PROFITABILITY

A real-time approach to profitability allows businesses to dynamically adjust financial performance, resulting in improved efficiency, sustainability, and business performance

se.com/industrial-automation-solutions

Life Is On | Schneider Electric

Table of contents

- Do you need built in reporting and analysis based on reason codes for immediate productivity?

- Do you want to buy software as bundles to streamline procurement?

- Do you need a solution based on a model-driven approach to repeatable, scalable line performance?

- Do you want tight integration between bundled software applications and Modicon edge control thanks to Asset Link and communications?

Line performance management

Solution architecture
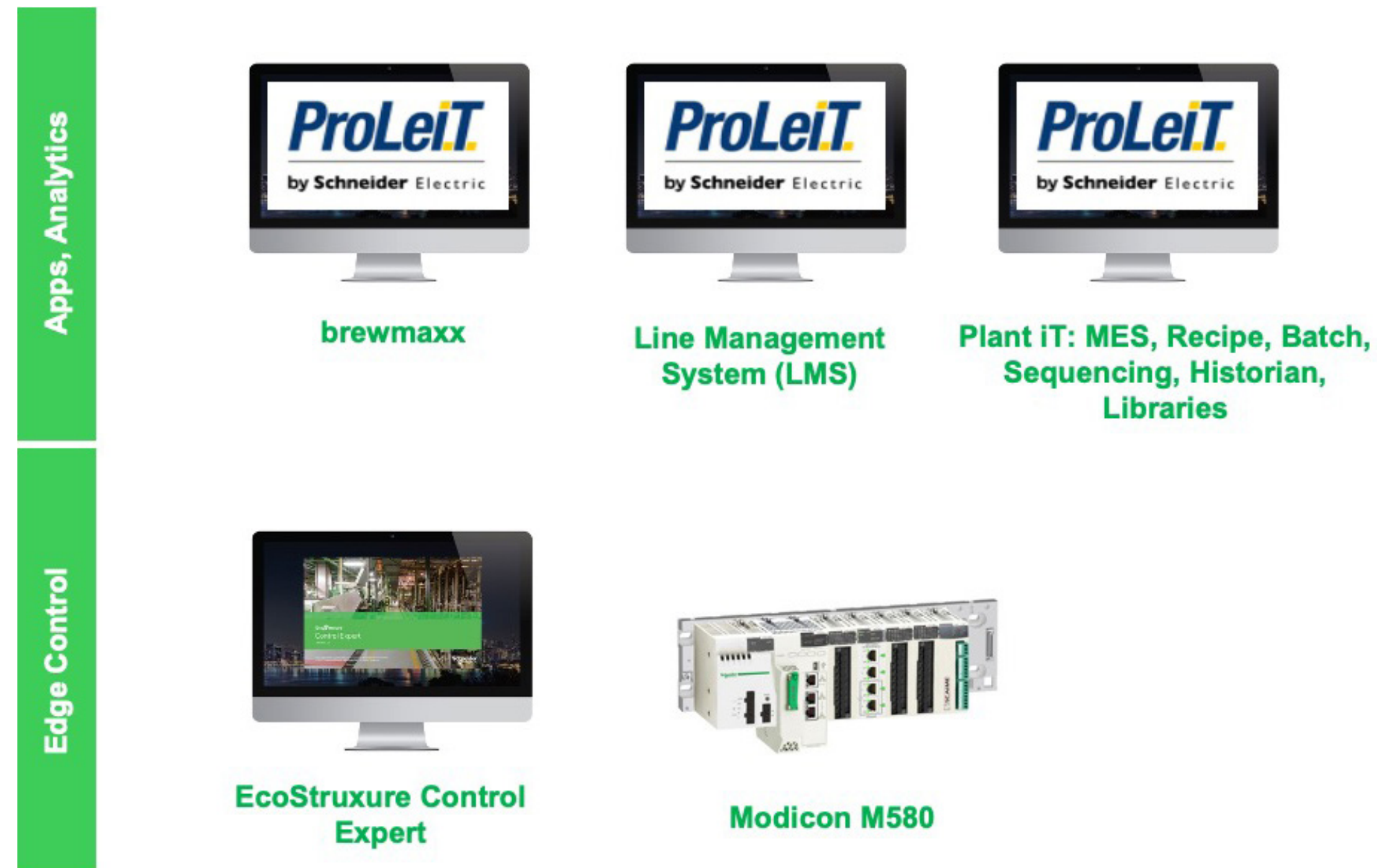
Turnkey solution for OEE, uptime, and line performance management. Subscription-based mode available to reduce time to see value in Consumer Packaged Goods line performance.

