



Rockwell Automation Overview



expanding human possibility[®]



We are a global leader in industrial automation and digital transformation.

We connect the imaginations of people with the potential of technology to expand what is humanly possible, making the world more productive and more sustainable.

expanding **human possibility**[®]



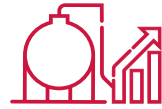
Chemical industry challenges



Market variability and pressure



Before the pandemic, Nearly **50% of the top 100 chemical companies** made changes to their product portfolio (McKinsey)



Productivity and fixed-asset utilization



From 2011 to 2020 the quantities of production-related waste managed by the chemical manufacturing sector **increased by 79%** (EPA)



Process safety and cybersecurity



A recent U.K. government study estimated that **cyberattacks cost** the chemicals industry in general **£1.3 B (US \$1.5 B) a year**



Environmental, Social, and Governance (ESG)



Including fuel and feedstock use, the chemical industries account for about **30% of the total energy consumed in the manufacturing sector** (EIA)



Workforce effectiveness



Experienced staff creates much of the industry personnel and **27% are retiring in the next 3-5 years** (McKinsey)

OUTCOMES

Accelerate growth through digital transformation

Production optimization

Safe and secure operations

Sustainable operations

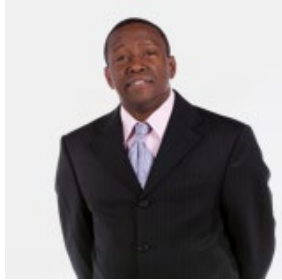
Workforce enablement



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Recognizing the challenges across the company

Executive Team



"Is the company aligned to support ESG initiatives?"
"Are measures in place to drive shareholder value?"
"Can we meet our growth strategy through organic efforts?"

Plant Management/Operations

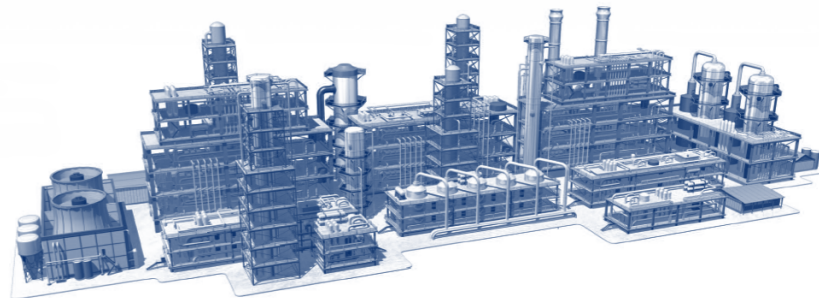


"Do I have real-time insights of production KPI's?"
"How can I increase capacity / yield in support on order demand?"
"Are we aligned with EHS in meeting safety and emissions targets?"

