EFFICIENCY

Empowering your workforce through digital transformation in food and beverage manufacturing

EcoStruxure™ for Food & Beverage

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New challenges
bring new opportunities

Changing customer behaviors, new regulations, growing scarcity of resources…
To address these challenges, food and beverage producers need to focus on
increasing business efficiency, to be more agile and flexible, while reducing costs.
Digital transformation is the way to achieve these objectives.

At Schneider Electric, we help to realize the potential of bringing your systems and
processes together. EcoStruxure, our IoT-enabled, open, and interoperable system
architecture and platform, helps increase plant and supply chain connectivity,
driving better efficiencies through improved operational performance.

By using technology to drive convergence of IT and operations, you connect the
business and greatly improve your capabilities. Digitize existing plant and integrate
modern automation and robotic systems – where it makes sense.

New challenges
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Unlock new
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Meeting the
challenges, sharing
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Increasing
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Creating new
business value

New challenges
bring new opportunities

EcoStruxure for Food & Beverage enables digital transformation at every step of your value chain for improved sustainability, efficiency, traceability. From farm to fork.

Sustainability and efficiency

Optimize your plant's footprint with improved energy, process, utilities, and supply chain efficiency, thanks to full visibility into asset data.

Food safety and consumer information

Protect consumer and shareholder value. Digital transformation allows you to track every step of the supply chain, from raw materials to the customer. And, every step of the manufacturing process, from sourcing to labeling.

Workforce dynamic

Attract younger, tech-savvy, digital-native workforce through innovation, and retain talent by breaking information silos, while enabling the right business decisions.

Delivering the brand promise

Meet customers' rising demands for quality and sustainability. Ever-changing dietary trends and environmental regulations set higher requirements for manufacturing processes and demand greater flexibility.

Operational excellence

Pinpoint inefficiencies and set new benchmarks in the face of the increasing complexity of manufacturing processes.

Total cost of ownership

Reduce CapEx while prolonging the life span of existing assets and reduce overall costs with streamlined operations and reduced energy waste.

How is technology serving up new opportunities in food and beverage?

How is technology serving up new opportunities in food and beverage?

Food and beverage manufactures are challenged to ensure high levels of profitability, product quality and compliance requirements, while delivering products faster to a market with rapidly changing demands. With the right digitalization approach for plant performance management, CapEx and OpEx pressure can be relieved by:

1. Optimizing current assets to expand the life of aging equipment, while producing high quality output at optimal energy usage levels.

2. Deploying maintenance excellence practices and improving asset reliability by utilizing reliability-centric and prescriptive approaches to efficiently use maintenance resources and reduce downtime.

Our EcoStruxure platform connects the three layers of innovation in IoT-enabled solutions – connected products; edge control; and apps, analytics & services – to help drive full IoT integration and provide you with the real-time data you need to make better business decisions.

