



The 7 Phases of Implementing

Scalable Solutions

SMEs that want fast value without chaos cannot take a blind leap. Instead, they must take measured steps that allow them to grow with their automation system.

In this whitepaper, we'll outline a phased schedule that SMEs can adopt when implementing automation into their operations.

You'll emerge with a deeper knowledge of:

- How to define a clear operational baseline before automation
- · Ways to size your system for current and future demand
- What data to clean and prepare for reliable automation performance
- How to plan and manage site installation with minimal disruption
- Why testing and operator training are key to smooth go-live
- · How to manage hypercare for stable early operations
- What steps to take to keep improving performance after launch



Phase 1: Baseline and Goals

Before choosing any technology or vendor, every organization needs a solid, fact-based starting point. This phase is about building that foundation with real data and clear objectives.

Map order lines per hour by day and time to reveal operational rhythm.

Focus on:

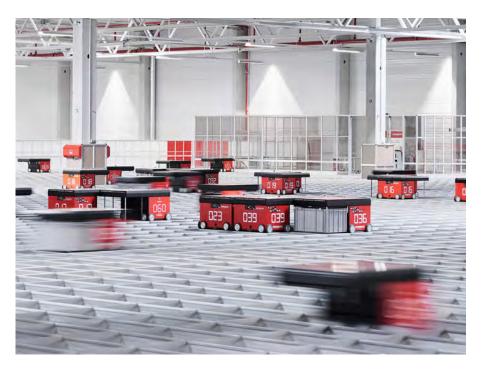
- When demand peaks
- When it slows
- Where capacity strains

Next, look at your product mix. List the top SKUs by pick frequency and size class to understand which items will shape system design and storage strategies. You can then define your service promise.

TIP:

Be sure to use something specific and measurable, such as "ship by 16:00 same day." This becomes the guiding principle for every design decision that follows.

66 Map order lines per hour by day and time to reveal operational rhythm 99



Finally, set concrete success metrics. Targets like "reduce average cycle time by 40%" or "cut overtime by 50%" give teams a clear sense of direction and make progress measurable.

Baseline work often reveals patterns that challenge assumptions. Skipping it can lead to costly missteps, such as automation that's underused, or systems that fall short when demand surges.



Phase 2: Right-Size the Core

With a clear baseline in place, you can size your system to fit what your business actually needs, considering both the present and future.

Start by matching the following to current order profiles and credible growth forecasts:

- Storage capacity
- Picking speed
- · Total volume handling

This keeps the design grounded in reality rather than optimistic projections.

TIP:

The goal here is balance: enough capacity to meet realistic demand without overbuilding or locking into something that will age too quickly.



TIP:

Verify ergonomics at every step. Well-designed workstations keep people safe, reduce fatigue, and maintain throughput. Next, outline the initial investments for robots, ports, and conveyors. These numbers form the foundation of the financial plan and help build confidence among stakeholders. Evaluate each component for scalability.

Finally, plan for clean, simple infeed and outfeed flows. The automated core should connect smoothly with upstream and downstream processes. By right-sizing the system now and building in modular flexibility for later, your organization can deliver immediate value while keeping options open for future expansion.



Phase 3: Process Definition, Data, and Slotting Preparation

Before launch, your focus should be on defining and aligning warehouse processes, as well as cleaning and validating item master data – making sure the following are accurate and complete:

- Dimensions
- Weights
- Process steps for inbound, outbound and exceptions

Bad data or unclear processes lead to bin allocation errors, slow picking, and even safety risks when robots handle items incorrectly.

TIP:

Place high-velocity SKUs in a multitude of bins to ensure availability at each pick port.

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Working within Element Logic's proven process standards helps teams avoid common failure points and ensures your automation system functions as intended. It creates a shared framework for how data, slotting, and workflows interact.



Phase 4: Site Works and Installation

This is where plans become physical. Work starts with preparing the site:

- Checking the floor for levelness
- Confirming load-bearing capacity
- Ensuring the power supply meets system requirements

Skipping or rushing this step can cause costly delays and long-term performance issues.