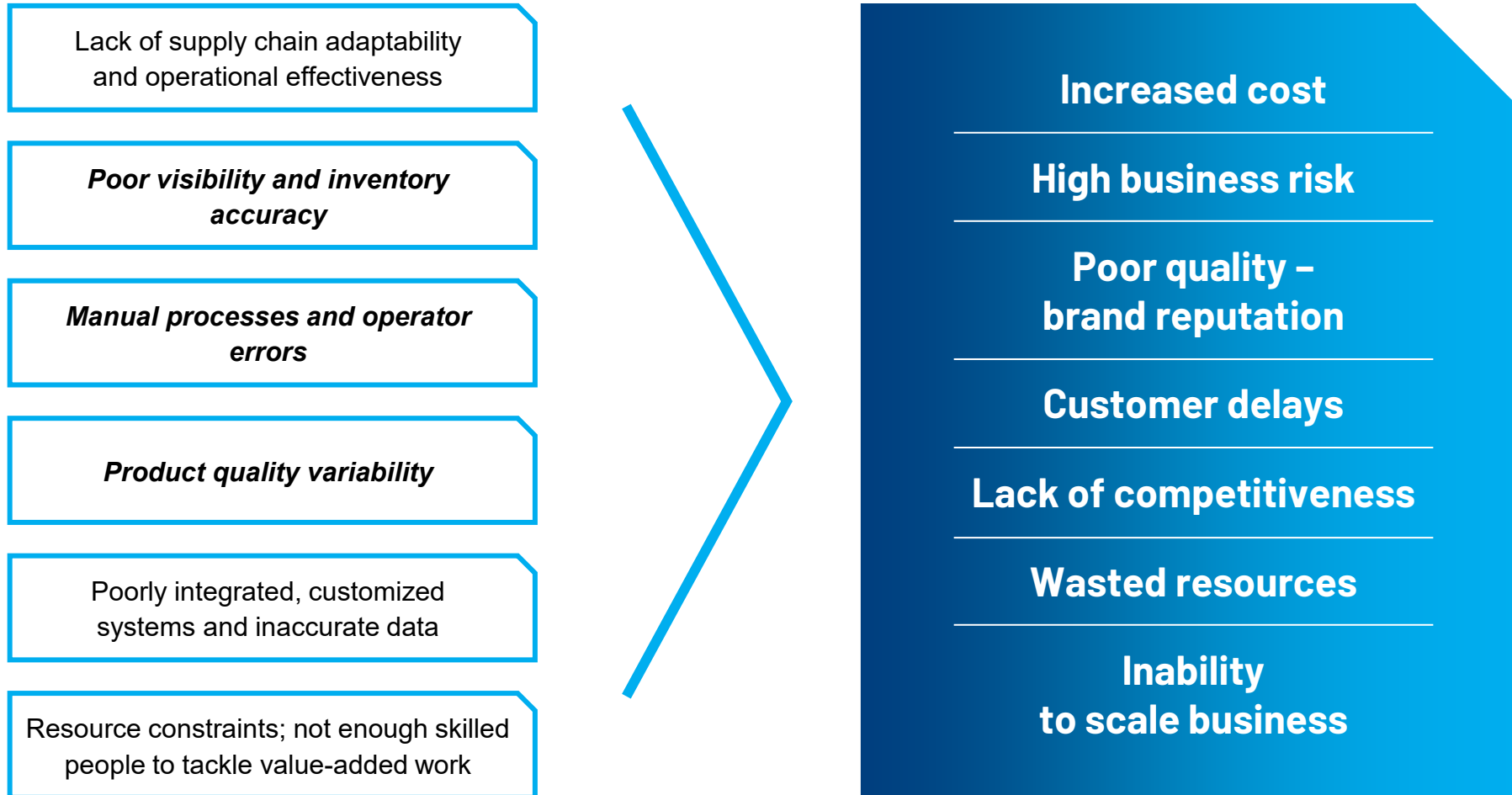
Sales



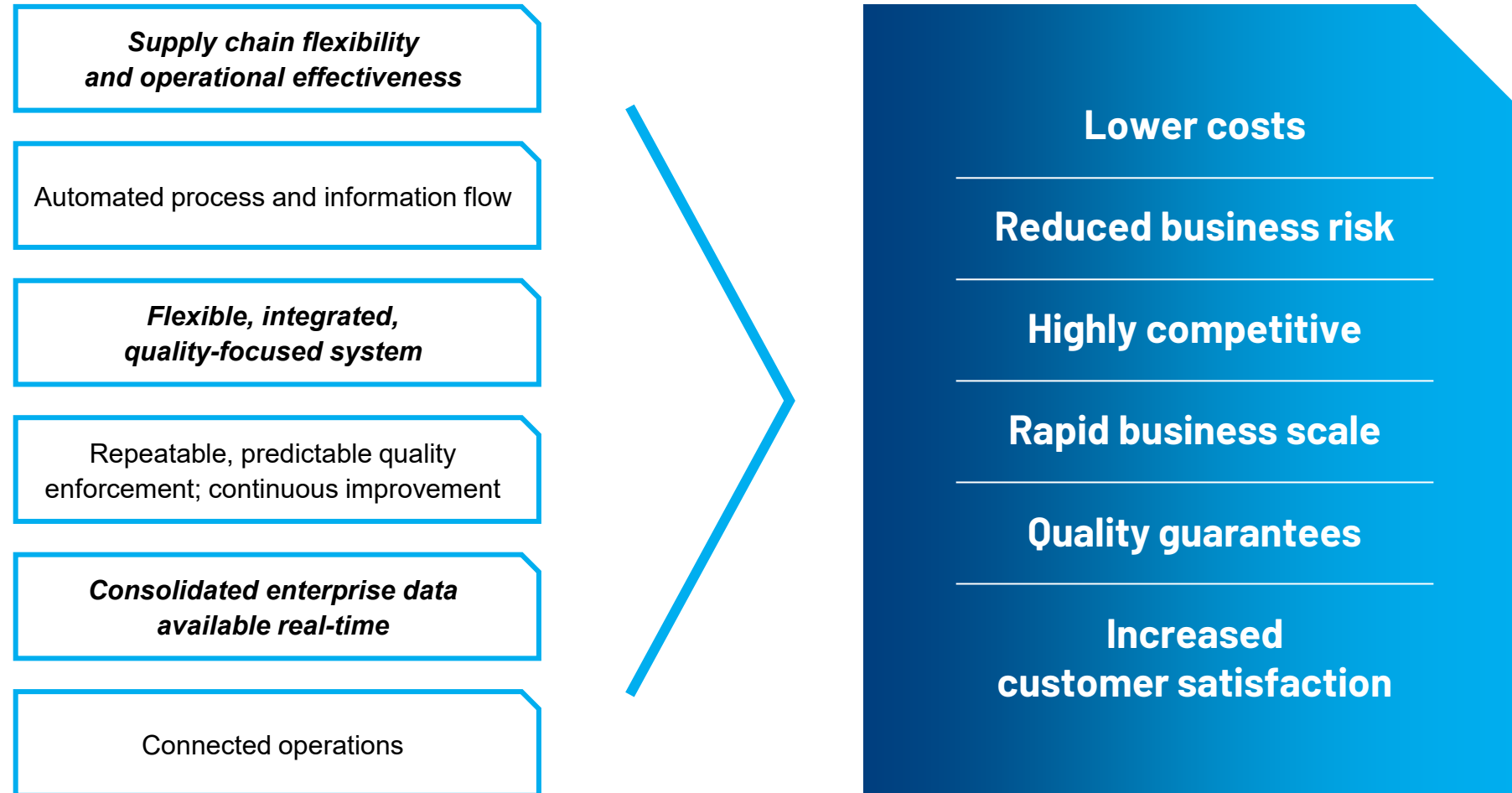
"Will the site deliver on my customers order?"
"Does our plant have enough capacity to meet demand?"
"Do we have insights to support product quality concerns from my customers?"



