance. But since this was one of the last public services of its type over which councillors had full authority at the time, local authorities decided to review their water policies. They were asking for more competition, lower prices and, above all, higher levels of technical performance in terms of water quality, network efficiency, consumer service levels, etc. More than anything else, local authorities wanted total transparency about the operation of those companies.

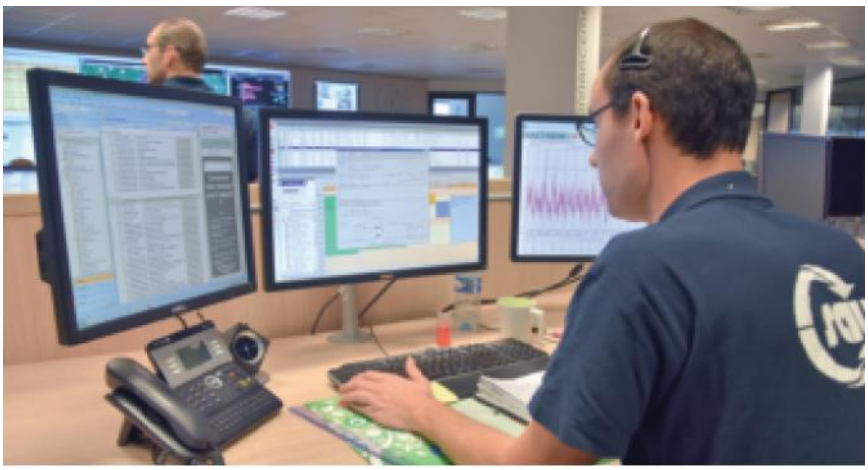
Visibility of how service providers actually operated in the field became an issue. That in turn required a better level of control over every link in their infrastructure operations chain. But for a local authority, the result of that could be information overload. For example, at the Marne-la-Vallée OCC where the teams manage more than 10,000 responses every week, it would be very complicated for a local authority to sort and filter all the data in any meaningful way. The results would not be hugely helpful in terms of meeting investment optimisation targets, for example. The essential idea behind the OCC is to work in close consultation with local authorities in order to provide them only with relevant information. Before the advent of Saur OCCs, the organisational structure of large-scale water services management providers was therefore not at all appropriate for meeting the new needs of local authorities. It was at this point that the need emerged for an organisational structure that would deliver a guaranteed effective response based on the sharing of expert input and centralised work allocation and scheduling function. This latter issue is essential in terms of gathering all the data required for analysis and for reporting, as well as ensuring that all field responses are correctly handled and that all of this information can be forwarded to the customer.

Saur now has 8 OCCs. The first to respond to the new demands of local authorities was the Toulouse OCC opened in September 2010. Other OCCs preceded it, but those were not as ambitious in terms of intention or possibilities. The Toulouse centre was the first to personify the new policy of the company. As this control centre project assumed a national dimension, the early OCCs were upgraded and relocated to fulfil the new function more effectively. This move saw the opening of the Nîmes, Saumur, Lyon, Marne-la-Vallée and Vannes OCCs in mainland France, and others in the French West Indies and on the island of Réunion. The purpose of these relocations was partly to enlarge the centres, but more importantly to provide a more local service, because although digital technology provides easy communication, each OCC is also a central hub driven by the operational services delivered by connected field staff. This local presence improves communication through more direct personal contact, so the location of every OCC is chosen to ensure that they it is no further than 3 hours' drive for a scheduler. Christophe Tanguy: *"I've created a new rule that each scheduler must spend time in the field at least twice every month"*. The OCC is also the base for technicians and engineers qualified to first-degree and postgraduate degree level. It therefore constitutes a centre for employment opportunities, which encourages future employees and their families to relocate to the area.

OCCs bring together a broad and varied base of skills. First, there is the 'control tower' function represented by the schedulers, or rather the *"operations technicians responsible for organising the work"*, as Christophe Tanguy prefers to call them. This description underlines the fact that these are people who understand the jobs involved and have the expertise required to organise the work done by the field teams. This in no way prevents local management from ensuring that the work is properly carried out and that the schedule reflects the reality on the ground. The local manager has therefore subcontracted the organisational aspects of the work done by his or her teams, but retains supervision of them. The control tower function on the other hand is better suited for managing the urgency of responses on the basis of human resources, since the local manager will not have access to the extensive panel of data received as a constant stream by the OCC.