Read our smart machines white paper

Meeting the challenges, sharing the spoils
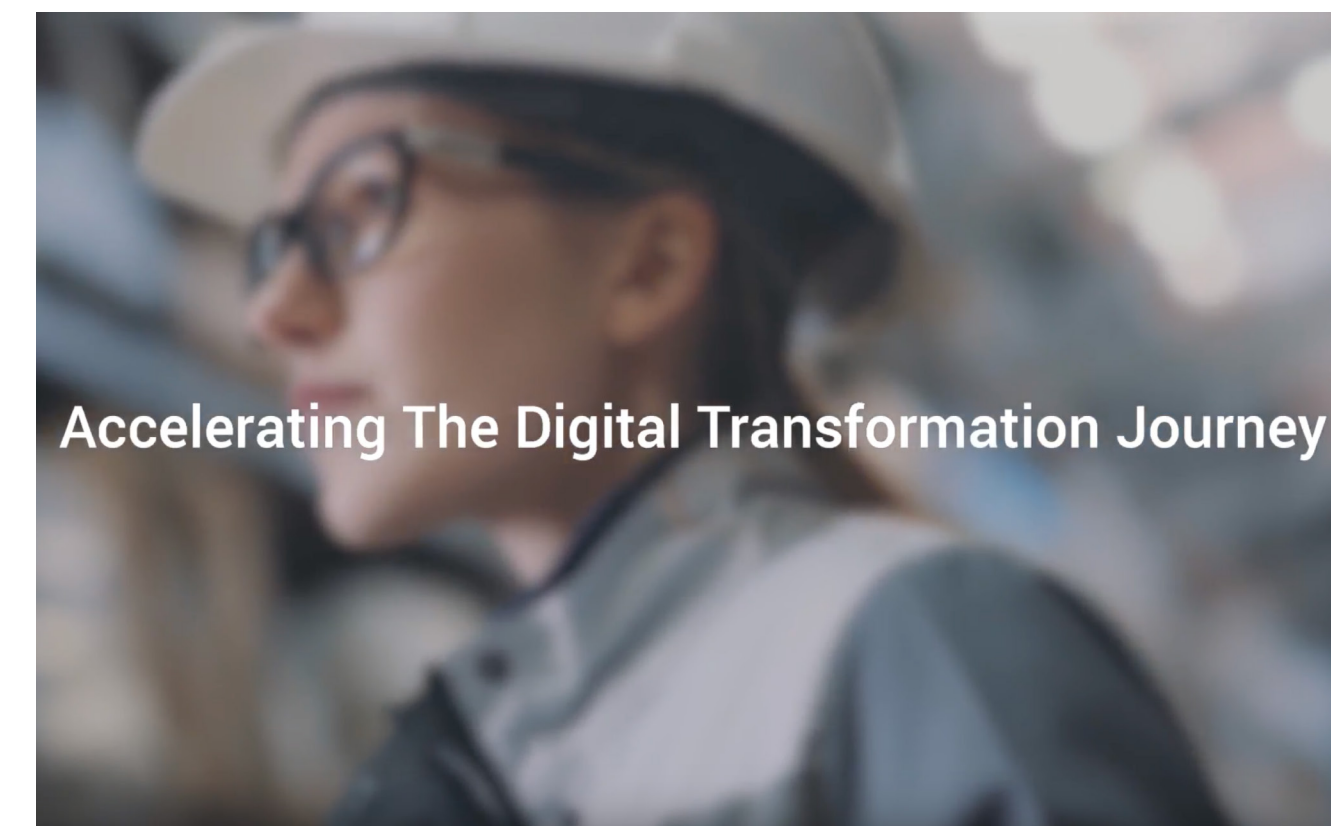
Meeting the challenges, sharing the spoils

Within the business, different stakeholders will have different challenges. With digital transformation comes the opportunity for IT and plant professionals to work together and get mutual benefits.

On the factory floor, the key considerations will include uptime, safety, and product quality. IT will be just as concerned with data collection, cybersecurity and systems integration where legacy systems are involved.

The Industrial Internet of Things (IIoT) is helping to overcome the key business issues all plant staff face, with new technologies supporting substantial improvements in production efficiency, process reliability, and safety.

New, interoperable solutions can be integrated faster and easier than outdated alternatives. In addition, advances in intelligent maintenance and monitoring enable companies to future-proof their investments, by prolonging equipment life and deferring future CapEx. But it can only happen when IT and OT collaborate.

The most successful manufacturing enterprises in the future will be those that have seamlessly integrated IT and OT where OT is actually driving the IT agenda.

Accelerating The Digital Transformation Journey

[Watch the video](#)

Equipment insights drive higher return on capital investment

Equipment insights drive higher return on capital investment

Collecting and analyzing data generated by connected devices provides visibility of your plant's processes. With the right equipment management strategy and solutions, this data can be turned into actionable insights resulting in less downtime, optimized operating costs, mitigation of human errors, improved sustainability, and a higher return on capital investment (ROCI).

Maximizing equipment uptime

As food and beverage manufacturing requires strict control of the costs to increase profitability, each unexpected stop of a production line has an impact on the throughput. The right equipment management strategy improves asset reliability by utilizing reliability-centric and prescriptive approaches to efficiently use maintenance resources and maximize uptime.