Present Operations can be littered with Negative Consequences



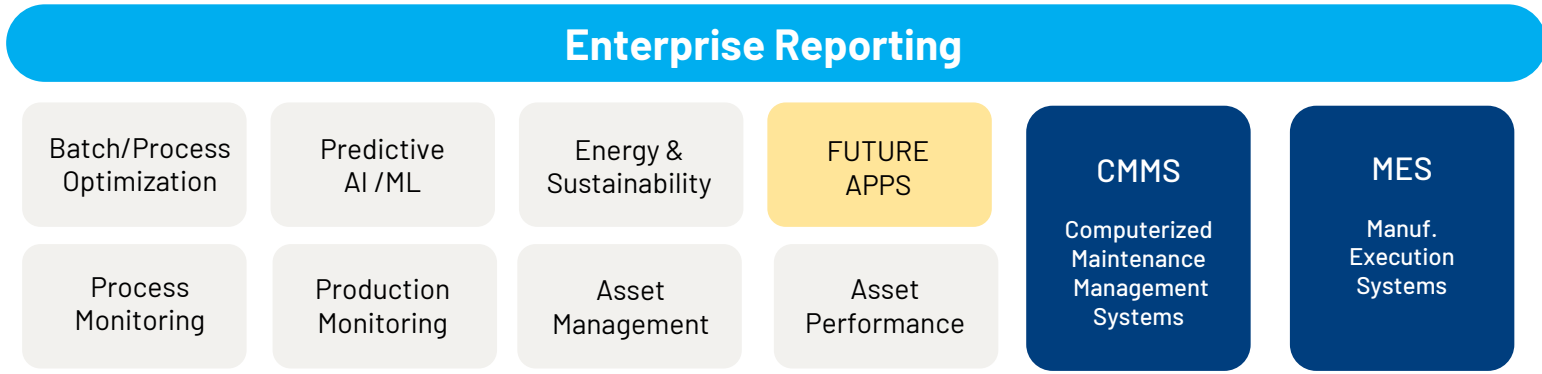
Future Operations: Positive Business Outcomes



