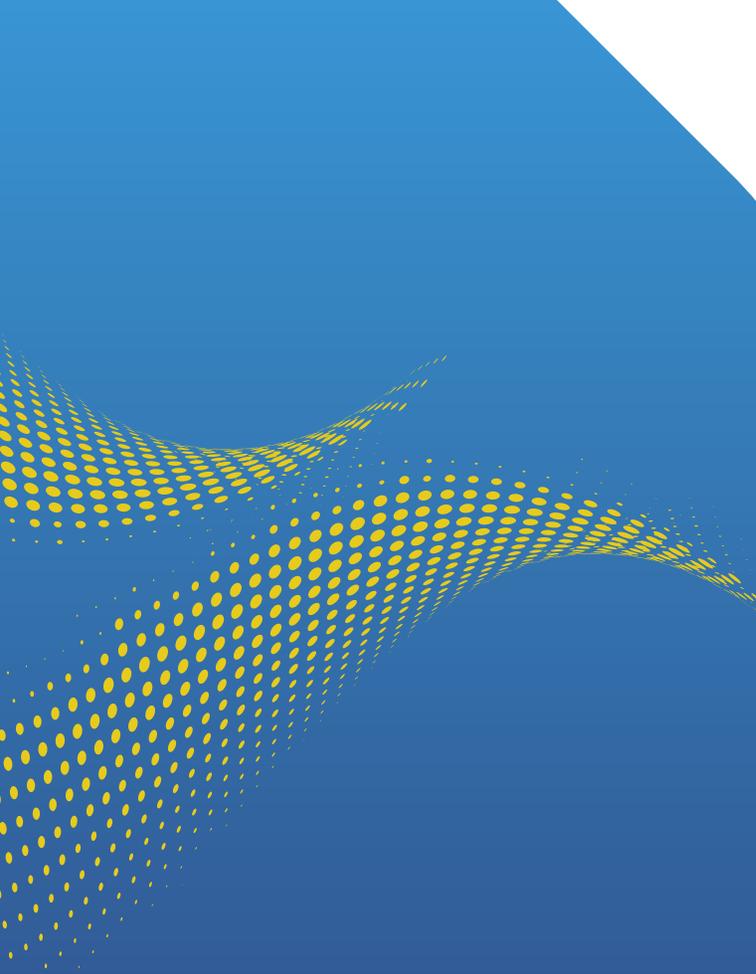
A photograph of a man in a yellow hard hat and a high-visibility safety vest, looking at a tablet device. He is in a factory or industrial setting, with blurred machinery in the background. The image is overlaid with a semi-transparent red gradient on the left side.

An OEM's guide

to maximizing the transformational impact of IIoT for end user customers

Identifying use cases and generating new revenue opportunities with the support of Rockwell Automation

Based on the Harbor Research report "90 Use Cases Leading Transformation"



Digitalization plays an important role in harnessing the potential value that OEMs can offer across the lifecycle.

Smart manufacturing

The manufacturing sector is entering a period of convergence. Several distinct technological shifts, including sensors, automation, machine learning, computing and communications, have each advanced and combined to enable a new era of digital innovation. The confluence of these dynamics will accelerate change and bring unparalleled levels of productivity.

The following guide is based on a study conducted by Harbor Research on the opportunities presented by new digital and Industrial Internet of Things (IIoT) solutions, with additional insight into how OEMs can capitalize on these transformational forces to better support their end user customers. Rockwell Automation sponsored the original report to provide a comprehensive perspective on emerging digital innovations, applications and use cases. ([Access full report here](#))

This guide offers context on what this new paradigm means for OEMs and their go-to-market approach. It then provides a framework and model that OEMs can use to think about the entire lifecycle of their machines, leveraging the right stakeholders and maximizing the value of each part of the process. Digitalization plays an important role in harnessing the potential value that OEMs can offer across the lifecycle. To achieve this goal, we outline a four-stage model of:

- **Discovering and defining**
- **Focusing and framing**
- **Examining and learning**
- **Organizing and acting**

Rockwell Automation can provide assistance in implementing this framework and using it as a source of revenue generation, both for delivering the right business solutions to meet immediate end customer needs and for longer-term business development, support and consultation services.

