

Smart Operations Through Digital Transformation— a Step-by-Step Guide

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Executive summary

The landscape of American manufacturing is undergoing a seismic shift, marked by a need for increased productivity and competitiveness. In the wake of global supply chain disruptions, rising labor costs, and the growing digital demand, manufacturers across the United States are integrating automation, advanced software, and smart equipment into their operational strategy. This wave of innovation is not about replacing human labor; it's about redefining how businesses operate through smart operations that leverage technology for efficiency and sustainability improvements and increased profits. Embracing automation and digital transformation makes processes more agile while empowering workers, enhancing safety, and keeping companies competitive.

Introduction

Embracing this change is just the beginning. Digital transformation is intricate and demands organizational focus, investment, and cultural commitment, from top executives to frontline workers. It's not something that can happen overnight it's a marathon, but the key is breaking it up into achievable sprints. Any successful digital transformation must focus on people, process, and technology, prioritizing people and processes. A scalable digital foundation is also essential. Before your facility can deploy next-generation automation technologies like artificial intelligence (AI), digital twins, and advanced automation, you need a vision and a commitment to continuously improve and drive innovation.

Most U.S. facilities have explored some degree of digital transformation, but there is still significant room for growth. According to the [World Economic Forum](#) (WEF), 70% of manufacturers are still stuck in "pilot purgatory." Warehouses are in a similar boat. A survey revealed that only [5% were using advanced automation systems that allowed them to take advantage of the data locked in their processes](#).

So, why is there so much untapped potential for digital transformation?

This white paper provides a conceptual overview of industrial digital transformation and offers a proven method for transforming basic operations into smart operations. Our process emphasizes best practices for people, processes, and technology. We explain how to assess your current state and develop a roadmap to navigate the three stages required to deliver and sustain your transformation journey.

Why transformations succeed or fail

The urgency of digital transformation

Most companies know they need to transform but don't know where to begin, how to bring their people along for the journey, and how to sustain the transformation activity they may have started. There is a recognized urgency in all industries to transform how they operate and a need to electrify, digitize, and automate to meet future challenges.

Driving smart operations requires operational and digital transformations across the site and throughout the value chain.

No two industrial digital transformation journeys are identical, but the manufacturing transformation blueprint is replicable. Any brownfield manufacturing site regardless of age can become a world-class facility. You can teach an old site new tricks!

Navigating your transformation journey

Over the years, Schneider Electric™ has seen transformations succeed and fail. Identifying the reasons why transformation efforts succeed or fail helps you follow a transformation journey, learning from the experience of others and avoiding predictable pitfalls.

Everyone wants innovation, but it is disruptive and potentially runs counter to what a company does well, the culture it has created, and what it rewards and trains its people to do.

So, what is the way forward?

Five reasons why transformations fail

1. The organization isn't ready. Transformation fails when companies expect innovation to follow previous constructs and models. Your company's core is structured for stability and conformance; transformation is meant to disrupt that. Transformation happens when you work outside the constraints of your company with strings connected to the core. Innovation thrives when a company creates a relatively independent operating group with different rules of engagement, allowing it to run experiments. Innovation must be able to fail, and it must have room to breathe.
2. People aren't equipped. Most companies prioritize stability, and encouraging disruption is a departure from that mindset. If workers are asked to contribute ideas for improving operations, many offer suggestions framed by what they know rather than what could be. Identify people who can think outside the box and empower them.
3. Expectations aren't right. Companies often make the mistake of not expecting failure, but failure is where learning happens. Embracing failure when experimenting helps keep innovators motivated with lowered pressure. If you expect immediate ROI with each experiment, innovation will be limited to what can be done this quarter and what guarantees immediate returns, which can stifle innovators.
4. Organizations focus on technology, not the operational vision. Prioritizing technology before understanding how it fits into your transformation often leads to an endless loop of "proof of concept" technology evaluations, slowing forward movement with the right tools and data to enable progress. Digital tools open a lot of doors for businesses, but it's easy to get caught up in their potential. Avoid this by defining the future operating model first to help determine what technologies you actually need and how to change your culture to incorporate them.
5. The destination remains vague. Transformations never end, but they do need a reasonable initial destination. Defining this milestone helps you understand what you need to do. For example, voltage change from 480V to 208V.