Build a Future-Proofed Infrastructure with Rockwell Automation

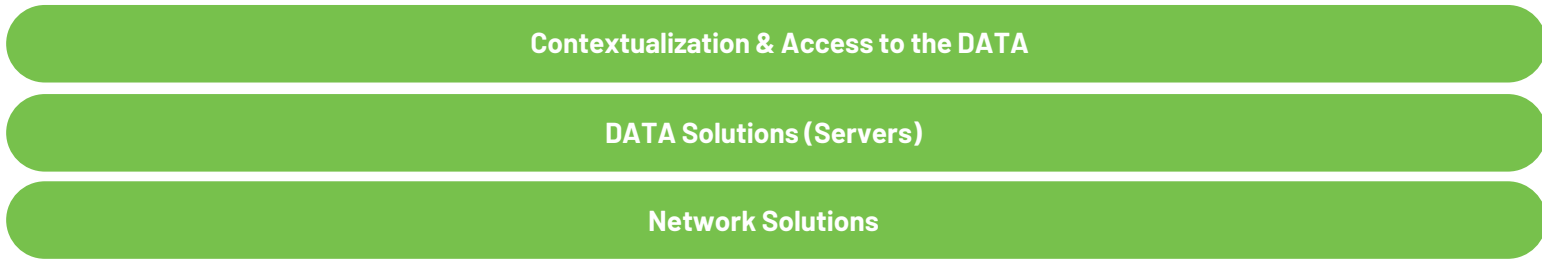
DIGITAL APPLICATIONS

Applications That Create Value



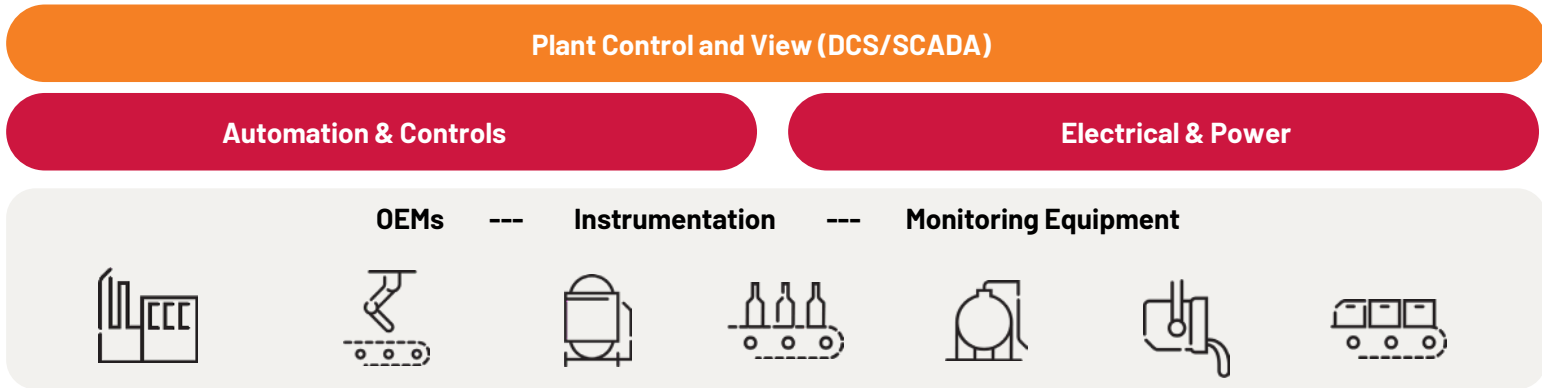
THE CORE

Digital Infrastructure



Foundational

Device + Automation

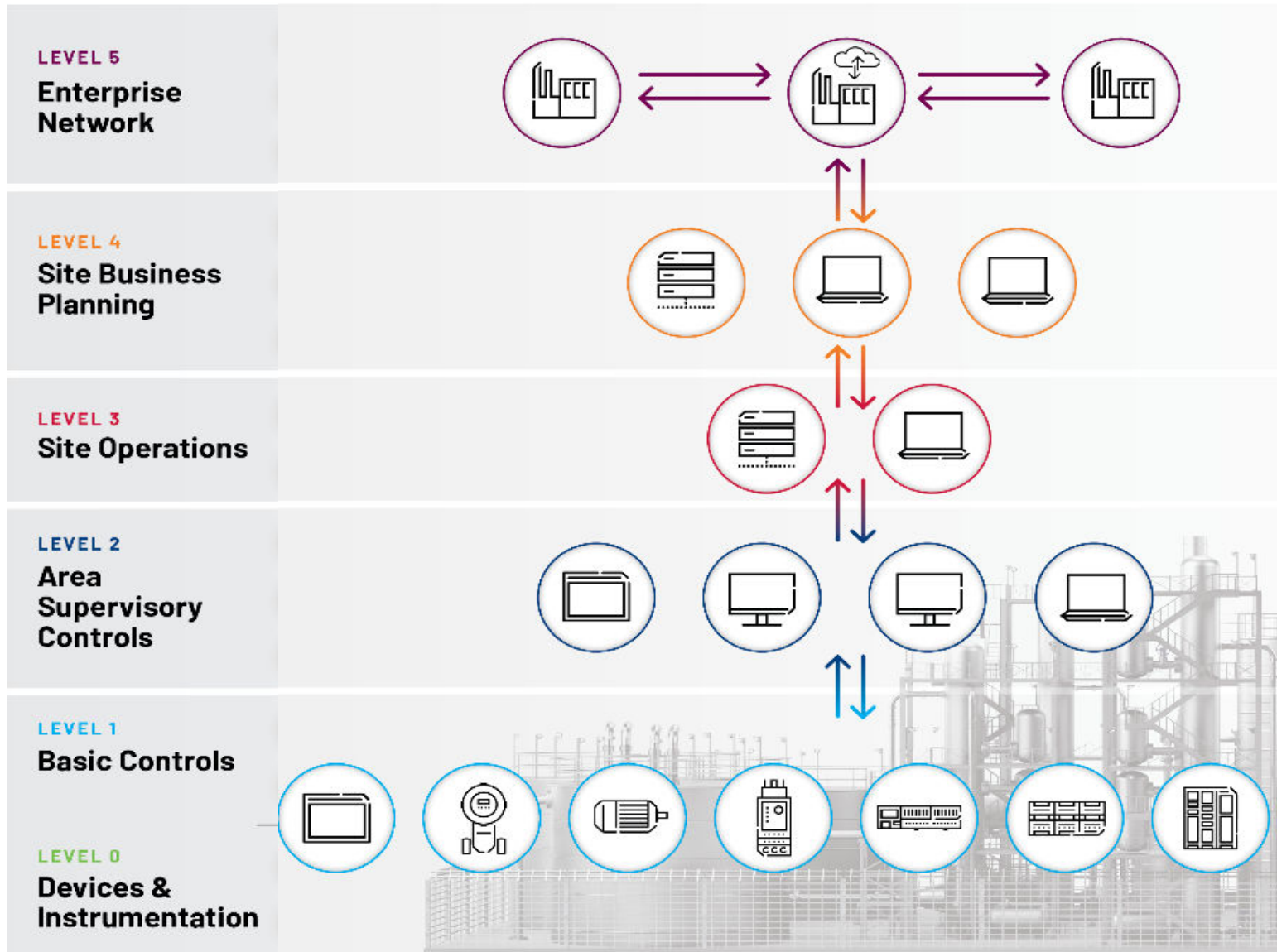


CYBER SECURITY



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The Connected Chemical Plant

