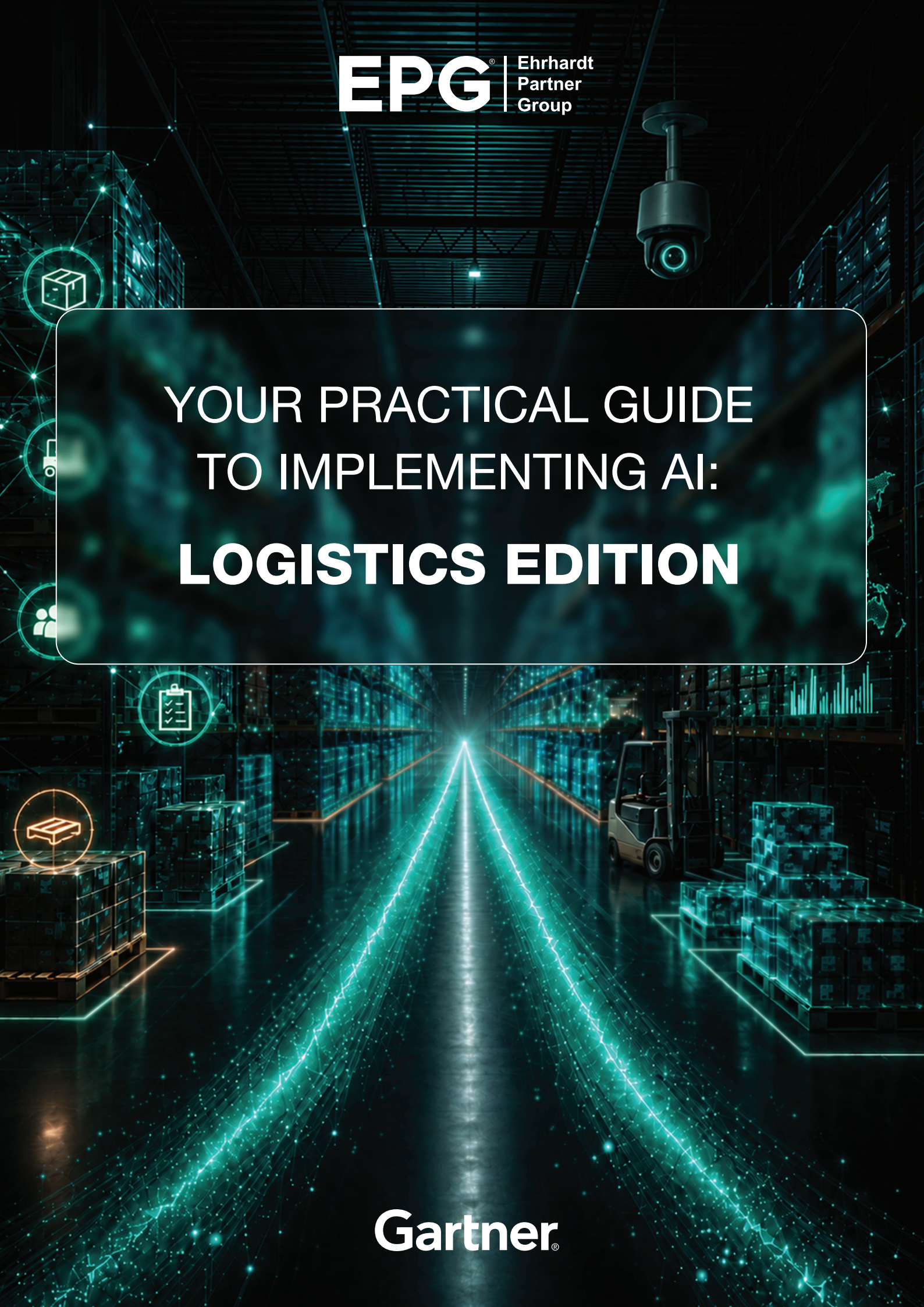
EPG® Ehrhardt Partner Group

YOUR PRACTICAL GUIDE TO IMPLEMENTING AI:

LOGISTICS EDITION



Gartner®



DESIGNING AI FOR REAL-WORLD LOGISTICS

AI is no longer a trend in supply chain. It's become a structural requirement for operating at scale under volatility. Gartner reports that 95% of organizations are already aggressively embedding AI into their systems, underscoring how quickly experimentation is becoming operational reality. Every boardroom agenda focuses on a future of agentic logistics and warehouses that think for themselves. The vision is clear, but for many logistics leaders, the roadmap to get there is not.