Five reasons why transformations succeed

1. Prioritize transformation. Changing the way your company works is an enormous undertaking. You won't achieve transformation if you expect everyone to pitch in while working fulltime. Allocate time to develop a solid roadmap, integrate new equipment, and retrain your workforce.
2. Clarify your goal. As you assess your facility's needs, you may hear many great ideas that, however thoughtful, aren't worth the investment. That doesn't mean they were all bad ideas; it means they were focused on the wrong things. Paving a parking lot to keep dust down is not bad, but it isn't innovation; it's maintenance. Conversely, many successful transformations are framed as continuous improvement and optimization. For some organizations, it's easier to frame and sustain the journey as "continuous improvement" rather than a less-well-understood term such as "transformation."
3. Communicate effectively. Successful transformation relies on a top-down approach. It's crucial for business leaders to communicate how integrating smart operations will add value to employees, both in their daily work and in their career advancement.

The path to smart operations

51% of companies are in Stage 2 or above,

49% of surveyed companies are still in Stage 1, with 21% in the early stages developing and testing pilots.

-Source Schneider Electric survey

Stage 1: Evaluate your site

4. Prioritize resilience and adaptability. The world is dynamic and increasingly volatile. Companies must establish resilient, adaptable work processes to be competitive in a changing environment while continuously improving efficiency and standards.
5. Rely on expert partners. Choosing the right partners to help with your transformation journey is critical. The best choice is an organization with the tools and experience to help you implement the necessary culture, process, and technical changes across the entire value chain, from sensor to cloud and throughout the asset lifecycle.

What differentiates smart operations from “old school” manufacturing? It's not about new equipment on the shop floor or how many fancy gadgets there are. It's about creating value by extracting and putting data to use, getting it to the right people at the right time.

The value of data in improving your facility's digital capabilities to achieve business outcomes has never been more important. Digitalization extracts data from your machines, power systems, HVAC, and inventory, and aims to make contextualized data accessible for decision-making. But data is only as good as the people and processes putting it to use. Technology advancements must be focused on impactful business outcomes, otherwise you are creating activity with no purpose, meaning you may be busier without being better.

Having helped many our customers electrify, digitize, and automate their operations, we identified three core stages to follow to achieve a digital transformation:

1. Evaluate your site
2. Digitize the core
3. Digitize at scale

While every facility's path is unique, each will pass through these stages. Each will implement and build upon a performance system, a robust and modern architecture, and a cybersecurity program seamlessly integrated into daily operations.

A turning point for industrial digital transformation

94% of the [recently surveyed](#) organizations expect digital transformation to impact their operations in the next 2–3 years. 60% expect this impact to be major.

Understand your facility's current state to develop a digital strategy

The initial phase of an industrial digital transformation involves the assessment and road-mapping stage, where you uncover your "why" and plan the "how." This stage is pivotal as it lays the foundation for the entire transformation journey.

No two industrial digital transformations share the same why, how, and starting point. Every successful transformation does, however, start with the same approach: assess where you are and build a roadmap of where you want to go.

Consider the six pillars of excellence for manufacturing facilities:

1. Operational efficiency and productivity
2. Infrastructure and cybersecurity
3. Governance and change management
4. Asset performance and management
5. Energy management and sustainability
6. Data management

Having a roadmap based on proven approaches coupled with a custom-built plan lets you map business objectives to your operational strategy. Consider what is pushing you and your team to contemplate transformation, such as:

- Reducing unplanned downtime and enhancing operational efficiency and asset performance
- Implementing energy management strategies to cut costs and carbon emissions
- Addressing labor constraints by focusing on workforce upskilling and refining governance and change management practices
- Making the supply chain more resilient by prioritizing inventory management

How to build a roadmap around people, processes, and technology

Operations, people, processes, and technology are the core enablers for affecting successful digital transformation.

People

People, not technology, are often the determining factor for success. It requires integrating feedback from the top down and bottom up. **There's no strategic substitute for talking to your teams.**

As you plan your journey, bring your team together to identify what must be done to improve competitiveness and drive progress. One critical challenge is creating a joint mandate for the information technology (IT) and operational technology (OT) teams.

