



# Smart Manufacturing solutions

We help our customers create future-ready pharmaceutical manufacturing and biotech facilities.

CONTINUOUS PROCESS AUTOMATION



# Smart Manufacturing

## Boost Manufacturing Efficiency

### Digital Process engineering

Start your digital asset life-cycle  
Reduce time to market and improve  
operation and maintenance consistency.

### Process Automation

Innovative control solutions for single  
use, batch and continuous  
pharmaceutical production process

### Smart Machines & Robotic

High speed motion automation offer  
and know-how for outstanding  
performance

### Process Analytical Technology

A range of process analyzers and tools to support  
PAT initiative and improve product quality

### HMI and Data Integration

IoT ready system platform for better  
collaboration and reduced TCO

### Industrial Information Management

Transformation of your data into actionable  
knowledge and wisdom

### Recipe and Batch Management

Best in class solutions for management of  
flexible production process in regulated  
environment

### Manufacturing Operation Management

Multi-site IT platform for best in class operation,  
performance and quality

### Simulation & Augmented Reality

Helping you to better understand your complex  
process and take efficiency to the next level

# Process Automation

Innovative control solutions for single use, batch and continuous pharmaceutical production process



- Manufacturing facilities rely upon automated and integrated computer-controlled manufacturing systems to consistently deliver complex manufactured goods, within acceptable levels of product quality and operator safety — in a cost-effective manner.
- In a pharmaceutical and biotech manufacturing facility, there is even more at risk, with the health and lives of patients at stake.
- Inevitably, even the most advanced systems age and become potential liabilities.
- Proactively monitoring your systems and preparing for their eventual retrofit will help to protect both your facility and your patients from serious harm.

[Learn more](#)

Life Is On

**Schneider**  
Electric





# Sanofi Pasteur, France

Achieving data integrity and operating costs reduction



## Customer Challenge

- New production line to accommodate the high volume of anticipated demand
- Continuously gather information & monitor the manufacturing processes
- Avoid false alarms that causes production line to halt, resulting in downtime and lost revenues
- Move to electronic data reporting for audit trails to meet regulatory requirements

## The Solution

- Ecostruxure Foxboro DCS

## Customer Benefits

- 15% reduction in time & engineering costs High availability architecture at all operations levels – less downtime and increased reliability
- Vital solution for data record integrity
- Improvement of the maintenance operations

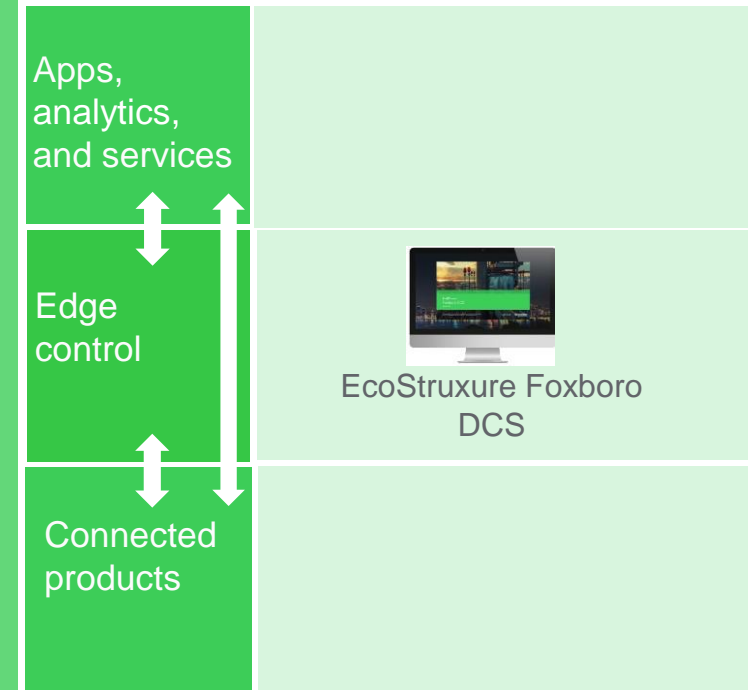
## The Results: Life is On with... 30% increase in Overall Equipment Effectiveness (OEE)

“The Schneider Electric solution has met all Sanofi’ Pasteur’s expectations by providing easy migration with the existing system, high availability and a secure architecture to store and manage all the facility’s technical data.”

Business Development Manager  
Life Sciences & Systems Manager  
Schneider Electric

World’s leading producer of vaccines, producing 1.6 Billion doses of vaccines per year.

EcoStruxure™ For Life Sciences



Paper

Life is On



# Global Biotechnology Company, US

Retrofit Pharmaceutical Manufacturing Automation System



## Customer Challenge

Unpredictable downtime risk and low performance with aging hardware and high maintenance cost

- DCS system with end-of-life in Oct 2020
- HW, SW and Networks have limited capacity
- Spare parts scarcity and exponential price rise
- Certain third-party components no longer available
- Difficult to find skilled technical support and services

## Solutions

Migration tool to Modicon M580 with very limited re-engineering; access risk and implement strategies for fast roll-out and lower downtime cost

- 100% like-for-like plug-in solution of current validated control logic software with same code structure and runtime behavior
  - Limited validation costs
  - Zero re-training of personals
  - Minimum impact on verticals such as HMI, Batch Manager, Historian and MES
- Limited downtime and zero cabling errors with reuse of existing I/O terminals Automated I/O Mapping
  - Reuse of terminal assemblies to avoid re-cabling on site
  - Automatic generation of cable instructions