Improving operational efficiency

Enhanced equipment performance visibility gives plant staff improved operational insights to safely produce higher output levels, at optimized energy consumption levels. As an example, operational efficiency is improved down to the asset level, when enhanced digitization can analyze machine cycles down to the millisecond to identify any unwanted downtime and eliminate it. South African sugar producer RCL Foods has experienced these operational improvements when they implemented the

Watch the RCL Foods case study

Schneider Electric's investment in AVEVA gives you access to global, leading engineering and industrial software. See how we helped RCL Foods modernize an outdated DCS.

Aveva is a FTSE 100 company, 60% owned by Schneider Electric.

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Equipment insights drive higher return on capital investment

EcoStruxure solution and **increased their plant's throughput by 20%.**

Empowering workforce

In addition to presenting maintenance teams with the right information at the right time, digital maintenance enforces data and format consistency. This significantly minimizes human error by helping to locate the equipment to be serviced and guiding operators step-by-step through the entire maintenance procedure.

Optimizing energy usage

Thanks to digitization, Energy usage at the machine level is monitored and displayed so it can be better managed and optimized. With clear visibility of the devices' status and operating insights, the plant staff can keep them running at peak performance. Need proof? China's leading dairy producer, Yili Group, was able to **cut energy costs by 5% while increasing operational efficiency by 19%** thanks to a complete energy management solution from Schneider Electric.

Watch the Yili Group case study

China's leading dairy producer becomes a model of energy savings and efficiency by digitizing their production with EcoStruxure Plant.

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Plant equipment management strategy: doing more with less.

Both planned and unplanned downtime impacts productivity and final product cost. For instance, cleaning processes are strictly required for food safety regulations, even more with a higher changeover to deal with a bigger number of product variety. In these cleaning processes, efficient usage of energy, water, waste, and chemicals directly impacts the manufacturing performance. So, collecting data in real time to optimize the process becomes critical.

With a robust plant equipment management strategy, data can work for you. By turning the data into business insights, the total cost of ownership can be reduced while improving equipment maintenance and performance.

We eat our own food: see EcoStruxure in action at Schneider Electric's own Chalon-sur-Saone factory

Watch the video

Data-driven performance for improved efficiency.

Augmented reality has the promise to make a significant difference at the plant floor level. With maintenance personnel spending up to 50% of their time searching for information, AR ensures that they have the right information when and where they need it. This could be in the form of a heads-up display of real-time production data and KPIs, maintenance data and, in case of a problem, visual guidance on where the fault is and how to rectify it.

The result? Reduced downtime and improved overall equipment effectiveness (OEE) for the machine. The same technology can guide operators through set-up and safety checks.

Discover EcoStruxure Augmented Operator Advisor

With EcoStruxure Equipment Efficiency Advisor, identifying production bottlenecks in real time, allows you to act instantly to remove them. This facilitates increased production and uptime, minimized waste, and lower production costs.

Bühler explores the potential of augmented reality thanks to Schneider Electric solutions

