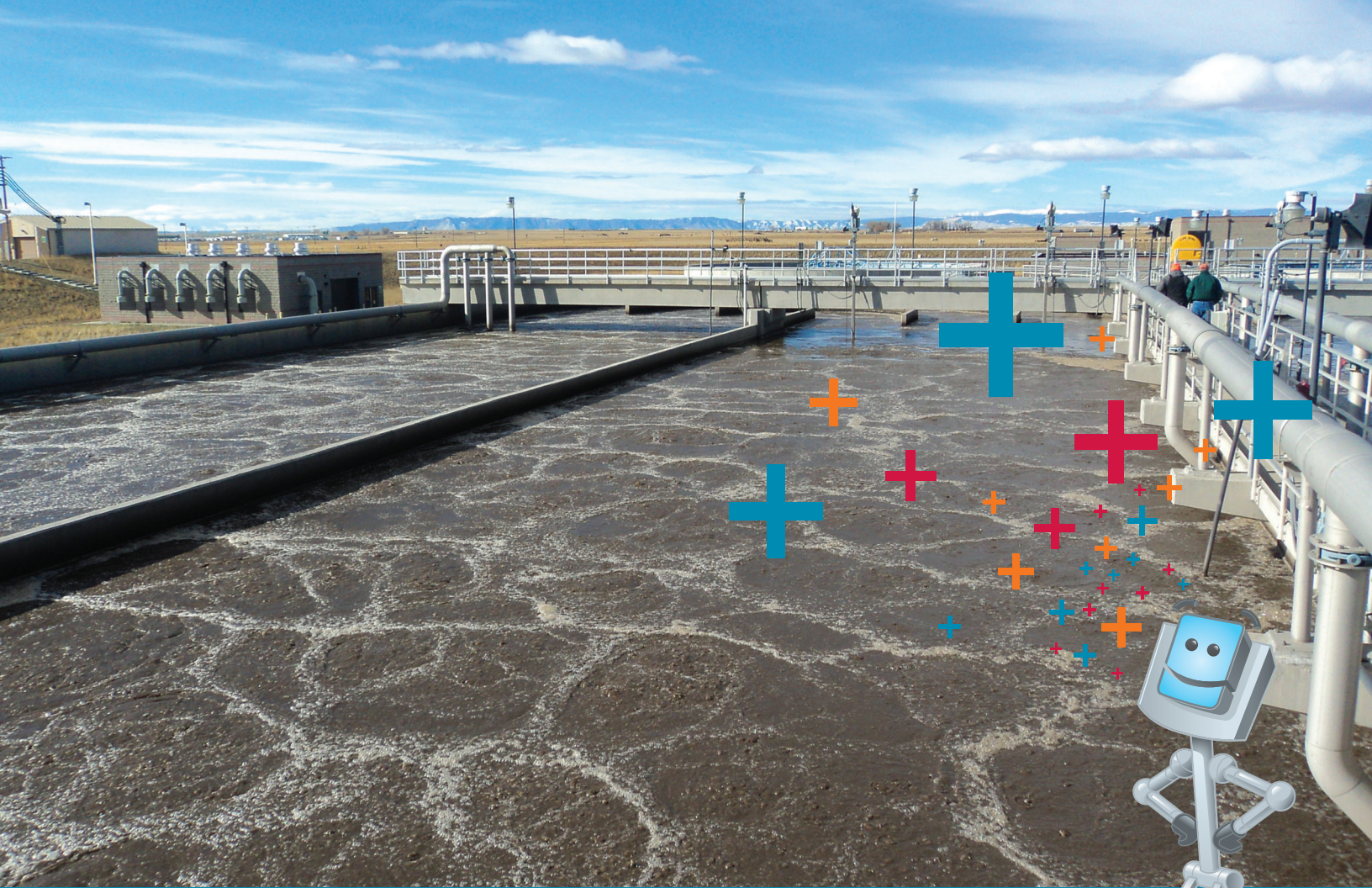




# OSCAR Process Performance Optimizer

FOR BIOLOGICAL TREATMENT PROCESSES

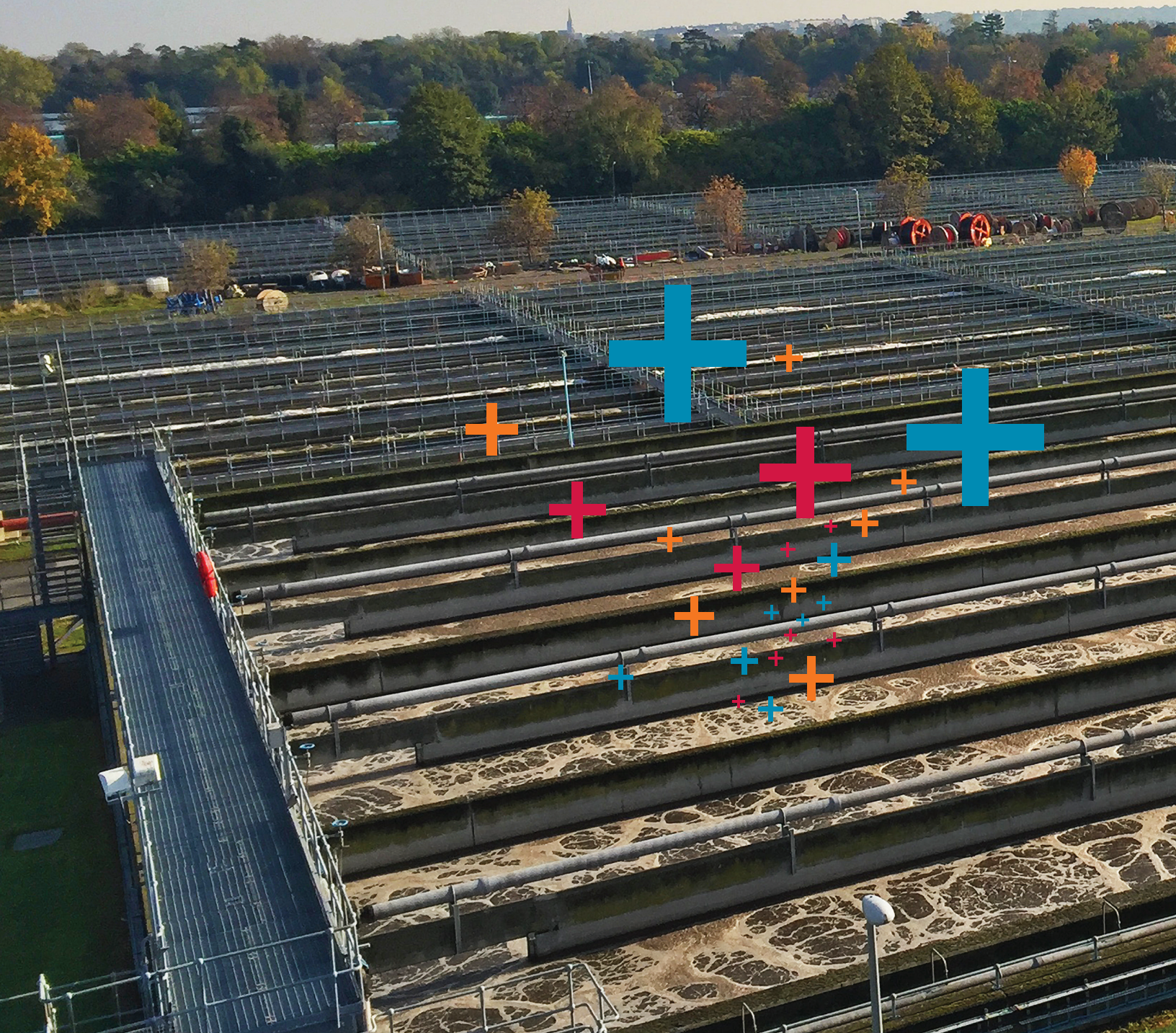


**SANITAIRE**  
a xylem brand

Wastewater  
**+rea+men+**



Real-time control  
adds up to optimized  
performance.





# The benefits of an OSCAR system are clear.

The OSCAR control system is a customizable, integrated system comprised of hardware, software, and services. Designed to be used with Sanitaire biological treatment solutions, OSCAR helps plants meet their performance requirements and operating budgets.