TIP:

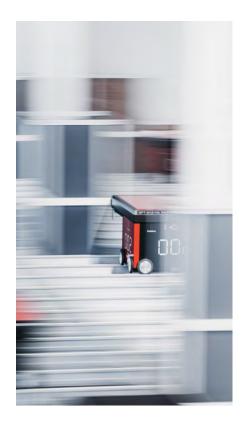
Even minor deviations from the design can create issues that only surface during testing, so careful oversight and realistic timelines are key.

Once the site is ready, installation begins. The grid, robots, ports, and conveyors are set up according to vendor specifications. This phase requires tight coordination between contractors, vendors, and internal teams.

Next comes system integration. The warehouse management system (WMS) and warehouse control system (WCS) must communicate seamlessly, with clearly defined handoffs and tested error-handling protocols.

Because installation is the most visible phase, it often draws attention from across the organization. Progress updates should be transparent, with honest communication about challenges or delays.





Phase 5: **Dry Runs and Training**

Before processing live orders, you must test your system thoroughly. Start with empty-bin cycles to confirm that:

- Robots move correctly
- Grids align
- Ports function as expected
- Volume and throughput delivers upon

Dry runs catch issues early. Test all SKU types and build from small pilots to full loads.

Next, trial live orders during off-hours. This will allow you to simulate real conditions without affecting customer service. Controlled testing exposes timing gaps, bottlenecks, and edge cases that only appear under live workloads.

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Operator training comes next. Staff working at ports and packing stations need to understand both the "how" and the "why" of the new system. Training should go beyond basic instructions to teach operators how to spot and respond to issues, and keep processes flowing.

Finally, build a small super-user team for escalations. These individuals gain deeper technical knowledge and act as the first line of support between operators and vendors. They also help others adapt to new workflows.

TIP:

In each round of testing, increase volume and complexity until performance is stable and predictable.



Phase 6: Go-Live and Hypercare

Go-live begins with control and focus. Start by processing limited volumes so your team can monitor performance and adjust before scaling up. This approach builds confidence, reduces risk, and keeps the transition manageable. Rollout plans should balance return on investment with operational stability to avoid pushing the system faster than it's ready to go.

During early operations, track key performance metrics, including:

- Overall throughput driven by bin wait times, queue depth and conveyor speed
- Operator errors and system usage





TIP:

The goal is to keep orders moving while logging problems for deeper review later.

These numbers show how your system behaves under real conditions and helps spot bottlenecks early. Small issues are normal at this stage, but quick action prevents them from growing into major disruptions.

Hypercare demands speed and teamwork. Keep a short daily standup until operations stabilize. These quick meetings align everyone, surface recurring issues, and keep decisions flowing. Your team's focus should be on maintaining reliability and learning from each adjustment.

Within two to four weeks, most organizations move from hypercare to steady-state operations.





Phase 7: **Optimization**

Once your system is stable, the focus turns from fixing problems to improving performance. Start by analyzing system logs to spot:

- Dig depth issues and Queue imbalances
- Line balance and potential end-of-line bottlenecks
- Other inefficiencies that weren't obvious during launch

These insights guide small, targeted changes that build meaningful gains over time.

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Next, refine order release and wave strategies. The right release pattern may differ from how orders were handled before automation. Experiment with timing and batch sizes to align throughput with system capacity and customer promises. Even small adjustments can improve flow and resource use.

Finally, document every change and its impact. This creates a record of what works and what doesn't, turning short-term improvements into lasting knowledge. Over time, these lessons feed back into future cycles of optimization and system expansion.

TIP:

Revisit port staffing plans as real data comes in. Initial assumptions often miss how demand fluctuates between shifts or days.





Conclusion

This phased approach outlined above has the potential to drastically reduce risk and shorten the time to value for SMEs implementing warehouse automation.

By establishing clear baselines, right-sizing initial investments, preparing data thoroughly, executing careful installation, testing comprehensively, managing go-live deliberately, and committing to ongoing optimization, your organization can create a foundation for sustainable automation success.

Each phase builds on the previous one, and rushing any stage introduces risks that undermine the entire initiative. This progression balances urgency with discipline, helping SMEs compete in automated supply chains.

Want to see how it would look in your organization?

Reach out for a <u>free consultation with one of our experts</u> for a personalized look at how we can take your warehouse to the next level.