While the manufacturers face challenges, OEMs themselves have new pressures to address.

- Machine prices are slipping
- Cost has gone up due to the necessity of adding advanced functionality to machines
- Greater complexity
- Squeezing margins and mandating more value-add service offerings to justify higher prices

OEM TRANSITION GOAL

A **sales-service split** from

80:20

toward a **target** of

50:50

Adapting to deep sectoral change

Today's manufacturing businesses share a common aspiration to add greater flexibility and resilience to their production operations to deal with pressures of supply and demand fluctuations and workforce.

This macro uncertainty has also come against a backdrop of fundamental changes across sectors relating to the use of data for more accurate product forecasting, process efficiency and performance analysis. **Digital and IIoT innovation's most profound potential** lies in its ability to connect millions of smart sensors, machines, and ordinary equipment into more autonomous and aware systems that will enable a whole new generation of intelligence. End users are looking for service providers that can help lead the correct path towards digitalization and maximize the effectiveness of their investments.

A new sales approach

This change in paradigm is bringing changes to how OEMs think of the sales process, shifting from a model weighted towards selling machines and parts, to one that places greater value on the service component.

The goal that many OEMs are seeking to achieve is a transition from a conventional 80:20 sales-service split towards a target of 50:50, whereby service becomes a key differentiator for their business and helps to generate ongoing revenues.

To achieve this goal, OEMs should endeavor to have different conversations and with different stakeholders inside their customer's organization. This means a shift away from technical conversations with machine operators, towards more business solutions-oriented discussions with leadership in operations and IT.

OEMs are well positioned
to provide the level
of consultancy and
services required.

Expanding the scope of OEM services

While these new relationships and conversations may seem unfamiliar, OEMs are well positioned to provide the level of consultancy and services required. OEMs are by nature machine experts and, as such, they possess a deep understanding of:

- the value their equipment can bring to customers.
- how to apply features and functionalities to specific use cases.
- how users can maximize the performance and minimize downtime of their equipment.

And end user customers are changing the way they look at their equipment within the context of their operating model. The machines are no longer a commodity item, but now a key part of delivering differentiated UI/UX for operators, and a connected, collaborative experience for customers.

Longer-term equipment aspirations that end users might have include:

Adoption of new capabilities – like 3D process emulation, intelligent conveyance, integrated robotics, real time diagnostics and analytics – that improve the efficiency, reliability and robustness of production.

Integration of IIoT technologies with immersive capabilities in AR and VR, to offer customers connected services such as predictive maintenance.

Leverage contract manufacturing to de-risk the earlier stages of new product development.

Transition towards as-a-service agreements to alleviate CapEx requirements and fundamentally alter the relationship with machine builders.

To deliver on these aspirations, OEMs need to transform the way their business operates.

Breaking conventional barriers

To deliver on these aspirations, OEMs need to transform the way their business operates. There are **several current roadblocks** OEMs typically experience when transitioning to a more service-oriented approach:

Shifting to a lifecycle management-based approach. OEMs are often not used to delivering service-based sales. The conventional episodic sales mindset is firmly embedded and needs to be altered if they are to become a transformation partner.

Putting forward strong IT value propositions. As machinery and operations experts, OEMs often struggle to overcome pushback when facing customer IT teams. Concerns often range from IT security, data protection and IT/OT convergence around connectivity and infrastructure.

Lacking visibility to customer's equipment. The lack of interactivity in conventional equipment means OEMs are unable to see customer's specific issues first-hand, or be there to help resolve day-to-day challenges such as onboarding or minor maintenance.