## Reliable Treatment

Dynamically adapts to changing conditions to optimize contaminant removal for guaranteed effluent quality



## Efficient Operation

Optimizes equipment operation resulting in energy savings between 10-30% and reduced or sometimes eliminated chemical consumption

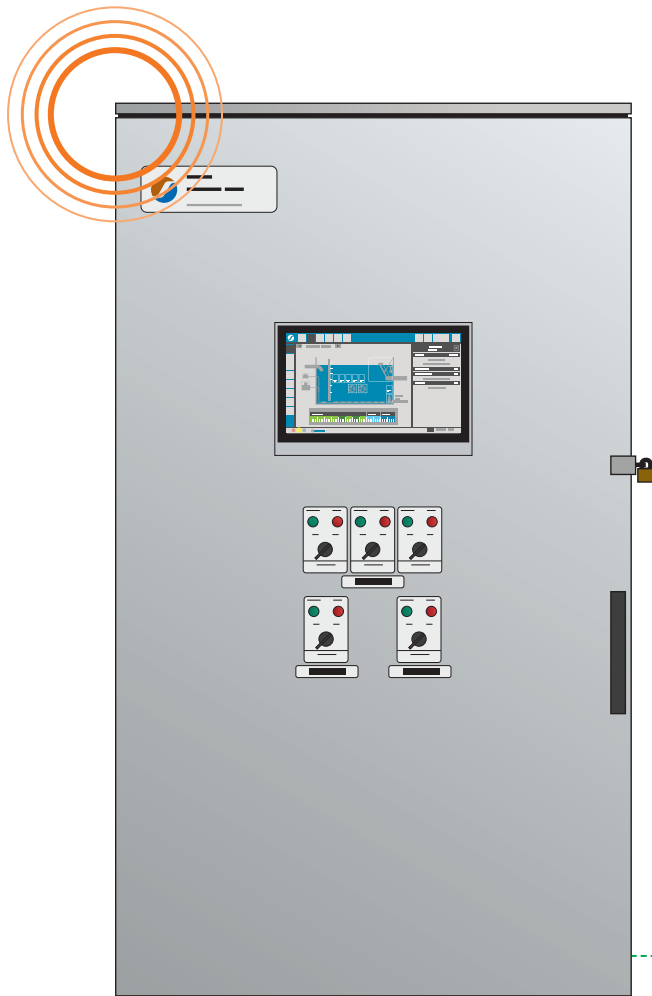


## Operator Friendly

Provides greater ease of use through intuitive controls and remote accessibility, saving some operators 3-5 hours each week

Let me show you  
how I have helped  
other plants  
achieve their  
treatment goals!





The OSCAR control system looks beyond the energy efficiency of individual components to the entire biological process for a variety of applications.

Leveraging Xylem's extensive product, controls, and biological process expertise, the OSCAR system was developed to provide a comprehensive solution for a plant's needs.