AI isn't a magic switch. The software delivers value when embedded in real processes, supported by reliable data, and aligned with how people actually work on the floor and behind the screens. Without that foundation, AI initiatives disappoint.

This is especially true when AI is positioned as a replacement system. Swapping out your WMS or TMS won't automatically solve decision bottlenecks. In many environments, introducing an AI layer on top of stable execution systems accelerates value while minimizing operational risk.

AI IS NOT:

- A **replacement** for experienced supervisors or stable systems
- A **one-time** software installation
- A **fix** for broken processes

AI IS:

- A **decision-support** layer
- A **system that learns** from outcomes over time
- An **enhancement** that works across existing WMS, WCS, TMS, and ERP environments

IT'S TIME TO TURN AI MOMENTUM INTO OPERATIONAL ACTION, SO LET'S JUMP IN.

STEP 1

START WITH AN HONEST ANALYSIS

Start with the problem, not the platform. It's tempting to begin with vendor demos and bold AI promises. But too often, organizations invest in intelligent tools before they fully understand what needs fixing. When that happens, results are limited.

AI accelerates whatever already exists. If the process is clean, it gets sharper. If the process is messy, it gets messier. Before you evaluate tools, look at how operations work on a Tuesday afternoon during peak volume.

AI is most effective when it supports decisions that are frequent, time-sensitive, and dependent on incomplete information. Locating those points creates a map for everything that follows.

AI READINESS QUIZ: ARE MY OPERATIONS READY FOR AN AI LAYER?

Answer each question with Mostly Yes, Somewhat, or Mostly No.

Do all core execution systems (WMS, TMS, MFC, workforce tools) share data automatically?

- ○ Mostly Yes
- ○ Somewhat
- ○ Mostly No

Can supervisors see real-time status without calling or walking the floor?

- ○ Mostly Yes
- ○ Somewhat
- ○ Mostly No

Are decisions based on system recommendations rather than personal experience?

- ○ Mostly Yes
- ○ Somewhat
- ○ Mostly No

Do planners trust system outputs enough to act on them without manual rework?

- ○ Mostly Yes
- ○ Somewhat
- ○ Mostly No

Can the system adapt plans during the day when conditions change?

- ○ Mostly Yes
- ○ Somewhat
- ○ Mostly No

Results:

Mostly Yes
→ You're AI-ready in places. Start with targeted pilots.
Somewhat
→ Focus on decision mapping and data cleanup first.
Mostly No
→ Pause. Stabilize foundations before layering intelligence.

STEP 2

IDENTIFY USE CASES

Before selecting a model or platform, identify where your processes lag. These are your initial AI use cases. The most promising opportunities consist of a recurring problem with usable data.

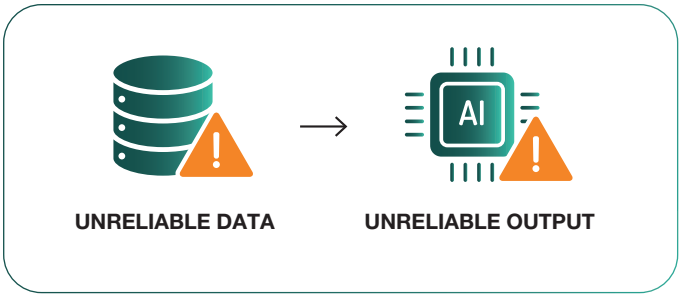
Gartner's 2026 survey of logistics and fulfillment respondents shows that AI is already moving beyond planning: 76% are piloting, implementing, or have fully deployed agentic AI. 85% report the same for generative AI. The question is where to begin and how to expand.

