



OpreX™ Control and Safety System

The CENTUM VP R7 Journey

Integrated Production Control System
The Next-Generation CENTUM VP Model

Unchanging Value and Innovation

CENTUM Drives Autonomous Operations

To realize autonomous plant operations, Yokogawa built CENTUM VP R7 based on the concept of unchanging value and innovation, while continuing to address customer challenges.

Unchanging Value

CENTUM has been reinforced with robust cybersecurity and comprehensive engineering and services—without impacting its reliability, stability, and continuity. Yokogawa continues to build a resilient foundation for safe and secure plant operations from the past to the present, and into the future.

Reliability, Stability, Continuity

- Continuously delivering CENTUM's enduring value to enable long-term, uninterrupted plant operations. Maximizing the value of our customers' assets through flexible design for system compatibility and continuity.

Robust Security

- Maintaining safe and secure plant operations by continually providing up-to-date security measures. Supporting continuous production operations through an ICSS(※) architecture and robust security.
※Integrated Control and Safety System

Comprehensive Engineering and Service Network

- Minimizing opportunity losses through customer-centric lifecycle support.

Innovation

CENTUM is paving the way for future plant operations by driving the transformation from automation to autonomous operations. By optimizing the entire system, it strengthens operational safety and security, increases energy efficiency, and eases the workload on operators.

Expanded Scope of Control and Monitoring

- CENTUM securely integrates a wide range of fragmented data within the plant to enable further expansion of control, operation, and monitoring through integration and collaboration across equipment—with the latest communication interfaces.

Predictive Detection through Process Condition Monitoring

- By extracting and identifying process-specific events from the gathered data, CENTUM enables early detection of deviations from expected conditions. This approach supports plant operations in taking action with change anticipation.

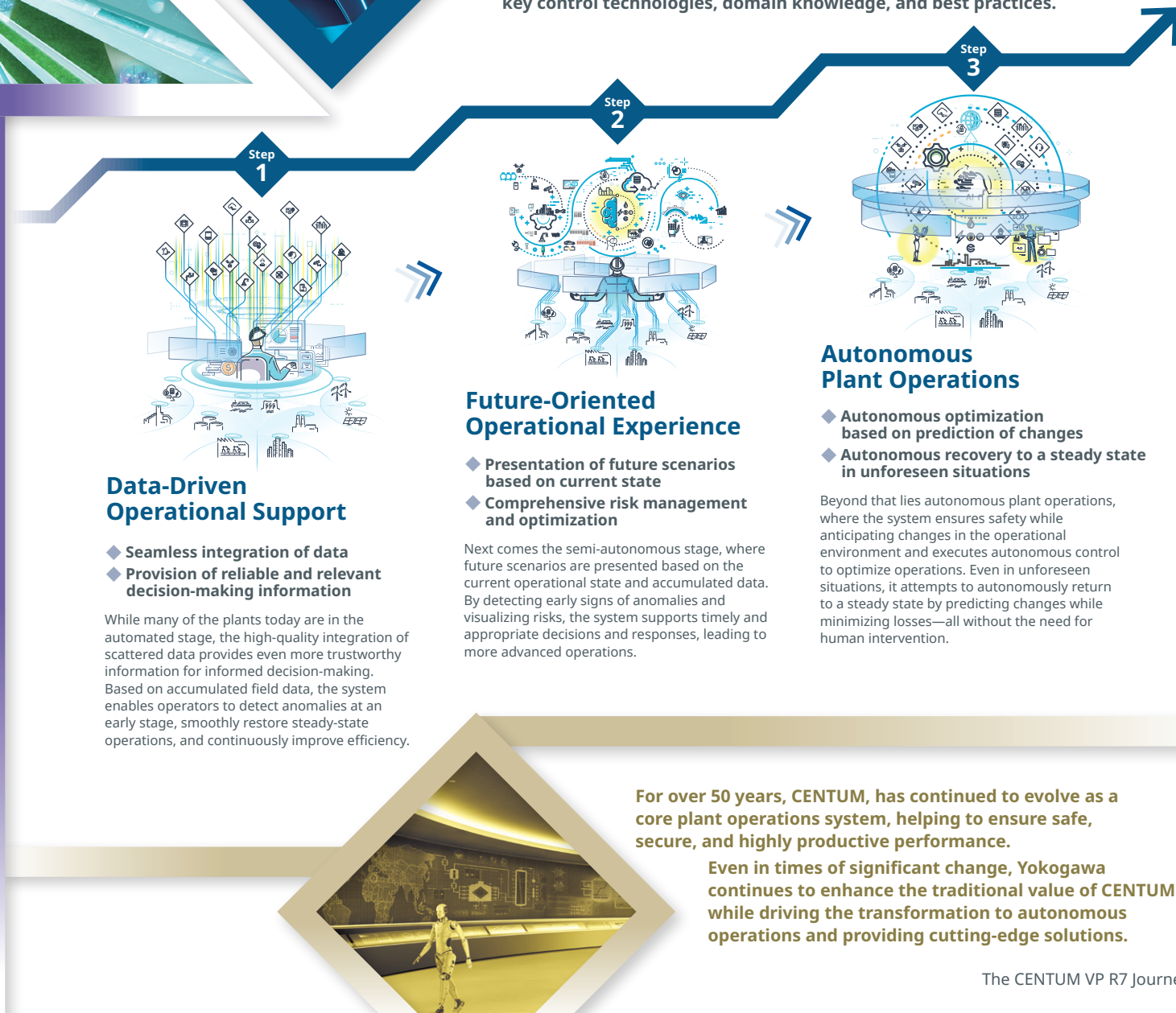
AI-Driven Plant Operations that Leverage Domain Knowledge and Know-How

- By presenting future scenarios based on operational expertise and securely implementing autonomous control AI, CENTUM creates a new style of plant operation that merges experiential knowledge with AI technology.

Shaping the Future with CENTUM

Autonomous operations are an essential approach to optimizing and sustaining plant performance. By leveraging accumulated operational data and predictive insights, the system can autonomously achieve the best balance of quality, cost, and delivery. This evolution leads plant operations to intelligent decision-making, enabling flexible adaptation to environmental and market changes while maintaining stability and competitiveness by systematically passing on the knowledge and expertise of skilled operators.

CENTUM realizes autonomous plant operations in stages by continuously and progressively evolving the manufacturing system through the integration of key control technologies, domain knowledge, and best practices.



For over 50 years, CENTUM, has continued to evolve as a core plant operations system, helping to ensure safe, secure, and highly productive performance.

Even in times of significant change, Yokogawa continues to enhance the traditional value of CENTUM while driving the transformation to autonomous operations and providing cutting-edge solutions.



Yokogawa will realize autonomous plant operations by combining
its domain knowledge and cutting-edge technologies.
Furthermore, by delivering technologies for the industries of tomorrow,
we will strive to play an active role in creating a more prosperous and sustainable society.

Always with You, Yesterday, Today, and Tomorrow.

CENTUM
50th
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