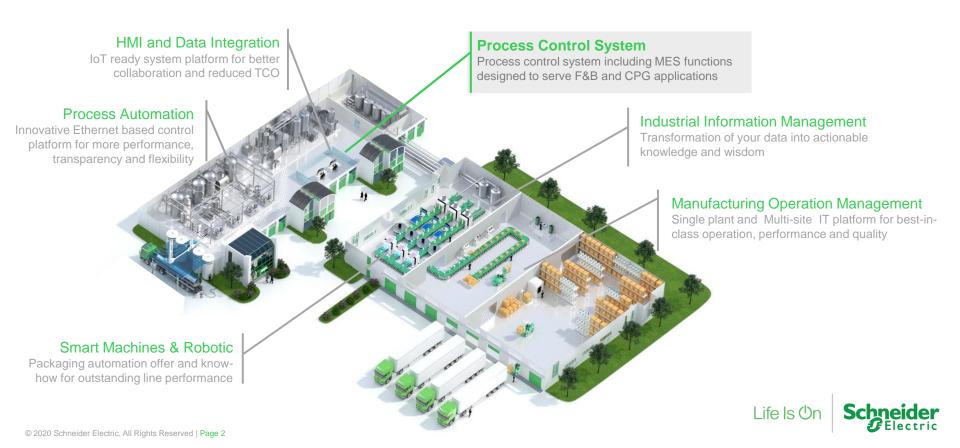


## Agile Manufacturing

Transforming operations to improve flexibility and profitability





# brewmaxx Process Control Systems. MES inside. V9 System

### Object oriented & PLC-based process control system

### The Solutions

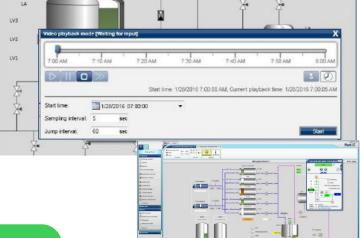
Continuous, PLC-based automation solution whose base systems include a standard process control system with integrated recipe management system for hybrid and batch processes.

- Includes MES functionality,
- One central database and on one server
- Standardized user interface, side-bar, ribbon meu and search tools
- Context sensitive user guidance
- Comprehensive alarm management
- Visu-Recorder functionality allowing to replay event for analysis and traini
- Phase controllers take care of the processes
- Object Control Matrix control the function of the objects involved
- Automation objects do the job and monitor themselves
- Full transparency down to the single object

Learn more













## Embedded know-how for the transparency of your process

### **Business value**

- Efficient engineering
  - · "Parameterization instead of programming"
  - Open and compiler less system architecture
- Lean system design and operation
- User-friendly interface, developed based on the latest usability standards
- Enhanced audit, traceability and continuous improvement



- √ No more complex PLC coding required
- ✓ Embedded process-specific libraries for simplified configuration and start-up
- ✓ Multi lingual system, available in seven languages, built upon Microsoft Standard software
- ✓ Scalable solution for single stations up to multi server systems











## Plan iT and brewmaxx

Over 2000 installations in more than 110 Countries

Brewing	<b>AB</b> InBev	Asahi	<u> </u>	DIAGEO	HEINEKEN	MillerCoors	Radeberger)
Dairies	\$\hat{3}\text{sauer}	DANONE	dmk	müller	OMIRA MICH	Pascual Tú, nuestra razán de ser	Wimm- Billing
Chemistry	□ - BASF We create chemistry	Brilluxmehr als Farbe	CLARIANT	Henkel	HILTE	maxit maxit Group	REHAU
Food	coop	GLOCKEN T BÄCKEREI	JACKLINKS	KERRY	kws	Lindt **  Maître CHOCOLATIER SUISSE DEPUIS 1845	Martin Bauer Group
Beverages	Coca Cola	ECKES granini the best of fruit	SELTERS	Niederrhein	Ensinger  de Calcium Magnatum Tour Gada	JUHAYNA	<u>Tönissteine</u> R
Pharma	BA BAYER R	FRESENIUS KABI caring for life	<b>HAKA</b> °	Heraeus	Lichtwer Healthcare	Merck	MSD Animal Health



# EcoStruxure<sup>™</sup> Process Expert



A comprehensive architecture built on secure, field-proven components

#### The solution

A Complete Solution utilizing Field-Proven components from Connected Products like (Sensors, Electrical devices: power meters, circuit breakers (compact, masterpact), motor starters TesysT, Speed Drives (Altivar family).