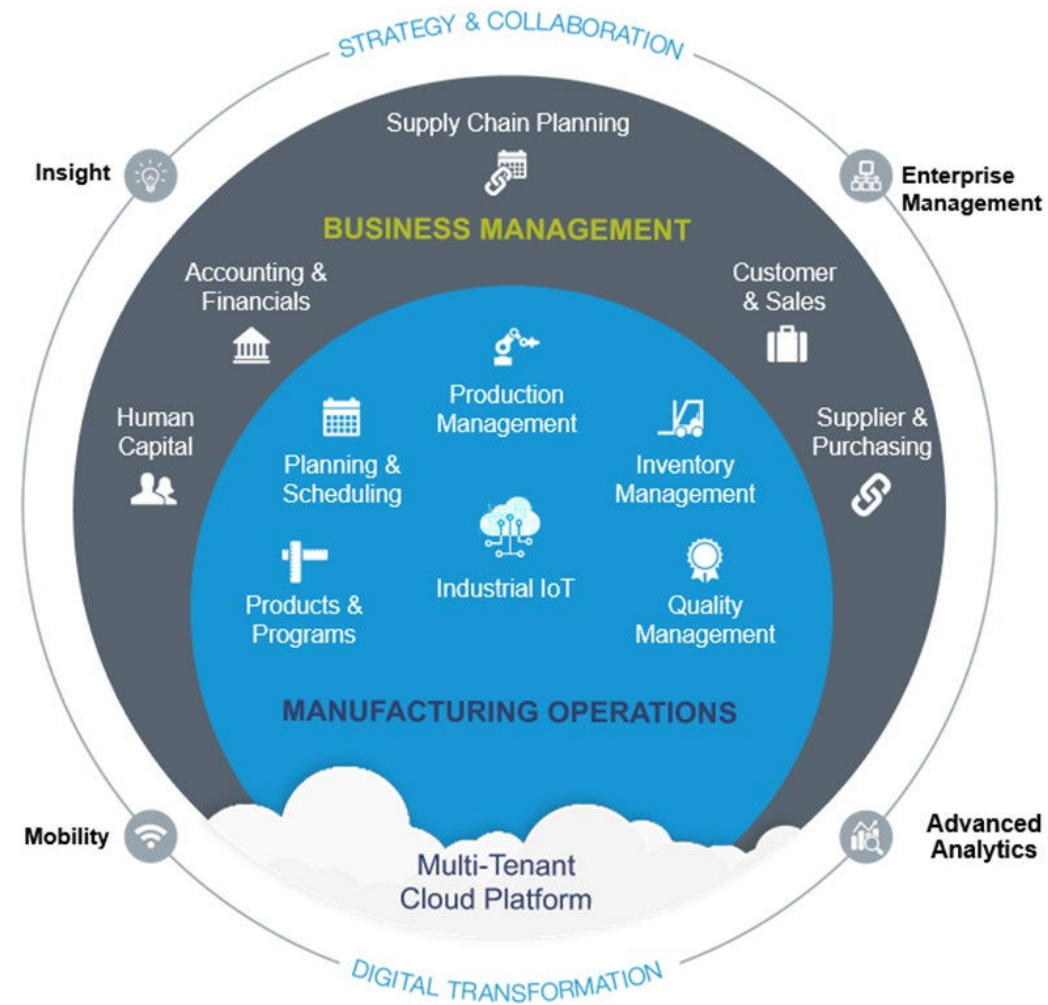


- Visualization of enterprise-wide performance
- Real-time insights into improvement opportunities
- Enhanced operation
 - Maximized fixed-asset utilization
 - Minimized unplanned downtime
 - Lower operating costs
 - Improved environmental performance
 - Protection from cyber threats



Gaining insights through MES / ERP Functional Components

Through a modular portfolio!



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Where do I start my Journey!

Schedule your **no-charge** IT / OT Plant assessment



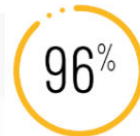
IT / OT Plant Assessment Visit

PREPARE FOR THE EVOLUTION OF THE TRADITIONAL CHEMICAL PLANT

Do you have the insights and OT infrastructure to support the evolution of your site?

ISSUE Challenges in adapting to new industry regulations

- Defining requirements to support your longterm business objectives relative to ESG
- Addressing obsolete/dated assets within your facility to support new initiatives
 - o "More than \$65 billion in legacy automation assets are reaching the end of their useful life!"
- Aging platforms/technology limit production performance



of the world's largest 250 companies report on sustainability.
Source: KPMG

ISSUE How to reduce Risk when implementing new industry initiatives

- Evaluating all areas of risks (assets / resources / environment) in driving a new strategy
- What infrastructure is required to support your customers as a toller?

A customer building one Brownfield and two Greenfield facilities engaged Rockwell Automation to **manage the automation and electrical scope**, resulting in...

- Greenfield project **accelerated by 6 weeks**
- **Improved execution efficiency**—used same model on 3 projects simultaneously

Sample Agenda

SITE ASSESSMENT	Rockwell Automation Resources		Customer / Site Resources					
	Technology Resource	Industry Resource	Site IT	Engineering	Process Engineer	Operator / Supervisor	Site Management	Other resources
Topic								
Project KickOff (Introductions, Preliminary Schedule Review, Overview of Assessment)	X	X	X	X	X	X	X	X
Process Review – (High Level from Process Flow Diagrams & review of task assignment)	X	X		X	X	X		
Plant Tour	X	X	X		X	X		
Break	X	X	X	X	X	X	X	X
Day in the Life with Operators and Process Engineers	X	X			X	X		
Plant Priorities (Relative to ESG / Cybersecurity / Safety)	X	X	X	X	X	X	X	X
Wrap-up / Lunch	X	X		X	X	X		

Objectives

- Gain additional Industry insights relative to operational efficiencies in your facilities!
- Perform a "Day in the life of an Operator" to determine potential areas of improvement.



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Rockwell delivers solutions to solve the challenges facing our industry!

- *Improve Supply Chain and Inventory visibility*
 - *Increase efficiency and throughput*
 - *Reduce quality variation and operating costs*
 - *Improve Environmental performance and safety*
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- **Come visit us in Booth 404!**

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