Revolutionizing water utilities by unleashing efficiency and sustainability through open, software-defined automation

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In this critical time of global warming, water scarcity, aging infrastructure, and workforce challenges, it's essential for water utilities to evolve their operations to meet energy efficiency and net-zero-water targets.
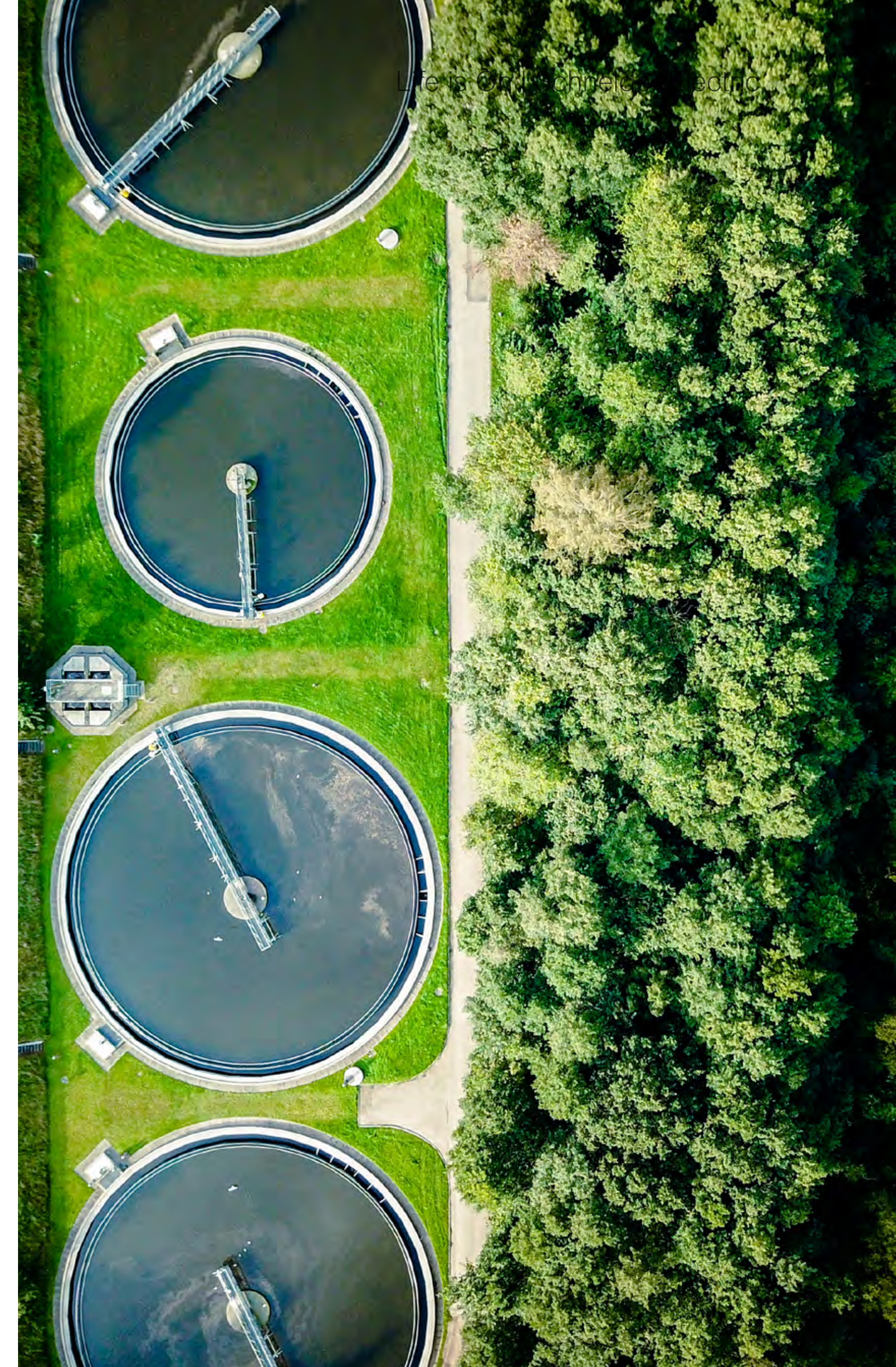
Addressing these challenges requires bold steps to accelerate the drive toward a zero-emissions future, **bridging process and sustainability** to meet end consumers' expectations for quality and traceability.