Why it matters?

- Reduced time to set up lines and configuration for fast time to value
- Helps with production volume increases
- Provide relevant dashboards to make the right decision at the right time to increase production performance
- Allows operators to focus on production
- Remove bottlenecks, reduce downtime, increase availability, access process metrics for both automated and manual lines
- Lower scrap rates, improved first pass yields for better quality

Maple Leaf Foods Line performance management

Customer challenge
Operating 25 sites in Canada and the United States, Maple Leaf Foods needed to implement a standardized automation solution through a scale-up approach for their high-quality products.

The solution
Line performance standardized each production site with real-time and instant data. The solution was easy to understand, implement, and integrate for the business management team.

Results
- An automated quality management solution

- Real-time data

- Easy integration with current ERP (SAP)

A leading consumer protein company making high-quality products

"Our approach is to design an automation system that is flexible enough to deal with day-to-day variance."
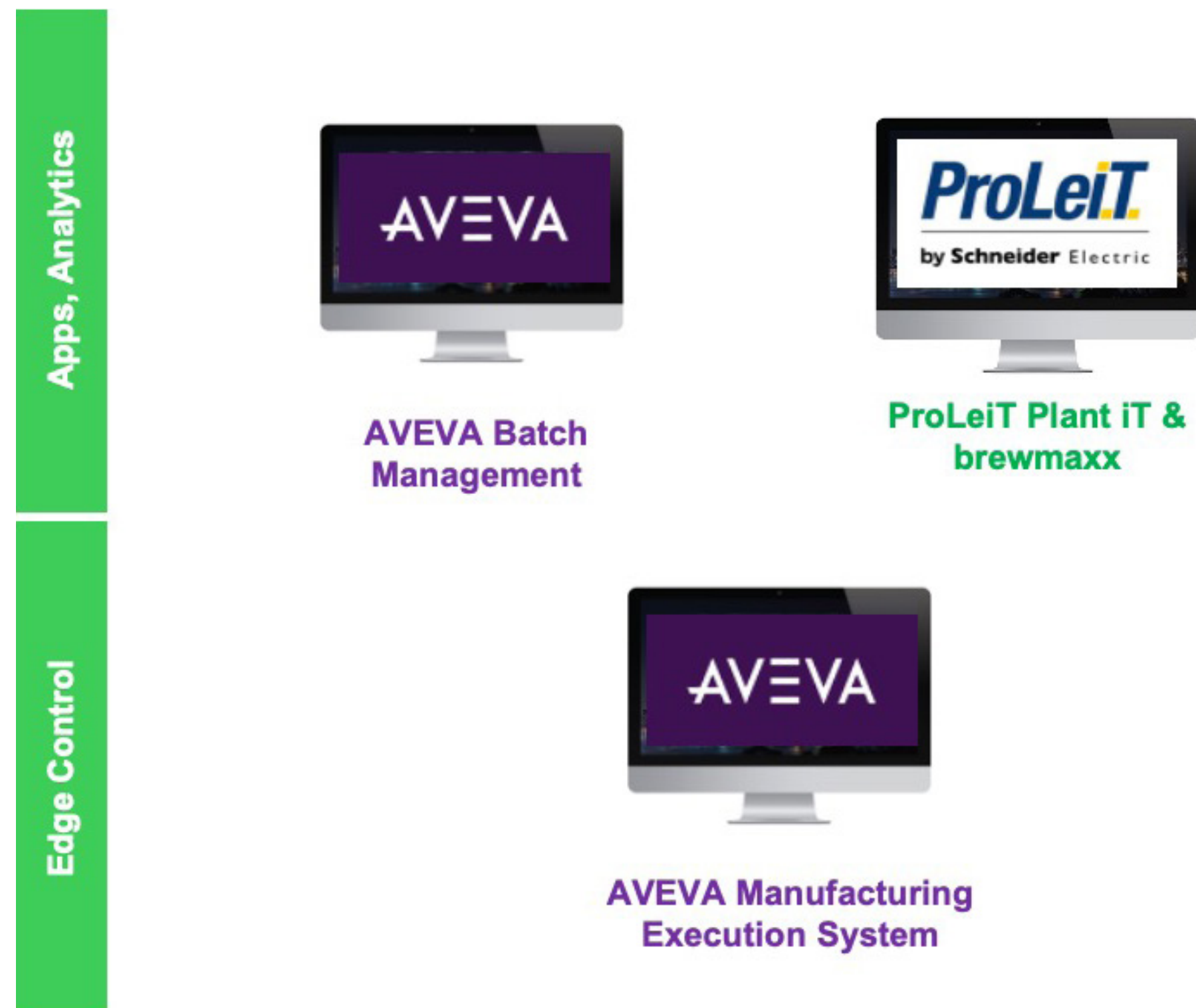
Dave Eckart
Director of Automation