The IT and OT worlds are often two cultures and teams that have historically not functioned well together. OT teams might worry IT teams will “break” their systems, while both teams might struggle with budget control, cyber risk, and other implementation roadblocks. **The path to advanced operations requires breaking down siloes and building trust.**

Innovation must be directed by leadership

Leadership must create a common purpose or vision and clarify what it wants to achieve. Some may focus on technological enablers such as AI, predictive analytics, and 5G, while others target ambitious outcomes such as near 100% uptime, supply chain resilience, and decarbonization. All of it is achievable but not likely all at once. **Your people will have the best insights into what's not working well and what stands in the way of change.**

Processes

Processes bridge people and technology, making change management a crucial undertaking. Digital transformation may disrupt long-standing processes, and the transition is often not seamless or frictionless. If your team has been manually logging machine data via whiteboards and pen and paper, transitioning to tablets will take time. Some digitally reluctant employees may feel uncomfortable with the switch and resist the change.

Engage workers by seeking their input and aligning incentives. Transforming to a data-driven workflow may require re-skilling, upskilling, or hiring new talent capable of managing the new data and network challenges. You may also need to apply Lean and Kanban methods, existing frameworks for efficiency that can integrate well into a new digital environment.

Technology

Over the decades, there have been massive changes in how technology is used to pursue operational efficiency. The industrial internet of things (IIoT), AI, and private 5G (P5G) connectivity are poised to offer similar breakthroughs.

With the arrival of the Fourth Industrial Revolution, many discrete and process manufacturing building blocks have built-in connectivity, including connected motors, drives, PLCs, and other controls, and pushbutton sensors to monitor performance and anomalies. Other facility systems may have the same depth of IoT connectivity built-in, including your power distribution system, network and IT infrastructure, and building management system (BMS). However, each of these devices and systems needs to communicate with computers on the IT side via Ethernet cables or wireless technologies.

Digital transformation is about connecting nearly everything in your facility, so you must consider universally open and interoperable technologies and architectures.

Ready to get started?

Connect with us to conduct a digital readiness assessment of your facility. Our consultants offer these assessments to help you identify what's in place across your people, processes, and technologies.

To get ready for your assessment, consider the following:

- Are your people already familiar with Lean management?
- Do you have a robust IT network in place?
- What are the business objectives you want to target?
- Where are the barriers that impede plant productivity?
- What efficiency improvements do you want and what will hinder the the process?
- Are your people ready? Does everyone understand their role?
- Do you have the right systems to help you measure performance and achieve your vision?

Connect with us for a consultation on how to convert your operations into smart operations.

[Get in touch](#)

After the digital readiness assessment, you will define your targets, plot them on a roadmap, build a plan to achieve them, and identify ways to measure them.

The roadmap outlines the digital transformation structure, but it won't solve all issues immediately. Challenges and detours may arise but remember we're here to support you. Setbacks are a normal part of continuous improvement, so it's crucial to learn, adapt, and progress.

Stage 2: Digitize the core

Build a digital foundation to deliver and sustain results

Maintaining operational excellence during your smart operations journey requires a performance system as part of your foundation supported by digital and scalable technology. Using a Lean foundation that includes strategies for people, process, and technology allows you to monitor your progress and scale the site's transformation. This includes methodology to drive the right improvements on an annual basis to benefit your operations the most.

A Schneider Electric survey shows that roughly 1 in 2 facilities are in the first stage of digital transformation. The first stage can span anywhere from "pre-connectivity," when operations still rely on analog and pens and paper, to a post-connected phase.

Many organizations face internal or external pressures to leapfrog from pre-connected shop floors to advanced tools, jumping from Stage 1 to 3. We recommend ensuring you apply changes based on priority for the business and at a pace that the organization can manage, with plenty of flexibility for experimentation and fast failure. And that begins with digitizing the core.

What does "digitize the core" mean?

