Synaptic Business Automation
Synaptic Business Automation underlies a process of co-innovation and collaboration with customers that leverages Yokogawa’s domain knowledge and digital automation technologies to create sustainable value.

Synaptic takes its name from the synapse, a structure in the nervous system that plays a role in the transfer of signals to other parts of the body. *With Synaptic*, we help customers create new value by
connecting and integrating everything such as data, organizations, business processes and supply chains with domain knowledge and digital automation technologies, like neural networks.

*With Business Automation*, we co-create value with customers by improving their business performance through optimization of supply chains and operations, and maximization of asset performance through co-innovation and digitalization.
The Value of Synaptic Business Automation

Continuous Value Creation Cycle

Provide the key solutions that enable a continuous value creation cycle, which positions Yokogawa as a reliable and trusted partner for challenges both within and beyond the four walls of the plant, including the supply chain.

The key aspect is Yokogawa’s ability to not only provide offerings related to conventional automation and applications, but also deliver comprehensive solutions from sensors to enterprise.

**Identify**

Define potential improvement areas across the customer’s entire business processes and resources.

**Create & Implement**

Design and deploy optimal solutions at the customer’s sites, based on the potential areas of improvement outlined in the ‘Identify’ phase.
Synaptic Business Automation focuses on creating sustainable value for customers through co-innovation and collaboration. The solution’s primary focus is to help customers realize profitable and sustainable growth. The first step in the process is to understand the potential value of customers’ business.

Synaptic Business Automation creates value for customers in three ways.

**Resilient Operation**
Manage customers’ business risks with improving operational resilience. We help customers adapt more flexibly to changes in areas such as health, safety, security, and the environment (HSSE), organizational optimization, and regulatory compliance.

**Optimized Production**
Optimize the total expenditure (TOTEX), components of capital expenditure (CAPEX), and operational expenditure (OPEX) over the entire lifecycle of a plant, and improve reliability. Also, directly create value by solving issues and optimizing operations throughout the supply chains, thereby enhancing productivity and profitability.

**Business Innovation**
Work with specific customers to create new business models that foster manufacturing excellence by methods like supplying cloud-based services that drive collaboration with their customers and suppliers, and introducing environmentally friendly manufacturing practices that are essential for a sustainable society.

**Continuous Value Creation Cycle**

- **Define potential improvement areas**
  - Strategic management consulting
  - Automation solution consulting
  - Profit improvement program (opportunity identification workshops)
  - Co-innovation environment

- **Design and deploy solutions**
  - Process modelling & simulation
  - Supply chain and operations optimization
  - Profit-driven operation
  - Energy management & optimization
  - Modular procedural automation
  - Main automation and information contractor
  - Agile project execution

- **Operate**
  - Lifecycle services
  - Data analytics solutions
  - Cyber security management
  - Secure cloud services
  - Remote control & management
  - Supplier/customer collaboration

- **Maintain value creation cycle**
  - Strategic management consulting
  - Automation solution consulting
  - Profit improvement program (opportunity identification workshops)
  - Co-innovation environment

**Operate**
Perform safe and stable operations across the customer’s entire business processes and resources.

**Sustain & Improve**
Maintain the solutions, helping the customer drive continuous improvement and sustained performance excellence.
Yokogawa Capability

- Integrated automation solutions
- Best-in-class automation technology & knowledge
- Strategic consulting for operations management
- Leading simulation technology for the hydrocarbon industry

Industrial Knowledge
- Secure cloud services
- Supplier/customer collaboration
- Energy management & optimization

SOTEICA VM

Continuous Value Creation for Customers

400+
plant-wide profit improvement programs executed

1B USD+
profit improvement achieved with us
Yokogawa acquired the consulting methodology to improve customers’ profits and business performance with domain knowledge by the acquisition of KBC. KBC is all about excellence in the energy and chemical industry and provides leading software and expert services, powered by the cloud, to ensure that process operations achieve their full potential. Industrial Knowledge and SOTEICA VISUAL MESA were integrated with KBC to strengthen the energy management consulting service and drive optimization of plant-wide production processes through cloud services. The combined synergies also facilitate the integration, collaboration, and optimization of customers’ entire value chain. The solution integration led to the creation of a differentiated value proposition: Continuous Value Creation Cycle.