Watch Video

- Do you need data accuracy and consistency between manufacturers, retailers, and consumers to generate trust and transparency?

- Do you need upstream ingredient information, raw material tracking and certification, and supplier mapping?

- Do you need plant traceability solutions including product information, serialization, and aggregation?

- Do you need downstream track and trace, quality assurance, and food safety recall abilities?

End-to-end traceability

Solution architecture

Apps, Analytics

AVEVA Batch Management

ProLeiT Plant iT & brewmaxx

Edge Control

AVEVA Manufacturing Execution System

Connecting, collecting siloed data, and checking data accuracy and integrity with smart applications along your supply chain from incoming raw materials to point of sales.

Why it matters?

- Provide mapping of all suppliers and sub-suppliers, to collect information such as origin of ingredients and to check certificate compliance
- Enables track and trace of each item as it move along the Supply Chain
- Enables transparency, providing visibility of information related to finished goods
- Essential for food investigations, crucial in global food trade and to maintain trust of end-consumers
- Mandatory to build a credible supply chain, and to differentiate brand

Fruit and dairy processor end-to end traceability

Customer challenge

With over 5,000 products, this customer required a consistent way to manage product references between different entities across 24 countries.

They needed to efficiently share product information across multiple retailers in a multi-channel environment.

The solution

Schneider Electric Product Information Management (PIM), centrally deployed across 24 countries.

Results

• 20% increase in data accuracy

• 50% reduction in labor costs

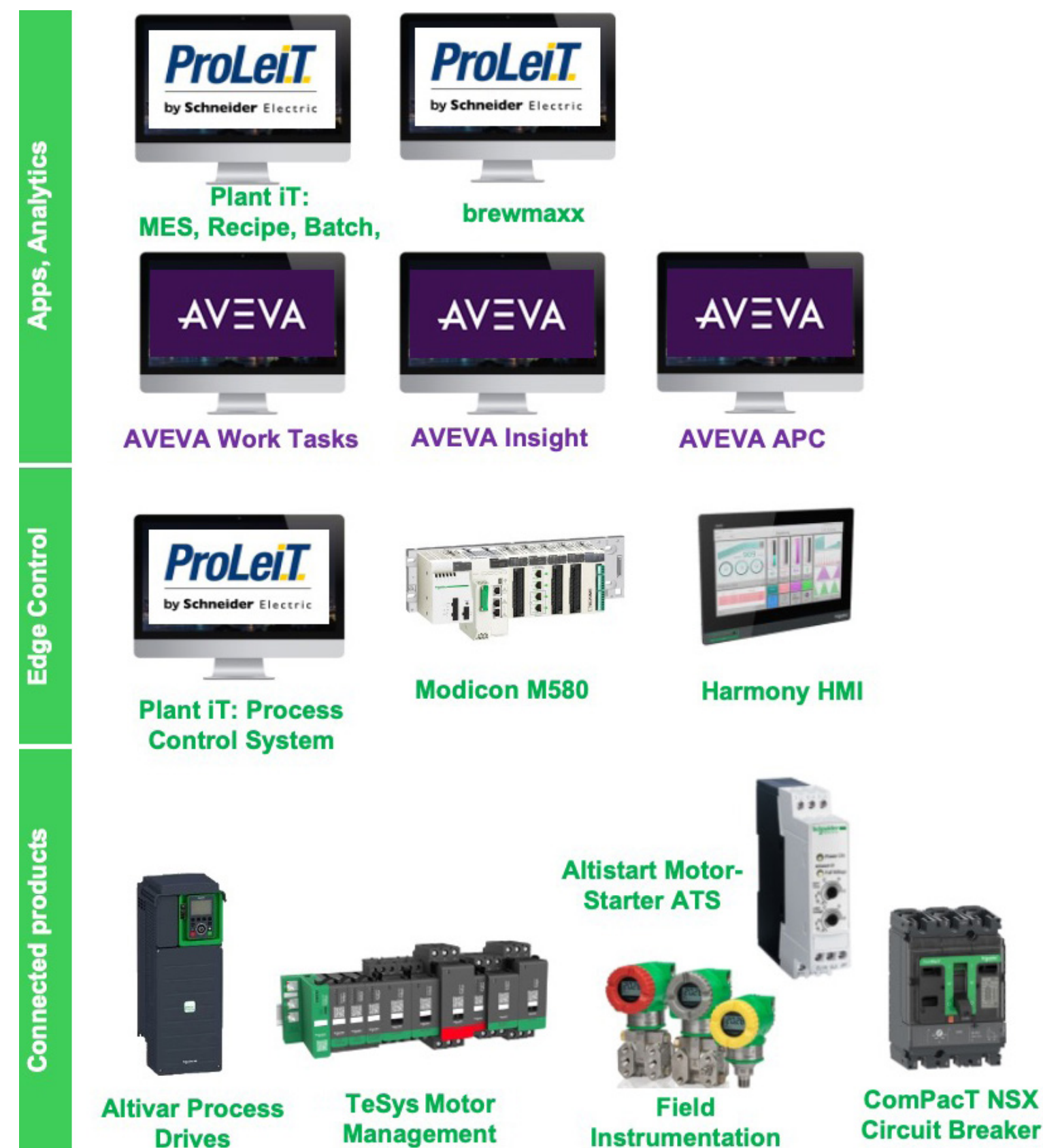• Reduced costs and errors linked to product data management