DISCOVERING
and **DEFINING**



FOCUSING
and **FRAMING**



EXAMINING
and **LEARNING**



ORGANIZING
and **ACTING**

A framework for success

There are four phases to the digital innovation process that Harbor Research outlines in its report. And Rockwell Automation can help OEMs develop a more holistic, end-to-end service offering that generates revenue and meets many end user's digital transformation goals at each stage.

1 DISCOVERING AND DEFINING

Network, software and digital technologies continue to pervade the physical world of sensors, machines and manufacturing. Leadership in many industrial organizations is rapidly recognizing the significant value created from extracting and leveraging the machine data and usage information from their equipment, systems and organizations.

It's important that customers know the value of sensors and the data they provide. More importantly, OEMs can help demonstrate how that data improves decision making, enables remote support and supports the pursuit of the most impactful use cases.

We help make machinery, with digital capabilities at their foundation, possible. Helping OEMs go beyond siloed equipment to create integrated, end-to-end solutions that enable the capture, accessibility and contextualization of data at every step of the production process. Capabilities built at the machine design level, like advanced HMI design, integrated control and digital twin software, give the end user the ability to make smarter, more informed choices.

2 FRAMING AND FOCUSING

As networks continue to integrate the physical and virtual worlds, the strategies that manufacturing executives employed in the past to drive growth are less likely to work now, or in the future. New digital and IIoT technologies are driving a multi-year wave of innovations based on the convergence of embedded software, machine intelligence and networked data collection and analytics.

OEMs should focus on the value they can provide to customers to drive growth. And we can support them by helping resolve potential issues or concerns at the installation stage, such as data security and interoperability and make the UI intuitive and instructive to accelerate employee education and onboarding processes.



**We help OEMs
capitalize on connected
machinery** to create a
two-way interaction
between machine builder
and end user.

3 EXAMINING AND LEARNING

Embracing radically new approaches to integrating smart things, people and physical systems will drive unimagined new values and provide manufacturers with opportunities to leapfrog competitors.

We help OEMs play a more active role in operations, supporting their end users to set up KPIs/metrics and monitor the performance of equipment and individual workers, with the goal of maximizing efficiency.

Rockwell Automation's integrated control technology includes standard, open ethernet foundation, allowing the user to connect machines and controls from multiple OEMs, and is reinforced by secure, remote access and trusted IT security partners. The integrated design helps to ensure machines operate most efficiently with the help of OEM remote monitoring and optimization.

4 ORGANIZING AND ACTING

Problem solving for new digital innovation and solution opportunities must address tough questions: How to turn workers, partners and customers into believers and contributors? How to make impactful changes that ultimately solve challenges and create unique new solutions?

We help OEMs capitalize on connected machinery to create a two-way interaction between machine builder and end user. With this approach, OEMs can:

- Monitor performance of individual machine parts and equipment using secure remote access
- Use AR/VR capabilities to provide digital work instructions and avoid the need to be onsite
- Embed recurring revenue opportunities that encourage customers to come back for upgrades, new use cases and product ideas
- Tap into Rockwell Automation's strong end user relationships and benefit from the "3-legged stool" of OEM - End User - Supplier
- Develop an ongoing support model to embed their expertise into their machinery, such as 24/7 remote assistance or a digital library of support modules

OEM success stories

Rockwell Automation works with OEM partners across all sectors and segments.

Here are a few of those stories:



