



Issy-les-Moulineaux, 24 November 2016

POLLUTEC 2016

Smart Solutions by Saur take on the great challenges of the water industry

As a major provider of delegated environmental services, Saur will be well represented at the Pollutec exhibition at Lyon Expo between 29 November and 2 December. At this year's event, Saur will be showcasing its range of smart solutions designed to help local authorities and industrial companies manage their water services more effectively.

smart solutions by 

Smart Solutions by Saur: the best technologies for local authorities and industry

The development of smart technologies for the water industry is a key priority of Saur innovation policy. As committed as ever to building its distinctive identity in the market, Saur partners start-ups as part of sustainably boosting its operational performance in all the regions it serves, and creates new services that provide even greater protection for water resources, the water infrastructure and the environment.

Smart technologies permanently linked to the OCC[®]

Saur continues to lead the way in smart solutions for the water industry, but it was back in 2007 that the Group invented the OCC[®] as the nerve centre for the control, management and analysis of local authority water supply and wastewater treatment data. The OCC[®] (Operations Control Centre) is packed with innovations that are revolutionising the water industry by giving local authority councillors a real-time comprehensive overview of the service delivered in their area. As part of delivering long-term service improvements, the OCC[®] brings the best technologies available in today's market together with the expertise of experts and highly experienced staff with the ability to identify service issues and risks, and extract maximum value from operating data using extremely accurate diagnostic systems. All of which makes the OCC[®] uniquely placed to suggest the most relevant improvements to local authorities, and support them in planning their capital expenditure to gain maximum value for money. The OCC[®] gives Saur a clear competitive edge from the viewpoint of urban communities with a commitment to greater openness and taking back ownership of their own water policies.

Smart solutions are continuously implemented in the 8 operations control centres to continuously add new functions with the aim of delivering an even more accurate and responsive service to meet the specific needs of each area served.



PRESS RELEASE

Smart Solutions by Saur enable water network facilities to become connected and benefit from the latest digital innovations and the full range of Saur research.

Smart Solution 1: AQUAVISION®

Active protection and management of water resources in coastal environments: high-frequency sensor analysis of aquifer quality

Saur has developed an innovative groundwater resource management process in conjunction with ImaGeau. Its goals are to manage the resource more effectively, guarantee water quality, avoid additional costs and respond effectively to an ecological problem. In practical terms, this innovative watchdog for groundwater resource management makes it possible to prevent the infiltration of seawater into freshwater aquifers; a situation feared by many in coastal regions, especially given the increasing pressure on water resources. Accurate continuous monitoring of aquifers and their dynamic management is the only way of reducing this threat and avoiding the need for a lengthy, difficult and expensive remedial process. AQUAVISION® involves the installation of high-frequency sensors at depths of up to 200 metres. These sensors then manage the salinity of the poral fluid at different levels in each aquifer. This solution is linked to a dynamic management system that gathers data continuously and uploads it to the OCC (Operations Control Centre). These data are then used by specialists to forecast and plan abstraction from this resource on the basis of the parameters measured.

Smart Solution 2: EAR®

Pipeline network efficiency: an innovative acoustic listening solution for continuous leak detection

Saur, which has been distinctive in the marketplace for many years for its pipeline network management policy driven by its OCC® expertise and technological innovations, is always keen to embrace new and even more effective leak detection sensors. Ecoute Active de Réseau (EAR®) is an innovative acoustic listening solution suitable for use with all types of metal and plastic pipes developed in partnership with Sainte-Lizaigne and Seba KMT. What makes the EAR® system particularly distinctive is the fact that its membrane hydrophone sensors are in direct contact with the water. The extremely high sensitivity of these sensors makes it possible to eliminate background noise. Used in conjunction with network sectorisation, this technology locates leaks precisely. EAR® delivers optimum performance on dense PVC networks. The data generated by the EAR® sensors are uploaded via the GSM mobile phone network to OCC® experts, who can then analyse and use the centre platform to schedule field maintenance teams to carry out the necessary work. The EAR® system has been rolled out for use with Saur-managed pipeline networks throughout France. On the Caribbean island of St. Barts, Saur gave a commitment to improve network efficiency from 69.1% to 72%. Thanks to the simultaneous implementation of network sectorisation and the EAR® system, the results achieved far exceeded expectations, hitting an efficiency level of 83.4% in 2015.