Learn More

Reduced time to market with faster, more efficient data exchange between key.

- Could you benefit from the improved quality, traceability, and asset productivity that comes from a single process control system for recipe, batch, route management, and MES functions – all available via a standardized user interface?

- Do you need a flexible, open control system which allows you to efficiently optimize processes?

- Do you need to reduce time to market and improve engineering efficiency with a control system that replaces programming with object-oriented parameterization?

- Do you need a system that allows you to make changes without stopping production?

- Do you need to replace non-value-added engineering with ISA S88 compliant bulk engineering, so your staff have more time to focus on innovation?

Specialized brewing and liquid food solution

Solution architecture

Apps, Analytics

Plant iT:
MES, Recipe, Batch,

brewmaxx

AVEVA Work Tasks

AVEVA Insight

AVEVA APC

Edge Control

Plant iT: Process
Control System

Modicon M580

Harmony HMI

Connected products

Altistart Motor-
Starter ATS

Altivar Process
Drives

TeSys Motor
Management

Field
Instrumentation

ComPacT NSX
Circuit Breaker

A state-of-the-art specialized process control system for plants with recipe, batch, and MES embedded to drive. faster design/ commissioning, increased operational efficiency, and reduced OPEX.

Why it matters?

- Reduce engineering cost and commissioning time
- Get the most from your investment in production equipment. Work with a team of experienced industry experts who know the best ways to optimize process agility, efficiency, and sustainability
- Access our global network of partners – get the support you need wherever in the world you do business
- Dedicated library of industry programming objects drive standard, uniform, best in class engineering solutions

Dairy supplier in Germany
Agile manufacturing plant with production flexibility

The worldwide dairy industry is experiencing rapidly changing consumer demands that are driving changes in purchasing behaviour and the need for greater product variation.

The customer wanted to grow by expanding operations and adding a dairy plant to better serve new markets in Asia, the Middle East, and Africa.

Flexible filling technology was required, so a wide range of aseptic packaging could be offered to better serve the increasing variety of market needs.

Schneider Electric's extensive industry knowledge in the industry helped us to understand the customer's needs and effectively support architecture and design. A specialized brewing and liquid foods solution is a complete single-source approach based on ProLeiT and AVEVA software. A close partnership with the process OEM was key to project success.

By deploying EcoStruxure Plant, the customer successfully launched a new dairy plant with the capacity to process more than 800 million liters of milk per year. This agile manufacturing plant has the production flexibility to support the company's growth targets for years to come.