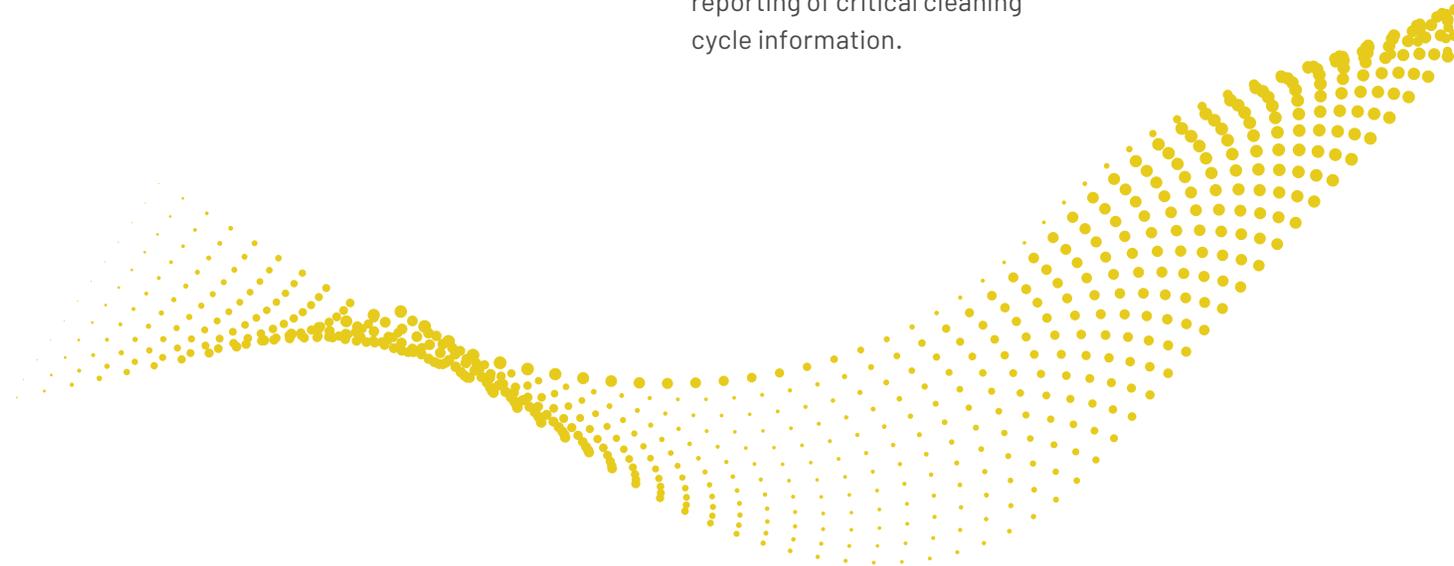
We worked with this global biopharmaceutical machine builder to **digitalize and bring process control** to The Testa Center – an innovation lab that enables researchers and entrepreneurs to pursue life-changing medicines.



Rockwell Automation supported the use of IIoT and AR to strengthen this packaging machine maker's digital transformation strategy, with a focus on **improving agility and driving productivity**.



Process cleaning equipment builder was transforming towards a digital business model to **improve product quality and enhance compliance processes**. They leveraged IIoT technology in creation of SaniTrend Cloud, a new online cleaning cycle reporting software for automated, secure data acquisition and reporting of critical cleaning cycle information.



**Rockwell Automation has
extensive experience**
and reputation as an
industry leader.

Maximizing customer impact

OEMs can partner with Rockwell Automation to design and build a connected ecosystem. Rockwell Automation has extensive experience and reputation as an industry leader and end-to-end digital transformation partner. We have deep expertise in helping OEMs offer an open digital solution that can help them generate and collect data to sell better business solutions to end users.

We also bring the benefits of our ecosystem-led approach, including our partnerships with CISCO, Microsoft and PTC. From our connected ecosystem we facilitate end-user and OEM synergies and offer the value of our human capital at Rockwell Automation in helping fill in any gaps that the OEM may encounter alone. We offer a digital platform that's **flexible, intuitive and meets industry standards**, which OEMs can leverage to enhance the service they offer to end users.

Amid the changes that come from uncertainty and technological convergence, the capabilities available to manufacturers will continue to mature. Rockwell Automation can help OEMs harness this evolution by staying on top of the latest capabilities in the market and making them available to manufacturing businesses.

Our solutions can help you enhance your offer to customers today, while evolving your services in line with changes in the market.

Access the full Harbor Research report,
"90 Use Cases Leading Transformation" here

Learn more about Rockwell Automation's solutions for machine
and equipment builders at rok.auto/machinebuilder



Connect with us.    

rockwellautomation.com — expanding **human possibility**[®]

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