Digitizing the core is not just about infrastructure and IT; it includes:

- Establishing a performance system
- Creating a digital framework for Lean management and processes
- Implementing short-interval-management for manufacturing processes
- Empowering a digital workforce

A Lean framework is a primary building block for a successful transformation. Executive leadership should prioritize Lean principles and invest in building the right infrastructure for success. That requires modernization, networks, cybersecurity, and communicating a common purpose for transformation that people can relate to and support. This is also key to ensuring the "core" is ready to scale within the site and throughout the organization.

Every facility is full of operational information: a motor is about to fail, inventory is running low, or an abnormal operational situation is causing equipment to slow or malfunction. These are common events, and in pre-connected facilities, each occurrence potentially provides important data after the fact to help avoid a future crisis.

Advanced manufacturing requires a solid connectivity infrastructure. The connectivity infrastructure acts as the concrete groundwork for your digital foundation, and you can't build anything without it. This infrastructure connects OT (conveyors and machines) to

your IT system (servers and computers). It also includes the infrastructure that powers and protects your IT system. With basic connectivity, this intel from onsite events becomes actionable data. In the later stages of your journey, descriptive data is refined into prescriptive and predictive data. This means they can respond before an incident occurs.

Connecting your machines to computers can take months, or even years, as you experiment and pilot some projects. Creating a solid foundation is essential for your people, processes, and technology; no shortcuts exist.

It may seem obvious, but one thing organizations overlook is the need to introduce and protect basic network connectivity on the shop floor.

With great connectivity comes great responsibility

When introducing connectivity into your shop floor, a few things should happen immediately on the IT side.

- IT deployments (computers and servers) are as critical as your machines and conveyors and must be protected with reliable IT infrastructure. Each computer needs backup power to prevent unexpected downtime. Small servers might need air-conditioned mini enclosures that prevent overheating or intruders.
- Cybersecurity becomes essential. OT attacks are regular occurrences, even to small-scale producers. The moment your machines connect to the internet, they're at risk.
- With abundant new OT data available, it's important to structure how it is stored and accessed. Introducing a standardized network architecture allows for coherent data management and helps make future scaling smoother.

Designing and implementing a robust system that forms the basis of your digital transformation demands rigorous attention to reliability and cybersecurity.

Discover three top lessons learned from successful IT/OT convergence case studies.

[Read the article](#)

Converging IT and OT for a stronger core

On the IT side, digitizing the core often refers to enterprise resource planning (ERP) platforms that digitize and stitch together important business functions (HR, finance, procurement, and more). Many larger organizations have experience digitizing the IT core but have much less experience digitizing the OT core to bring machines, building automation, process automation, and other systems under a data management framework similar to ERP.

Data as a main driver of smart operations

Data is the lifeblood of your facility, with asset health data being vital for training AI models and enabling predictive analytics. For instance, an AI vision tool can monitor the real-time condition of conveyor chains on two kilometers of the overhead conveyor system, detecting anomalies and notifying the team before the chain breaks. This tool monitors a core process and keeps the plant working. Using the data, we manage the risk of outages and downtime.

It's not just about better data, there's also more data. Private 5G (P5G) networks, an emerging trend in manufacturing, deliver ultra-low latency data transmission to provide insight into data-intensive processes. Consider how many images you must capture and process to monitor two kilometers of conveyor chains. Ultra-fast connectivity is the only way to manage the hundreds of images per minute required to enable workers to respond to insights in near-real time.

Operational digital twin

A digital twin is a cyber representation that can model physical equipment, an entire value chain, or an asset lifecycle. It adds value along the transformation journey by using data to optimize processes on micro and macro levels. This includes modeling different line layouts and digitally configuring equipment for new products or lines.

The key is defining the digital twin's objective and starting with the data:

- Is the data complete?
- Is it contextualized?
- Do you have the skills to understand the purpose of the virtually replicated physical element?

Knowing your process inside and out is critical before you create a digital twin and attempt to learn from it, or you risk introducing distracting complexities that can hinder, rather than expedite, progress.

Stage 3: Digitize at scale

Implement digital transformation across multiple sites

Chances are, you haven't introduced connectivity everywhere, all at once. Perhaps you've scoped out and evaluated pilot projects for specific production lines or machines. Dipping your toe in a couple of times to test the waters of digital transformation can help your team begin thinking and operating in a transformative manner. Now, it's time to dive into the deep end of digital transformation. Scaling digital within the plant allows you to scale the success across the enterprise.