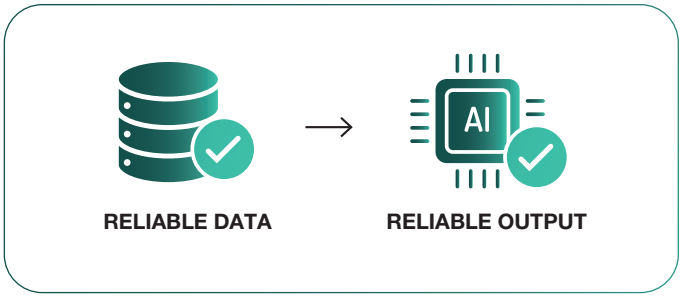
AI category	What it does	Applied logistics use case
Generative AI	Creates new content, responses, summaries, or instructions based on existing information.	**Knowledge Transfer and Labor Skills:** A conversational assistant trained on secure company data answers operational questions, retrieves organizational knowledge, and guides employees through day-to-day processes. It can also generate work instructions, shift summaries, and exception reports. **Intelligent Document Processing (IDP):** Extracts, classifies, validates, and structures information from logistics documents such as delivery notes, invoices, and customs forms, reducing manual data entry and accelerating downstream processes.
Predictive AI	Uses historical and real-time data to anticipate likely outcomes, risks, or operational requirements.	**Operational Forecasting:** Predicts workload, delays, congestion, equipment failures, or labor requirements so teams can act before disruption occurs.
Agentic AI	Pursues a defined objective by interpreting information, planning tasks, and coordinating actions across systems.	**Supply Chain Coordination and Orchestration:** Collects information across WMS, TMS, ERP, and other systems, interprets exceptions, and recommends or initiates the next best action, reducing the time between detecting a problem and resolving it.
Vision AI	Interprets visual data from cameras to identify objects, movements, conditions, and process deviations in real time.	**Intelligent Video Analytics:** Analyzes camera streams to detect movements, pallets, equipment, and workflows, transforming visual information into actionable operational insights. Natural-language instructions can define alerts, such as identifying a pallet that has remained in the inbound area for more than 30 minutes.
Physical AI	Perceives and interacts with the physical environment through cameras, sensors, robotics, and automated equipment.	**Robotics:** Enables autonomous robots and automated equipment to navigate facilities, move goods, and adapt their actions based on real-time conditions in the physical environment.
Agentic & Autonomous AI	Executes decisions independently within predefined operational and governance boundaries.	**Autonomous Operational Control:** Automatically reallocates labor, resequences work, adjusts operational plans, or responds to exceptions without requiring approval for every action.

STEP 3

FIX YOUR DATA

AI's effectiveness depends on the quality of the data it consumes. Before introducing agentic or autonomous systems, ensure that core operational information is real-time and consistent across systems. Without data cleansing and data normalization, even well-integrated systems will produce unreliable insights. If your WMS says an order is picked, your WCS shows it still in process, and your workforce system logs something different, AI can't help. You don't need to replace your systems. Simply take the time to prepare your data intentionally. Integration should ensure that systems speak the same operational language in real time so that you can see what's happening on the floor, at the dock, and on the road at any point in time.





AI READINESS CHECKLIST: IS MY DATA DISCIPLINED?

- ☐ The same event is formatted the same across systems
- ☐ Orders, SKUs, and shipments use unified identifiers
- ☐ Master data has clear ownership
- ☐ Duplicate and outdated records are removed
- ☐ Units, timestamps, and values are normalized
- ☐ Real-time status reflects what's happening on the floor

ONCE DATA REFLECTS REALITY IN A SHARED OPERATIONAL LANGUAGE, AI CAN INTERPRET IT MEANINGFULLY.

STEP 4

MOVE FROM DASHBOARDS TO DECISIONS

Most organizations already have dashboards. KPIs are tracked. Reports are shared. But analytics alone don't drive action. Predictive AI identifies what is likely to happen next, while prescriptive and agentic capabilities recommend or initiate the best response.

Traditional process mapping shows how goods move. AI cares about how decisions move. Every warehouse runs on thousands of micro-decisions each day:

- **Should this order be expedited?**
- **Can this wave be delayed?**
- **Where should labor go right now?**

Some of these decisions are formal, embedded in systems and workflows. Others are tribal knowledge, existing only in people's heads. Instead of reporting metrics, AI reports what's likely to happen next, how different decisions will impact the outcome, and what the best course of action is based on current conditions.