### Remote Connectivity

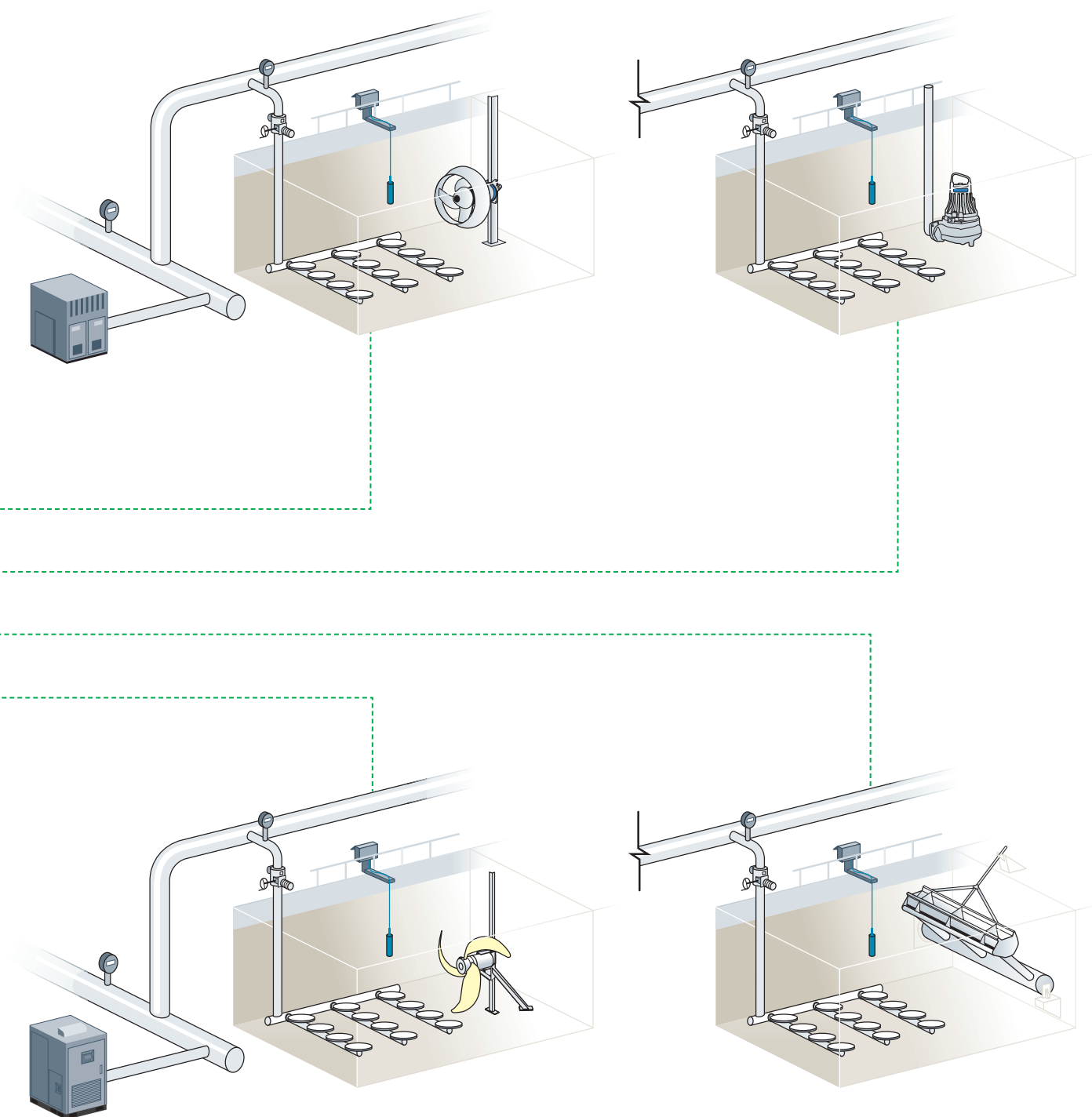
Secure remote accessibility and control ensures that plants can:

- View and interact with all screens, setpoints and alarms remotely
- Allow Xylem access for remote troubleshooting and support
- Monitor and make process adjustments both in and out of plant
- Seamlessly embed into third party SCADA packages

Accounts can include multiple users with customized access levels.



Unlike other control systems, Sanitaire has designed the OSCAR system based on years of feedback from wastewater plants, allowing for customization and easy expansion as future requirements change.



The OSCAR system was designed to work seamlessly with Xylem's suite of products, including Sanitaire aeration and decanters, Flygt pumps and mixers, and WTW/YSI/MJK instrumentation. The result is the most optimized, efficient solution in the industry.



# An integrated platform for complete control.



## Hardware

The OSCAR system control panel and instrumentation connects the process equipment to the control algorithms.

Engineered-to-order control panel consisting of:

- PLC, HMI, Webport
- Power equipment
- Control switches/lights

Instrumentation options for real-time monitoring of:

- Process, flow, and level parameters
- Influent, effluent, sludge, and in-basin locations
- DO,  $\text{NH}_4$ ,  $\text{NO}_3$ , TSS,  $\text{PO}_4$ , ORP, pH, COD/TOC/ BOD, conductivity, turbidity, temperature

Integrating smart sensors allows the control system to bring back more than just a 4-20mA signal and use the extra data to make critical decisions.