- Connected to Edge control: automation platform base on Modicon families.
- Operation and Engineering Server to Business Information systems.
- Navigation Services
- Alarm Management
- Sequence Of Events
- Simulation / Override / Maintenance
- Version Control
- Operational Audit Trail

Learn more

### **Business value**

Brings together the best from the PLC and DCS worlds and combines it with integrated energy management features to deliver superior value throughout the life cycle of a plant.

- Better maintenance capability to reduce downtime
- Maximizes operational profitability, safely





## **EcoStruxure Process Expert**











## Maximizes operational profitability, safely

#### **Automation Platform**



- Field-proven hardware platform
- · Scalable architecture
- Choice of controller based on your application

#### Communication



- Supports OPC for 3rd party
- Modbus, Profibus protocol for device communication
- · Ethernet backbone

### Operation



- Runtime Navigation Services
- High Performance graphics for smart and efficient operations
- · Audit trail and version control
- Alarm management

### Engineering



- · Multi-user
- Global database
- Single configuration environment for control & supervision
- · Object Oriented System

### Libraries



- Ready to use Process
   Library based on Situational Awareness.
- Segment-specific library, bringing domain expertise
- · Advance Process Control
- · Energy Management











#### **Customer Challenge**

- Have a better integration between two production lines and find bottlenecks
- Reduce Time to Market

#### Solution

- EcoStruxure<sup>™</sup> Process Expert
- InBatch
- Modicon M580
- HSBY Modicon Quantum
- Modicon X80 Distributed I/O
- Altivar Drives

#### **Customer Benefits**

- Compliance with FDA 21 CFR part 11.
- Empowering the workforce through the High performance HMI concept.
- Future-proof solution.
- Lower Time-to-Market
- Better control integration resulting in meaningful analytics and improved production
- Less need for operations and maintenance training with reduced downtime

The Results: Life is On with...Short payback

Link to Paper

Founded in 1870, Casa Granado is the oldest Brazilian cosmetics brand. Focused on premium products, Granado produces soaps, moisturizers, colognes, perfumes and other products.







#### **Customer Challenges**

- Improve productivity to meet growing market demands
- Improve accuracy in milk processing and uniformity in end product quality
- Reduce excessive plant downtime
- Limited monitoring due to manual plant, reducing operational efficiency
- · No visibility on energy consumption
- · Lack of scalability
- Inability to track operational events
- Lack of asset information
- Lack of life cycle support & maintenance

#### **The Solution**

- Scalable & flexible EcoStruxure architecture, including software, that can accommodate future expansion
- Advanced digital technologies enabling transparency, security, reliability, and regulatory compliance
- Standardization through object-based programming

#### **Customer Benefits**

- Production increased from 0.2 to 0.3 million litres per day, and scalable up to 0.5 million litres per day
- 50% greater operational efficiency
- Real-time visibility
- Increased flexibility
- Future-proof system
- Simplified operation & maintenance
- · Improved energy efficiency using consumption reports

The Results: Life Is On with... 50% increase in milk processing capacity & 50% improvement in operational efficiency

"Schneider Electric's EcoStruxure aims at addressing (industry challenges) by powering ...the dairy industry with advanced digital technologies that ensure transparency, security, regulatory compliance and reliability."

<u>Link to Paper 1</u> Link to Paper 2 Latish Babu Head – Strategic Customers & Segments Greater India Zone Aavin Dairy Indian milk cooperative promotes economic development of local farming community by procuring, processing & manufacturing milk products



\* The Schneider Electric industrial software business and AVEVA have merged to trade as AVEVA Group pic, a UK listed company. The Schneider Electric and Life is On trademarks are owned by Schneider Electric and are being licensed to AVEVA by Schneider Electric.