Instead of:

> **"Picking productivity is trending down."**

AI says:

> **"Zone 3 congestion will impact outbound in 45 minutes, so resequence work now."**

AI shifts analytics from hindsight to foresight. Start small. Identify one decision where better guidance would improve the shift, like labor reallocation, wave sequencing, or dock scheduling. Build intelligence there first and watch trust grow as teams see fewer surprises and smoother execution.

AI READINESS CHECKLIST: IS THIS DECISION WORTH EXPLORING WITH AI?

- ☐ Happens dozens (or hundreds) of times per day
- ☐ Impacts service, cost, or labor
- ☐ Time-sensitive
- ☐ Relies on experience or gut feel
- ☐ Hard to standardize with static rules

IF YOU CHECK 3 OR MORE, AI IS WORTH EXPLORING. IF YOU CHECK FEWER THAN 3, IMPROVE YOUR RULES FIRST.

STEP 5

INTRODUCE AUTONOMY GRADUALLY

Agentic AI enables systems to act independently within defined boundaries. Autonomous AI goes one step further by executing approved processes with limited or no human intervention. These capabilities are powerful, but they require careful implementation.

Importantly, autonomy doesn't require handing control to a brand-new system. It can evolve within your current environment with an AI layer across your WMS, WCS, or TMS.

Adopt the turtle mindset for this race. A gradual progression allows organizations to gain confidence and refine governance before giving AI free rein. Let your organization acclimate and gain trust in agentic workflows over time.

Despite popular narratives, AI doesn't replace the human role in logistics. It simply changes it. Well-designed AI systems lighten the cognitive load and provide smart options earlier. People remain responsible for monitoring.

When users understand why a recommendation exists and how it was generated, they're more likely to follow it. Transparency matters, and so does the ability to override or question system behavior. When teams feel supported, AI adoption flourishes. We're aiming for a healthy, symbiotic relationship here.

Autonomy should progress in stages.



1. Observation
AI monitors and detects patterns



2. Recommendation
AI suggests actions



3. Assisted execution
AI performs tasks with approval



4. Controlled autonomy
AI acts independently within rules

3-MINUTE EXERCISE
SET YOUR BOUNDARIES

1. Write down one daily decision (example: labor reallocation mid-shift)

2. Now answer honestly: Would I let AI…

- ☐ Just monitor and alert me?
- ☐ Recommend what to do?
- ☐ Execute with my approval?
- ☐ Execute without asking me?

→ **WHERE YOU HESITATE IS YOUR TRUST BOUNDARY.**

STEP 6

MEASURE IMPACT

AI success should be measured in operational outcomes. Your control room can rival Batman's lair, but even a hundred dashboards can't capture the full scope of AI's impact.

Meaningful success shows up in day-to-day warehouse floor functionality. Decisions happen faster. Exceptions are resolved earlier. Assets are used more effectively.

Avoid vanity metrics like "number of AI models deployed" and focus instead on how daily work improves. "X% more orders filled per day" or "X% fewer errors" will matter more during quarterly reviews.

Measure each use case against a defined set of operational KPIs established before implementation, such as recognition accuracy, time saved, exception-resolution time, throughput, error rate, service levels, or safety incidents. AI also enables real-time performance insights by continuously analyzing process data, helping teams detect deviations and optimization opportunities earlier than traditional reporting.

Combined with technologies like Intelligent Video Analytics and Intelligent Document Processing, AI turns visual and unstructured data into actionable insights, uncovering hidden optimization potential and enabling faster, more informed operational decisions.

If it doesn't change behavior, it doesn't count.





LOOKING AHEAD

AI can feel like a shiny warehouse utopia. But it's simply better decision support.

The organizations that benefit most will be those that approach AI as an operational transformation, not as a standalone technology project. AI readiness means connecting the dots across processes, data, and systems throughout the enterprise. Before intelligence can create measurable value, companies need to understand where decisions are made, which processes create friction, how reliable their data foundation is, and where automation can realistically support people in their daily work.