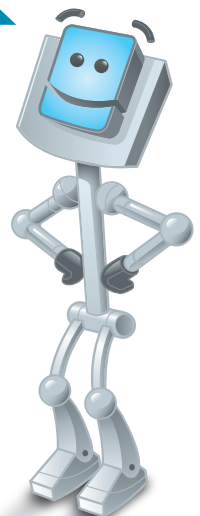
## Services

Each OSCAR system is engineered to meet project specific needs, and all panels are tested prior to shipment ensuring swift installation. Additional standard services include:

- Submittal and O&M documentations
- Commissioning and startup
- Mechanical, electrical and process training

At Xylem, our biological process experts work with consulting engineers, end users, contractors, and system integrators to ensure proper design of the entire wastewater treatment plant.

If you can't  
measure it,  
you can't control  
it - much less  
optimize it.





## Software

Selective OSCAR system control algorithms can be customized depending on the plants goals:

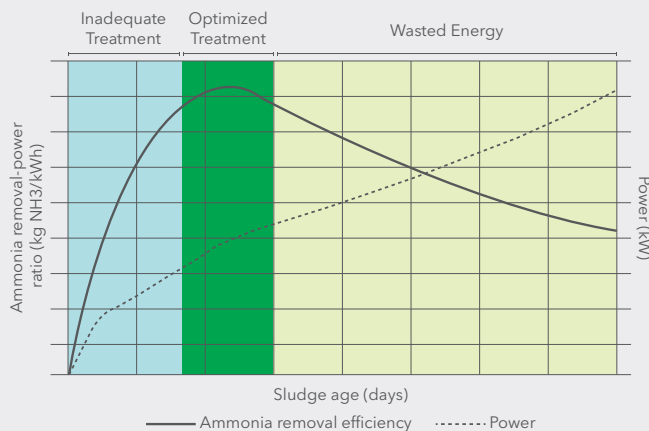
- Equipment control
- Aeration control
- Nutrient control
- Biomass control

An intuitive user interface with built-in software functionality grants a plant the tools necessary to be successful, such as:

- Imbedded electronic manuals
- Setpoint save and restore
- Translation
- Alarm prioritization and troubleshooting

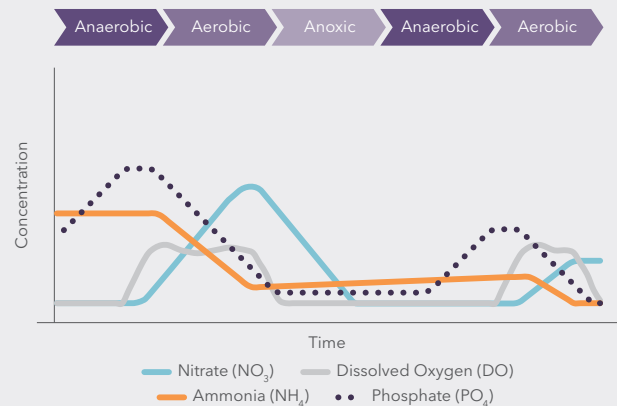
At Xylem, we know our sensors, and we understand the process. This means operators can rest easy, knowing we have developed safety nets to detect sensor or process issues, and, if critical, automatically switch to a safe mode of operation.

OSCAR system with SIMS controller



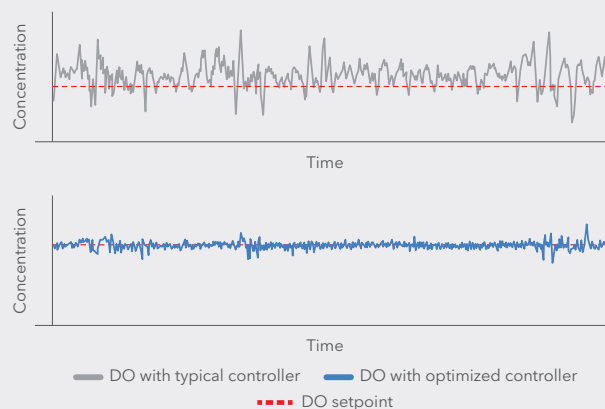
*Biomass control ensures a plant is operating at the optimal sludge age for treatment*

OSCAR system with NURO controller



*Nutrient control optimizes the conditions necessary for nitrogen and phosphorus removal*

OSCAR system with aeration controller



*Aeration control stabilizes the dissolved oxygen concentration*



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services, and agricultural settings. With its October 2016 acquisition of Sensus, Xylem added smart metering, network technologies and advanced data analytics for water, gas and electric utilities to its portfolio of solutions. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

**For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)**



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