#### **Customer Challenge**

- High Mean Time To Repair (MTTR)
- Limited monitoring
- Visibility on energy consumption
- Process Transparency Tracking events
- Obtain asset information / Cybersecurity
- Operational and people safety

#### **The Solution**

- EcoStruxure Plant including:
- EcoStruxure Process Expert
- EcoStruxure Augmented Operator Advisor
- Magelis iPC, Altivar Drive, ITD No-Breaks
- Tesys T Ethernet / Easergy P3, LV and MV Panels

#### **Customer Benefits**

- Operation and engineering traceability
- · Reduction of operating errors
- Advanced and quick diagnosis through Hybrid DCS and Augmented Operator Advisor
- Agility to solve problems
- Asset Management and cybersecurity
- Easy maintenance and calibration of assets
- Accident reduction thanks to process transparency.

The Results: Life is On with... ... Improved
Operational and Production Efficiency
with increased flexibility

Cerradinho Bio is part of Cerradinho Par group, with operations in sugarcane, agricultural properties, logistics, gas stations and real estate projects.

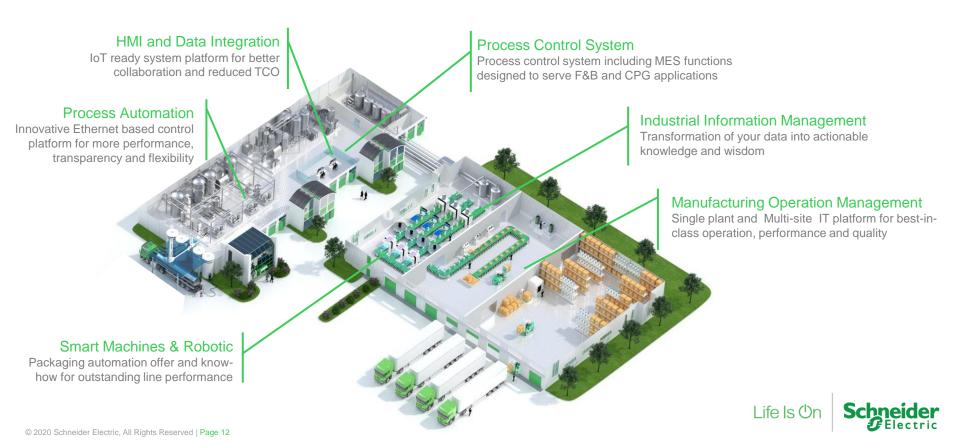
Menu





## Agile Manufacturing

Transforming operations to improve flexibility and profitability



## EcoStruxure for Food & Beverage / CPG

Agile manufacturing Boost manufacturing flexibility and efficiency

Manufacturing Operation Management

**Industrial Information Management** 

Process Control System

HMI and data Integration

Process Automation

**Packaging Automation** 

Efficient facilities Safer, more available, and greener resources

**Smart Building Management** 

Power Safety & Availability

Power Quality & efficiency

Renewable Energy & Microgrids

IT Infrastructure Management

Resilient supply chain Manage complexity and reduce logistics costs

Agriculture Efficiency & Sustainability

Suppliers Management

Supply Chain Optimization

Cold Chain Monitoring

**Product Information Management** 

Food Safety & Traceability Ensure compliance and trust across the product life cycle

**Energy & Sustainability** Reduce footprint and meet sustainability goals

**Asset Performance** Maximize return on capital expenditure

Workforce Empowerment Improve staff knowledge, productivity and collaboration

Digital Engineering Cut time, cost and risks of capital project engineering

Food Defense

Sustainability Consulting

Assessment and Consulting

Operator Training Simulator Augmented & Virtual Reality **Electrical CAD** 

**Energy Demand Services** Strategic Energy Sourcing **Enterprise Asset Management** 

**Building Information Modelling** 

**Digital Calibration** 

Condition Monitoring

Workflow Management Integrated Engineering-Design

Raw material traceability

Cybersecurity Services

Enterprise data management

**Predictive Analytics** 

Modernization services

Staff Schedule Management

**Digital Asset Visualization** 

Production traceability

Energy as a Service

Line & Process Optimization

Operator Knowledge Sharing

Life Is (¹)n



Product Identification & Tracking



Life Is On Schneider