Its technical expertise enables Saur to install an increasing number of data acquisition and measurement systems throughout the regions it serves. This is important from the company's point of view, because the resulting flows of real-time data allow it to be more accurate in its analysis and diagnosis of potential problems, and apply a policy of systematic analysis. The resulting configuration is essentially a smart grid. So when the OCC says that it is necessary to carry out work at a precise location at a precise time on a particular day, it does so in full knowledge of all the decision support information. Today, an operator may potentially receive data from a very large number of different sensors. But it is impossible for the same operator to be in a trench on a customer's premises and be constantly on the lookout for alerts. So the OCC is there to fulfil that task and guide teams with maximum efficiency.

Once the data has been collected and formatted, the next step is managing it to extract maximum usefulness from it. Internally, this makes it possible to ensure that the service is correctly delivered and that the company meets its contractual obligations. With the Online OCC, the same data is shared with the local authority over an intranet to give it full access to all the data for its area. The infrastructure does not belong to Saur, and neither does the data. Saur provides the local authority with intelligible data that will enable it to clearly identify those issues requiring its attention. This is the reason why the OCC centre of expertise has been created to provide support and advice based on solutions developed by experts in hydraulics and water treatment. Managing these data therefore requires a thorough understanding of how they should be formatted to meet the needs expressed by the local authority - sometimes in real time - and to help it interpret the meaning of the data it receives. On this latter point, the expert will make a field visit to assess the situation at first hand, conduct a diagnostic analysis, make a proposal and assist the scheduler in his or her analysis by providing specific instructions.



Schedulers are the backbone of the system; the effective conductors of the orchestra who coordinate all the contributions from all those involved in managing water networks.

By Sébastien Battaglini - article published in Réseaux VRD, February 2016

Christophe Tanguy, Water Operations Director France: "Each scheduler must spend time in the field at least twice every month".

Creating OCCs has also required Saur to put in place the necessary expertise in industrial IT. With 3,000 separate sites (production, distribution, treatment, compressors, etc.) connected to the Marne-la-Vallée OCC, for example, it is clear that a high-performance industrial IT system is required. The basic concept relies on data arriving at the OCC being correctly routed. The reporting end of the process also requires specialist mapping and GIS skills, because geolocation is the cornerstone of network management. Sensors, leaks and even customer addresses... all are geolocated on the system. It is also very important to note that all new drinking water supply networks will be classified as Class A. For existing networks, Saur proposes contractual amendments for the gradual migration of Class C networks to Class A status. Against this background, the GIS is therefore central to data communication and concentration. Saur uses a leading GIS provider (esri) because it believes that local authorities must have access to all their data. So for reasons of transparency, the company does not operate its own proprietary system.

This centralised organisational structure also improves logistics. Sending the right technician to the right place with the right equipment at the right time requires highly detailed logistics. That ability is accompanied by an upgrade to the business information system to enable its interface with suppliers to shorten the order process and deliver a more responsive service based on fixed prices set out in a framework contract. This centralisation of logistics enables a more detailed level of development for the selected hardware. It is accompanied by employee training based on innovation monitoring with large companies and startups. All these OCC capabilities and competencies share the same aim of helping local authorities to manage their water resources more effectively. For Saur, it is also a cutting-edge weapon for gaining market share and attracting local authorities keen to achieve efficiency and transparency. The company was recently awarded a contract covering part of the wastewater treatment needs of Valenciennes on the basis of its innovative IT-driven technical solutions, and has seen many of its major contracts recently renewed.

By Sébastien Battaglini - article published in Réseaux VRD, February 2016

Saur and technical evolution

Saur Group Executive Chairman Jérôme Le Conte was proud to attend the official opening of the Marne-la-Vallée OCC. He also used the occasion as the opportunity to look back over the history of Saur. *"Created 80 years ago, it is a company with its roots in the west of France. It has expanded over time as a result of changing shareholders and a natural process of change"*, he reminded his audience. Today, Saur executive management is provided by the nine members of the supervisory board and one director. The company still has a high level of debt, but that situation is rapidly and continually improving. Its OCCs are allowing Saur to adapt successfully to new expectations and demands by structuring itself at regional level. *"The OCC is an effective tool for gaining new business in those areas where Saur is not currently well represented", explained Jérôme Le Conte, who continues: "We do not want to be the low-cost operator, but we are committed to being the most technically effective, at the same time as being the least expensive".* To achieve that, the company relies on its essentially flat management structure to adapt very quickly. *"Saur is a French regional company. And it is also the most agile operator"*, concludes Jérôme Le Conte.