Watch the video

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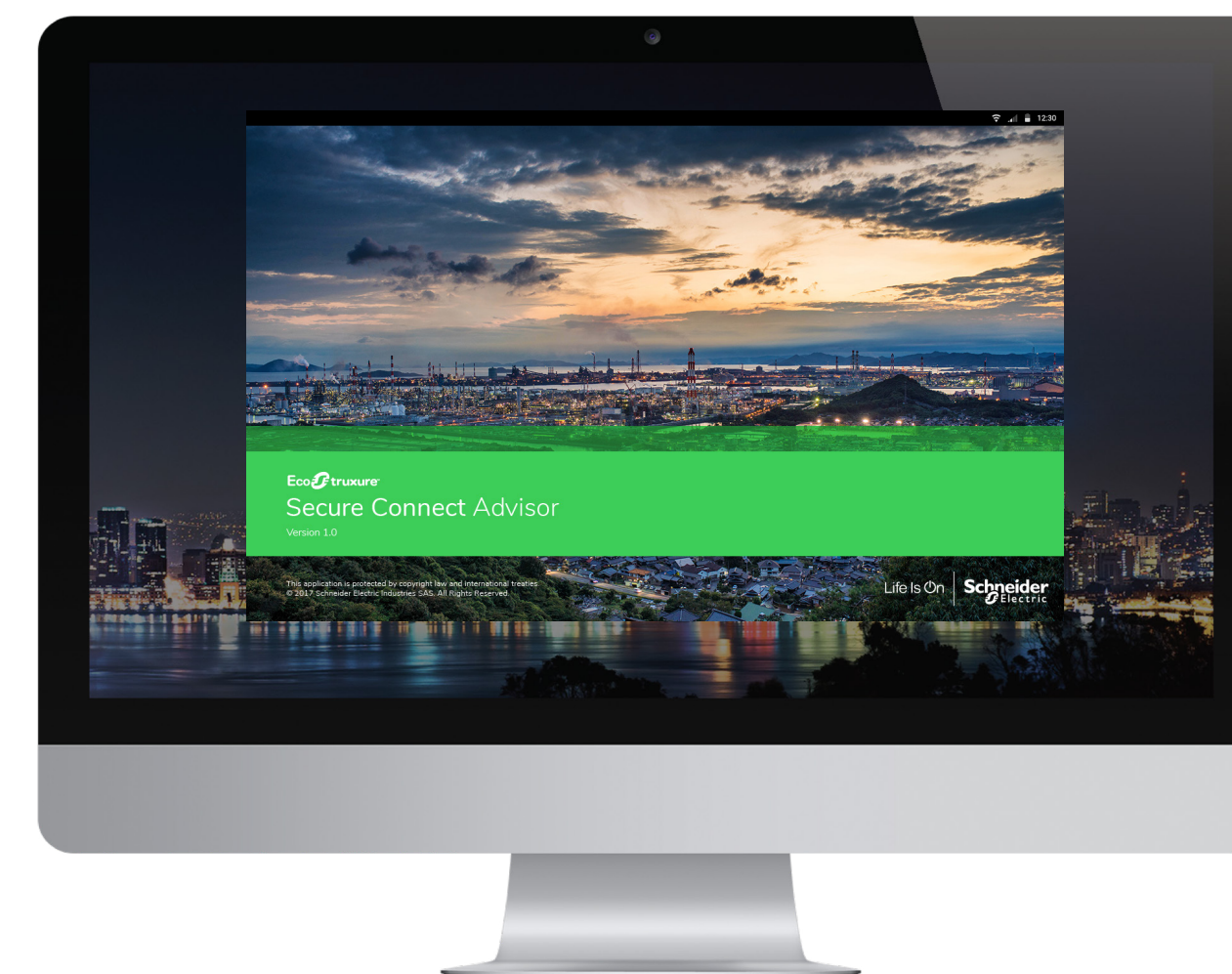
Creating new business value

Simple and smart asset monitoring connection for diagnostics and maintenance.

Upkeep is one of the biggest cost factors in every manufacturing plant. Sending out specialized personnel, often to remote areas, to fix, program, or even oversee equipment costs time and money. What if you could do it without moving from your desk? EcoStruxure Secure Connect Advisor allows to remotely access, program, and monitor HMIs, PLCs, or other connected devices from their computers or smart devices.

The tool also enables remote troubleshooting and changing manufacturing parameters, just as you would be on the factory floor. The connection is cybersecure (end-to-end) for both OEMs and end users. In some cases, this has shortened troubleshooting time from over seven days to as little as four hours.

Your secure remote access solution

Learn more

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Embracing IIoT isn't about ripping out current automation systems and replacing them with new ones. Digital transformation opportunities come where current systems are linked with enterprise planning, scheduling, and product life-cycle systems.

Utilisation of specific digital tools for maintenance excellence and asset optimization like augmented reality, secure asset connection and equipment efficiency solutions, helps manufacturers empower their people and optimize their systems.

EcoStruxure for Food & Beverage provides the connectivity you need. It helps you maximize energy efficiency and sustainability through smarter systems and real-time, data-driven decisions. At the same time, it optimizes asset availability and performance through predictive analytics and proactive maintenance. The result? **Smart, productive, flexible and profitable operations experiencing less waste and less downtime.**

In an extremely fast-moving environment, Schneider Electric has the expertise and the technologies to help food and beverage producers achieve convergence and leverage the full benefits of digital transformation.

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Find out more

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What digital transformation brings to the table for the Food & Beverage industry

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