What is most often missing is standardization and the ability to scale to enable digital transformation across your full operational scope, from planning, people, and processes to technology. This requires ensuring support for the journey across the enterprise, from the top floor to the plant floor, because while standards are applied at the sites, the corporation must govern them.

What it means to “digitize at scale”

Digitizing at scale centers around two processes:

1. Spreading the same level of people, processes, and technology improvements across your plant
2. Centralizing the resulting data in a single system

At Schneider Electric, this means ensuring asset management programs are in place, implementing augmented and worker empowerment technology, advancing edge controls, and gathering data from "processes," energy systems, and Building BMSs.

It's about building upon the digitized core and applying digital Lean systems across your plant. This is when the plant gets smart, and other sites can see the gains from the transformation journey.

Many paths exist to move toward advanced manufacturing, but every roadmap runs through connectivity.

Establishing basic connectivity (Stage 2) means connecting your machines to computers without requiring an advanced IIoT platform. As you scale, the initial software must be able to centralize data from various systems, including machinery, building systems, power distribution, and IT infrastructure. Basic connectivity lets you implement best practices such as short-interval management, asset health monitoring, and digital workforce management.

Are you prepared to digitize at scale?

Successful transformation is a gradual process; take things slowly and set yourself up for attainable and sustainable success. Standardizing a management system for your people and processes is essential to transitioning from fragmented efforts to piloting a fully digitized program.

Remember, digital transformation is a full-time job, but it's not a job for everyone. Since raising the bar for performance means more demands on workers, rewarding their greater effort is essential, as is ensuring access to resources and support for their new responsibilities. Establish an incentive structure and identify which process changes to implement. Productivity and uptime incentives for production lines can effectively drive behavior change.

While rewarding success is important, acknowledging the right kind of failure is equally important. Experiments and pilots that don't yield the desired results still have value, as analyzing their failure can provide valuable insights to adjust efforts to meet performance goals. Encouraging workers to test new technologies and procedures can help you to make more rapid progress.

You also need to consider the connectivity in place, which is likely a patchwork of systems with limited data sharing. The goal is system standardization and integration to gather and share more robust data on productivity, asset health, power quality, and performance. Tools like AVEVA Operations Control can help you bring IT and OT data together under a unified platform.

Creating a data strategy begins with thinking through how the data will create value. Failure to identify what you hope to achieve from the outset can cause an erratic transformation characterized by false starts because the right data is not in place to reach the next milestone in the roadmap. Repeated delays and cost overruns are the symptoms of the need for better data management.

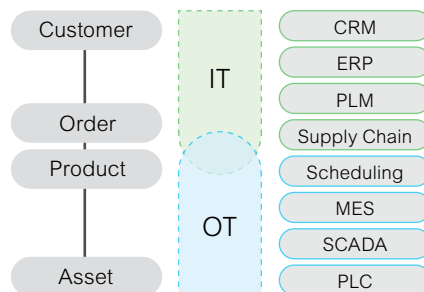
Using the company's KPIs as a framework, ask yourself: **What will the data be used for?**

Use cases help to determine how much data is required to manage a particular KPI, such as:

- **Monitor:** Measure and report on work completion.
- **Diagnose:** Understand why problems happen and take corrective action.
- **Predict:** Model conditions to enable early indications of a potential problem.
- **Optimize:** Deploy a closed-loop workflow to sense and respond in real-time.

For example, when aiming to create a process digital twin and oversee its KPIs, the level of detail needed for the twin differs based on the specific use. **The point of any data strategy is to plan for the desired end-state vision.** This vision is increasingly influenced by the potential of AI as the aspirational goal for data management. In this case, outlining the approach represents the primary data management challenge of implementing AI widely across multiple sites through the smart operations roadmap.

One of the most challenging dimensions of data management is mapping data to meaningful semantic concepts. **The following figure** is a simplified illustration of semantic objects and the relationship between them; for example, a customer orders products that use assets to fulfill the orders.