## Customer Benefits

- 20M\$ savings in Validation expected
- Keep unaltered all SOPs, Trainings and all personnel knowledge on the process, debugging and coding
- Typical replacement of an individual controller in 20 minutes and full facility operation was restored in 2 hours

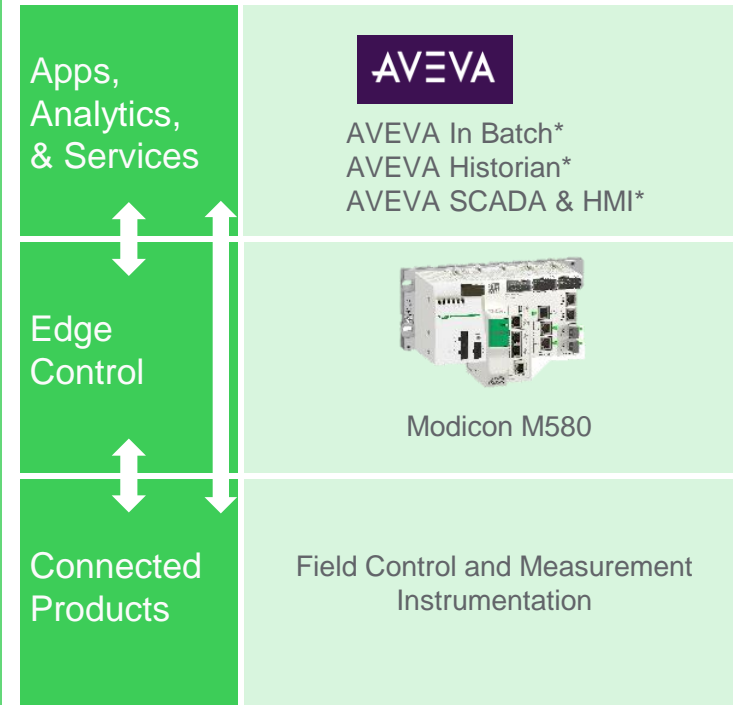
## The Results:

Life Is On with... Groundbreaking advancement in automation software engineering **reduced retrofit risks and costs, and decreased unplanned downtime by 95%**

New

Biotechnology facility, FDA licensed for production of seven vital life-extending drug products

Eco<sup>2</sup>truxure™ For Life Sciences



\*The Schneider Electric industrial software business and AVEVA have merged to trade as AVEVA Group plc, 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.

Life Is On





# Raylo Chemical, Canada

Improving pH measurement accuracy

### Customer Challenge

- Improve process efficiency & batch yields
- Reduce equipment and maintenance costs
- Improve efficiency of the manufacturing process, specifically pH measurement within caustic solution without impacting company bottom line

### The Solution

- Foxboro Measurement & Instruments

### Customer Benefits

- Accurate pH measurement in demanding application, accurate to  $\pm 0.03$  pH units
- Time saving - 3 hours time for pH adjustment versus 18 to 24 hours previously
- Quality assurance with Less sampling: only one sample needed versus 40 samples previously

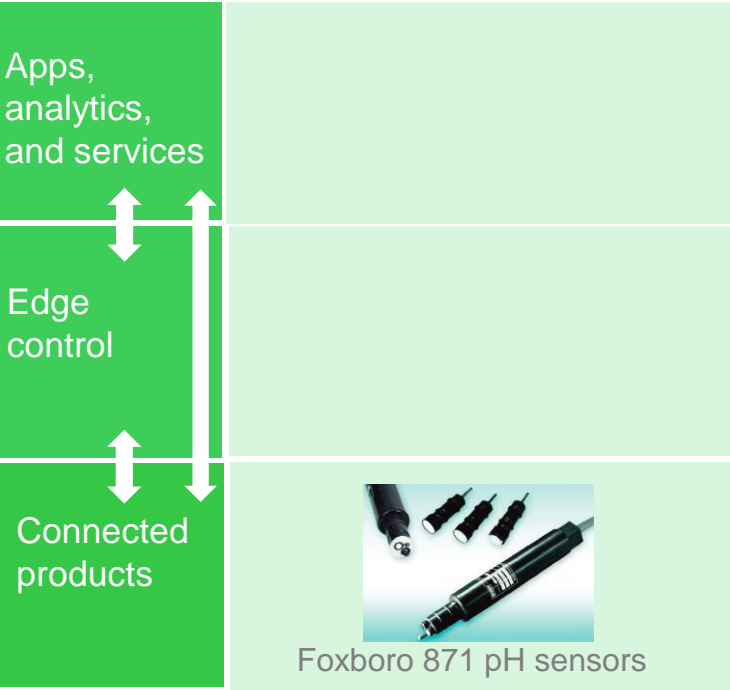
### The Results: Life is On with... CGMP & FDA regulatory standards compliance & certification

“ We found many vendors that offered quality sensors, but Foxboro was the only one that could provide a robust design that could stand up to all the reagents and solvents in our solutions.”

- Rob Pastushak  
Senior Technical Supervisor of  
Pharmaceutical Manufacturing

40-year history of custom manufacturing active pharmaceutical ingredients and advanced intermediates for innovative pharmaceutical and biopharmaceutical companies

EcoEtruxure™ For Life Sciences



[Link to Paper](#)

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