We are doing this by putting **automation at the core of digital transformation**. To deliver this digital transformation for water utilities, we need to rethink the current technological models and adopt an automation solution which gives more flexibility, efficiency and sustainability.
To fully embrace this transformation, we have joined forces with other automation leaders, pioneers, and manufacturers to drive the founding of **Universal Automation.org (UAO)**, an independent, non-profit association overseeing the implementation of a shared-source runtime execution engine. This engine forms the foundation of an ecosystem of portable, interoperable, "plug and produce" solutions, creating an entirely new category within industrial automation.

In alignment with UAO, Schneider Electric developed EcoStruxure Automation Expert, our open, software-defined automation solution. This open, interoperable, and application-centric automation solution delivers improvements in efficiency and sustainability for water and wastewater utilities which were only dreamt of a decade ago.

Open, software-defined automation

EcoStruxure Automation Expert empowers utilities to modernize without disruption—seamlessly integrating with legacy infrastructure while delivering real-time insights and scalable, future-ready control. Its open, software-defined architecture provides the flexibility and resilience needed to stay ahead of evolving demands and regulations. Designed to empower the next-generation workforce, it simplifies engineering and helps bridge the skills gap. With the ability to evolve at your own pace, you can confidently meet today's demands and tomorrow's challenges.

Three ways EcoStruxure Automation Expert can transform your automation strategy

With EcoStruxure Automation Expert, the automation architecture is more flexible and can be tailored to optimize asset performance from a process and energy perspective.

1. By adopting an application-centric approach, software is decoupled from hardware—eliminating dependency. This allows users to build, modify, and scale systems with ease. Modular applications can be deployed across multiple controllers with automatic cross-communication, resulting in improved efficiency, streamlined scalability, and lower overall costs.

2. By enabling complete lifecycle management and seamless IT/OT integration, you create a single, unified source of data across all systems. This native connectivity ensures end-to-end digital continuity, streamlines data exchange, and drives smarter decisions while eliminating costly inefficiencies.

3. By maximizing existing investments and seamlessly adopting new technologies when needed, you can accelerate your path to AI - streamlining engineering, optimizing processes, and automating low-value tasks. This allows you to make the most of your resources while keeping your system agile and future-ready.
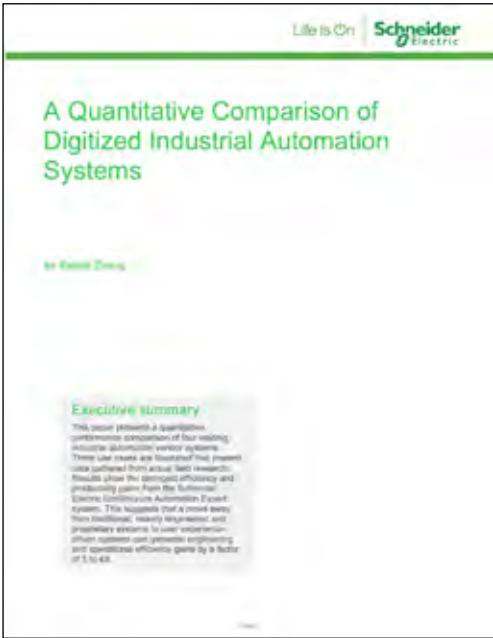
Field test: Comparison of digitized industrial automation systems

EcoStruxure Automation Expert was tested alongside three leading marketplace automation vendor offers. Independent third-party contractors with significant automation project experience across specific vendors performed engineering comparisons. Listed below are some of the key field test findings:

3X **Faster application development**

6X **Faster system level diagnostics**

7X **Improvement in system agility**

Download the full study:
[A Quantitative Comparison of Digitized Industrial Automation Systems](#)