This basic relationship spans multiple IT and OT systems. Harmonizing this data to make semantic sense is a monumental challenge. Typical OT data management scenarios can include:

- Two different systems integrators have been used to build separate production sites and use different naming conventions for the I/O tags at the PLC level.
- Two production sites use different SCADA vendors with different naming conventions and data structures.
- The (MES) is forced to create a new data model to harmonize lower-level disparities, enabling standard processes that help ensure quality control across sites.

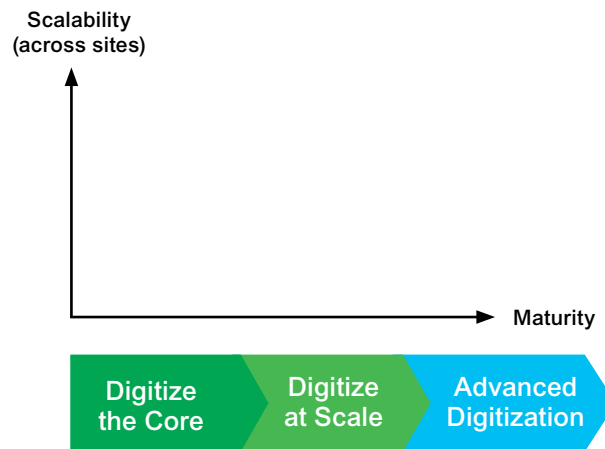
A company acquisition has resulted in two ERP systems and PLM systems in the interim that the MES must map to the different naming conventions of the recipe, production, and purchase order data.

A disciplined, programmatic approach to ensuring consistency is critical to the multi-site scalability of systems for performance management, work process standards, analytics, AI, etc.

Scaling digitization allows you to:

- Gain labor efficiency insights.
- Empower workers with easily accessible real-time data and the status of production lines.
- Strengthen Lean management practices such as short-interval management.

Once you have developed a blueprint for your facility, the next step is determining how to create a standard to transform other sites. As demonstrated below, scaling across sites represents a different dimension of the transformation challenge.



Multi-site transformation isn't a "one size fits all" approach

The central challenge of applying a blueprint across sites arises from the fact that no two spaces are identical. Four factors contribute to common differences across plants, so it is important to consider the following ways that make them unique:

1. **Work process-related:** Product variety drives different production methods. In the food and beverage industries, for example, a master recipe for a single product can exist as multiple variations as site-specific or line-level recipes reflect packaging configurations, unique needs of local markets, and differences in raw-material sources.
2. **Equipment and automation-related:** Facility age (older production technologies and equipment), disparate levels of automated vs. manual processes, disparate system architectures, etc., are sources of uniqueness. Often, these differences can be traced back to different vendor partners (EPCs, systems integrators, hardware, and software) used at different stages of the plant lifecycle.
3. **Workforce-related:** Differences in local culture, regulatory requirements, operating philosophies (like Lean), labor market dynamics affecting talent and skills availability, and more impact the workforce.
4. **Metrics-related:** Plants can support the supply chain strategy differently. For example, a "cost facility" making low-margin products might emphasize utilization metrics, whereas a "launch facility" might focus on time and responsiveness.

Takeaway: Adopting an advanced manufacturing blueprint across sites can get complicated. The standardization effort will likely fail if the blueprint is treated as a "copy-and-paste" exercise and these four factors are not considered. To increase rollout success, assess "common vs. unique" upfront if the intent is to scale the blueprint as a standard across sites.



How are companies approaching multi-site deployments?

Companies generally approach multi-site deployments following one of three models:

1. **Decentralized:** Each site has full autonomy over its vision for advanced manufacturing and establishes the pace of transformation to achieve that vision.
 - Pros: This approach is commonly seen in the continuous process industries with large sites with hundreds or thousands of employees. Typical of large CapEx investments (or with a greenfield site), the business case justification is for the single site designated as a smart facility.
 - Cons: Each site transforms at its own pace with little to no opportunity to lower costs across sites through coordination and shared resources.
2. **Templatized:** Pilot or first site efforts are intended for reuse and adoption by other sites, with the anticipated "reusability savings" part of the expected ROI and success criteria. Success varies based on the "common vs. unique" aspects of the specific system or application being implemented.
 - Pros: The "copy-and-paste" approach is viable only if minimal site-to-site differences exist and plants are expected to use the template without customizations.
 - Cons: If each site customizes the system to its unique needs, this negates expected cost savings through reuse. This results in slow/stalled rollouts, uneven adoption success "not invented here mentality", limited to no lifecycle governance, and the inability (or high cost) to upgrade site instances.
3. **Centralized:** A cross-functional team with a task-force structure is established upfront. The team tackles the "common vs. unique" design exercise. It creates guidance explaining how this impacts the system architecture along with a clear governance model designed to manage the lifecycle of the enabling system. All too often, it is only when the templatized approach has failed that the value of the centralized approach gets appreciated.
 - Pros: This approach works well and is vital for large networks with disparate sites where value/ROI/business case is at network scale, the speed of transformation (time-to-value) is imperative, and there is a need for consistent adoption through change management.
 - Cons: A lack of experience and the temptation to pursue a "quick fix" creates reluctance. Overcoming this requires educating executive sponsors on lessons learned and setting realistic expectations for an upfront investment of time and resources and pace of rollout.

Takeaway: Each approach has advantages and limitations, so knowing the tradeoffs upfront and selecting the right deployment model is key to meeting your company's goals and expectations. At Schneider, we have taken the best of all three approaches and combined them into a hybrid, bimodal operating model that allows us to drive the right changes while capitalizing on the benefits of standardization and centralization. That is what has worked for us.

What should smart operations vision for disparate sites strive for?

By thinking of the path to advanced manufacturing as a "crawl-walk-run" evolution, the disparities across sites can be segmented along three levels of maturity (to keep it simple):

Level 1: Developing: Some sites may be considered too old or small to qualify for the smart operations criteria. For such sites, investing in a defined set of capabilities makes sense to ensure they meet a minimum set of corporate standards.

Level 2: Standard: This is the common denominator or baseline regarding the standards to be met. The criteria for defining the baseline for "smart" in terms of automation, work processes, workforce and skills, and performance varies by industry and company. For example, the enabling capabilities for "smart" are quite different for semiconductor fabrication facilities and those used in agribusiness operations.

Level 3: Advanced: Demonstrating the art of the possible is the objective of advanced sites. Their goal is to experiment, push the boundaries in operating a future-focused facility, and serve as an inspiration for the other sites. Some advanced facilities use the "lighthouse" designation if the goal is to attain world-class recognition.

Conclusion

At the end of the day, the goal in manufacturing is to maximize production and save costs without compromising safety, company culture, or product quality.

Schneider Electric is your digital transformation partner

Every digital transformation is different, and each one is challenging because it requires buy-in from the full organization from the C-suite to production line workers. While each facility begins the journey from a different place, with different strengths and challenges, achieving success requires the same focus on people, processes, and technology. Whether you have a brownfield or greenfield site, you can develop and follow a roadmap leading to industrial digital transformation. Every manufacturer can do this, and you don't need to do it alone. Schneider Electric can help.

We are not just consultants with suggestions and ideas for transformation. We are one of the three largest electrical manufacturers in the world, and we are smart facility practitioners and partners with first-hand experience running manufacturing facilities and managing a robust global supply chain. We straddle the worlds of technology and consulting with the expertise, experience, and track record for success to help you find your path forward.

Our Industrial Digital Transformation Consulting Services draw on our extensive experience converting traditional operations into smart operations, including [five Schneider Electric facilities](#), both brownfield and greenfield, that have earned recognition from the WEF's Global Lighthouse program as some of the most advanced and sustainable on Earth. They all use Schneider's systems in their core operations and follow a replicable model that we can share with you.

Reimagining operations can seem like a threat to that, but with the right partner you won't need to worry. If you're ready to transform but don't know where to start, Schneider can help. We can give you a free tour of one of our smart facilities online or in person or conduct a digital readiness assessment to help you make sense of the journey ahead.

[Get in touch](#)

Schneider Electric has helped plenty of industrial clients on this journey, and that experience is the foundation for how we serve our customers. With our **Industrial Digital Transformation Consulting Services** team, we're here to help throughout the entire journey.



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