Learn More

- Yields 800 million litres per year

- Flexibility needed both now and into the future

- Strong, successful partnership between customer, process OEM and Schneider Electric

- Do you need to monitor and track fuel consumption and stock with a telemetry solution built from commercially available products that have been tested and validated in real projects?

- Do you need to monitor fuel stock and consumption with wireless instrumentation?

- Do you need complete, accurate fuel visibility and reconciliation (tank levels and fuel dispensed to mobile assets)?

Fuel management solution

Solution architecture

Edge Control

Harmony HMI Modicon M340 **EcoStruxure Geo SCADA Expert** **SCADAPack RTU**

Connected products

Accutech Wireless Instrumentation

Solution to monitor & control fuel consumption in open pit mines to reduce the operating costs.

Why it matters?

• Allow better informed decisions that will increase mobile asset performance, reduce fuel consumption and losses, and improve overall profitability

• Realtime accounting: fuel inventories, purchases, and usage per asset

• Improve data accuracy and accountability

Copper Mine Fuel management

Customer challenge
This U.S. copper mine, in a very remote location, needed to improve the tracking reliability of their own fuel use and fuel supplied to their contractors.

A significant amount of fuel was unaccounted for each month resulting in unrecovered costs. It was also not possible to reliably track fuel use by vehicle or manage fuel dispensed and storage levels. Other management solutions had failed to deliver results.

The solution
Through telemetry supervision with Geo SCADA™, Accutech™ wireless sensors and PLCs, Total Power deployed a complete and accurate fuel visibility and reconciliation system.

Results

- Increased accountability for up to 100,000 gallons of fuel resulting in more accurate cost recovery from 3rd party users
- 9% increase in data accuracy

Learn More

"The solution is revolutionizing a very archaic industrial practice. This will completely change the way fuel and other consumables are managed in industrial operations."

Boris Dantus, Vice President, Total Power

- Do you need a powerful cloud tool solution to provide real time contextual information?

- Do you need an easy scalable deployment from one to all plants?

- Do you want to increase operators' efficiency?

- Do you want to enable visibility and interoperability across enterprise systems?

- Do you need to deploy dashboarding combined with Analytics Business Intelligence to your plant and make your operations more efficient and profitable?

Flexible dashboard

Solution architecture

Apps, Analytics

AVEVA Insights

Edge Control

Harmony P6

AVEVA System Platform

EcoStruxure Machine SCADA Expert

EcoStruxure Data Expert

Digitize production management and leverage multi-sites plant production for efficiency and profitability. Flexible and scalable IOT platform aggregating all the operational data and business process flow to support business intelligence for manufacturing line or plant.

Why it matters?

- Provide an opportunity to drive business transformation becoming a source of new competitive advantage
- Clear real-time insights on operating conditions to decide priority action plan to improve efficiency in all domains.
- Faster deployment, software costs reduction, company scalability
- Break the silos and facilitate people collaboration
- Insight into industry best practices.
- Improve consistency across different team
- Simple & intuitive usage for people

Schneider Electric worldwide factories
Standardized Control Tower for Manufacturing for Schneider Electric Plants

Deployed EcoStruxure solutions for manufacturing in **200** of our sites

Reduced energy costs **10-30%**

Reduced maintenance costs by **30-50%**

As a manufacturing solutions provider, Schneider Electric uses, tests, and implements the same solutions we recommend to customers. To improve our competitiveness at all our plants around the world and meet escalating demand, we strive to increase production capacity.

To do so, it's critical that we increase plant uptime, optimize plant efficiency, and empower our workforce of over 128,000.

We have a wide range of different manufacturing processes where complexity must be translated to simplicity. Processes need to be simple enough for anyone to manage.

The solution must support processes with different levels of automation from all-manual assembly lines to a fully automated process.

A manufacturing control tower has been developed as the scalable IOT-based manufacturing efficiency system for Schneider Electric plants.

This has led to multi-site operating insights, issue and root cause analysis based on multiple inputs and KPIs, and a better understanding of process situations for better decision making and customer satisfaction.

Learn more

Life Is On | Schneider Electric

To learn more about real-time approach to profitability allowing businesses to dynamically adjust financial performance, resulting in improved efficiency, sustainability, and business performance visit

se.com/industrial-automation-solutions