Smart Solution 3: Intellitect®

Boosting drinking water supply network performance and reliability in real time using the Intellitect® multiparameter sensor

In partnership with Intellitect Water, Saur is offering local authorities the opportunity to optimise their drinking water supply networks by fitting smart sensors. Continuous monitoring of hydraulic factors (flow rate, pressure, flow direction, etc.) in conjunction with analysis of overall water quality assessment parameters (conductivity, turbidity, residual chlorine, pH and temperature) offers improved control of network performance, water quality and variations in water quality throughout the network. Data cross-referencing ensures fast, early-stage detection of issues or critical zones within the network. What makes this solution smart is its ability to analyse data and map the normal status of the supply network. Using this normal status benchmark means that Saur can rapidly identify changes in the network in real time, provide a guarantee of water quality and secure the water production system.

Smart Solution 4: Remote meter reading

Smart meters: a remote and totally interoperable meter reading solution validated by the French data protection agency (CNIL) and fully compliant with FNCCR (the body representing public and private operators of local public services in France) recommendations

Saur has brought together its expertise in water treatment and water services management with the Internet of Things to offer a comprehensive and secure remote meter reading solution like no other in the market. The Saur solution ensures system interoperability (i.e. not operator-specific) by using the FNCCR protocol in accordance with the EN 13757 GA E17-901 standard. The Smart meters used by Saur give local authorities more effective control of their consumption, dynamic network performance monitoring, the ability to track peaks in subscriber consumption and detect leaks on the consumer side of the meter. The solution developed by Saur and its partners is integral to the process of developing smart metering to achieve a more dynamic overview of drinking water consumption. It gives subscribers the opportunity to receive bills based on actual meter readings, rather than estimates. Alerts by e-mail and text messaging warn consumers of unusually high levels of water consumption. The Saur remote meter reading solution has been rolled out in around twenty local authority areas in France, where it is already delivering a very high level of performance and security.

Smart Solution 5: R&D - CarboPlus®

Guaranteeing the health safety of drinking water by using the CarboPlus® process to eliminate micropollutants and drug residues

Pesticides, biocides, detergents, drug residues... Molecules resulting from all kinds of human activity are now detectable at trace levels in water resources. The concentrations may be low, but this multiplicity of molecules poses a potential risk to human health and the environment. The **CarboPlus®** process patented by Saur eliminates a very broad spectrum of micropollutants at low cost by adsorption using activated carbon. Neither concentrated nor converted to toxic by-products, the undesirable molecules are completely removed from the water with zero risk of uncontrolled re-release. Introduced at the polishing treatment stage, CarboPlus® provides proven and effective elimination of plant protection products (pesticides, weed killers, etc.) and drug residues (anti-epileptics, hormones, tranquillisers, etc.).

Smart Solution 6: R&D - Methanation**Methanation and co-digestion: generating energy from the digestion of wastewater treatment plant sludge and suburban organic waste**

Saur has developed a solution for generating methane from the sludge produced by larger wastewater treatment plants and from a mixture of organic waste and sludge from smaller treatment plants (the co-digestion process). Combining the quantity of energy generated by a digester fed with multiple substrates with lower up-front capital investment makes it possible for small-scale wastewater treatment plants to have their own methanation process. Saur has entered into a partnership with LEDJO-Environnement, a technical design consultancy that investigates the potential for recovering organic waste, and has designed a low-cost digester solution. The Codilog software (developed by Saur and IRSTEA) takes the details of the sludge/organic waste mix as the basis for estimating methane production potential (and therefore the quantity of energy generated), the N/P/K composition of sludge to be removed and that which can be fed back into the start of the process. After purification to remove its CO₂ content, the biogas produced is injected into the domestic natural gas supply system.



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A propos de Saur : acteur de la gestion déléguée de services à l'environnement, le groupe Saur accompagne les collectivités locales et les industriels dans leurs projets d'aménagements liés à l'eau (Saur), la propreté (Coved), l'ingénierie (Stereau), les travaux (Cise TP) et les loisirs (Blue Green et Flower Campings). A l'international, Saur est présent en Arabie saoudite, Arménie, Ecosse, Espagne, Pologne. Chiffres clés 2015 : 1,6 milliard € de chiffre d'affaires net, 10 000 collectivités sous contrat, 12 000 collaborateurs et 18 millions d'habitants desservis en France et à travers le monde.

Saur

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