Customer success and EcoStruxure Automation Expert

What our customers are saying

We have numerous successful integrations ranging from water pumping and process control to water and sewage systems. Our solutions empower Process OEMs, System Integrators, engineers, operators, and end users to bridge the gap between IT and OT, resulting in a hardware-agnostic and object-oriented control system.
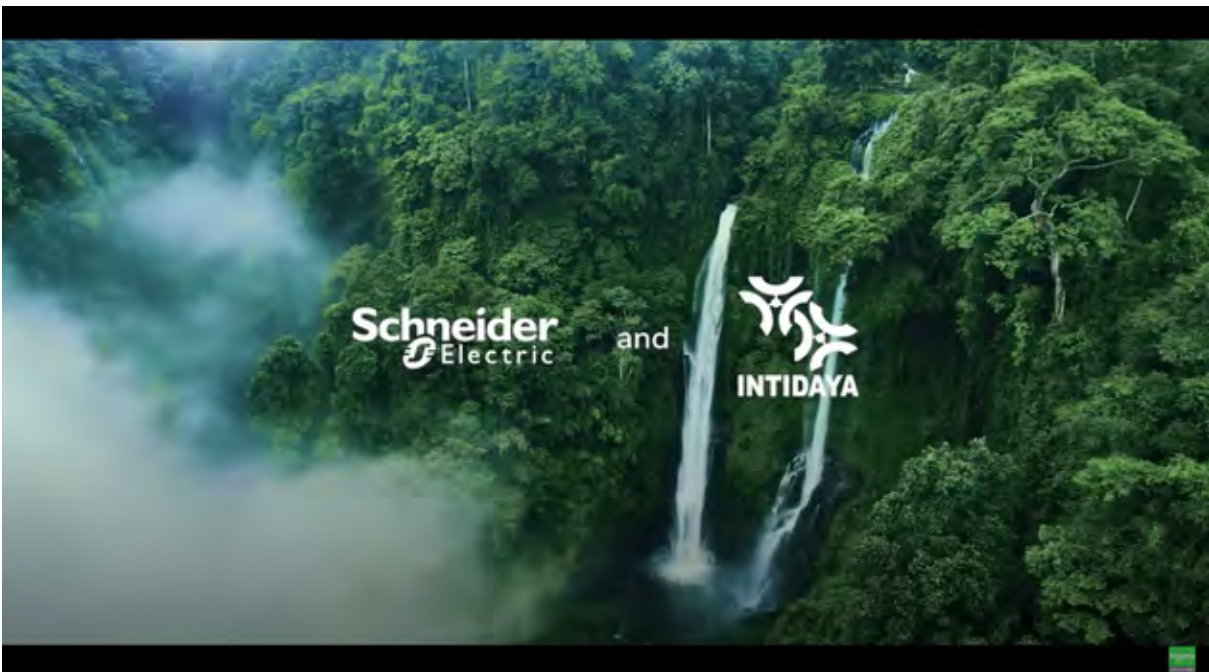
With EcoStruxure Automation Expert, a whole new world of opportunities is available for your water utilities to be more sustainable, resilient, efficient, and future-proof.

Watch the video

Learn more

Watch the video

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Discover more about
EcoStruxure Automation Expert

Simplify and accelerate water treatment efficiency and sustainability

Go to the blog

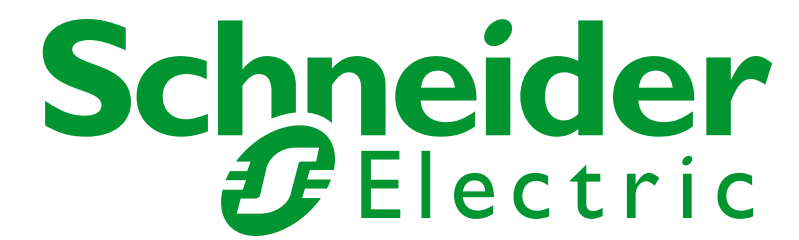Discover software-defined automation with EcoStruxure Automation Expert

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Accelerate digital transformation of the water and wastewater sector

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