This is where consulting plays a critical role. EPG helps organizations move from ambition to a clear AI roadmap by identifying relevant use cases, assessing operational readiness, mapping decision flows, and defining the right implementation path. The goal is not to introduce AI for its own sake, but to focus on areas where intelligence can improve execution, reduce complexity, and create measurable operational impact. At the same time, AI needs to connect with real systems and real processes. With EPG AURA, EPG provides an AI-native environment that brings intelligence into supply chain execution and supports smarter decisions across warehouse, transportation, workforce, and operational workflows.

Together, consulting expertise and AI-native technology create a practical path forward: from readiness assessment and use-case definition to scalable implementation in live logistics environments.

You now have the framework. The advantage comes from execution.
If you're ready to explore where AI can create meaningful impact in your operation, we welcome the conversation.

LET'S DEFINE YOUR FIRST MOVE!
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Research from Gartner

The Top 4 AI Trends Transforming Warehousing

ISSUE

Gartner's research shows warehousing is at an inflection point driven by three converging forces: labor constraints making automation non-negotiable, capital models shifting to lower-risk entry points, and AI and autonomy technologies reaching operational maturity. According to the latest results of the Gartner user wants and needs survey, on average, 95% of organizations are planning to invest in, piloting or implementing AI among warehousing systems (see Figure 1).

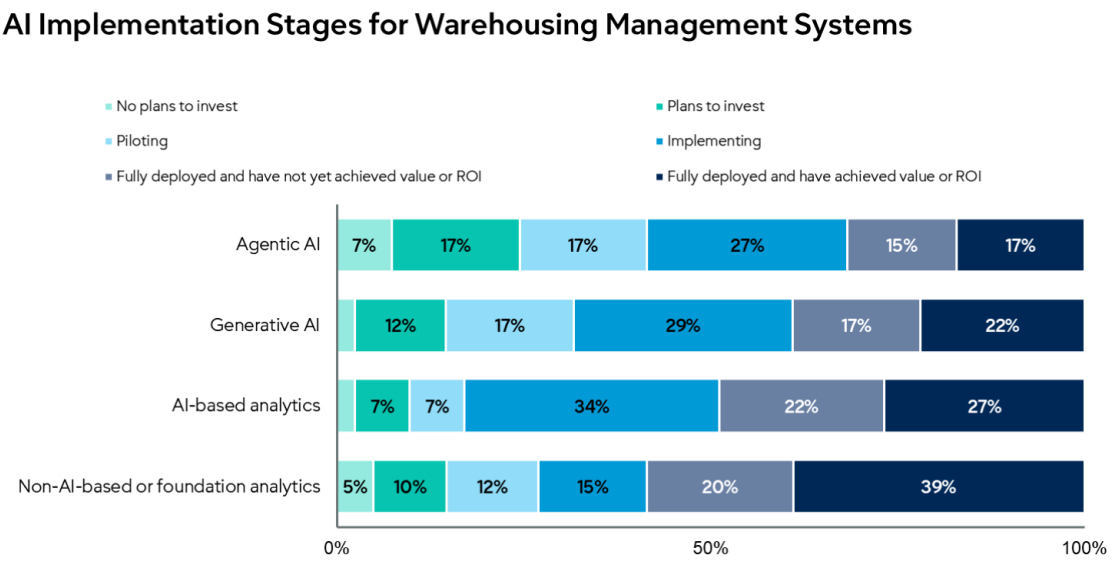
Our research has identified the top four AI trends that are vital to warehouse digital transformation. These trends are deeply interconnected, mirroring the complexities of an AI-driven, hyperconnected warehousing ecosystem.

Success in leveraging these technologies will hinge on building trust through transparent AI decision making, enabling autonomy by empowering both human workers and intelligent systems to collaborate seamlessly, and driving specialization by fostering tailored solutions that address unique operational challenges — ultimately creating a resilient, adaptive, and future-ready warehouse environment. Warehousing organizations that strategically invest in these capabilities will be best positioned to drive a competitive advantage and shape the future landscape.

We have organized this year's warehousing AI technology into four categories, each representing a distinct dimension of AI maturity and application:

1. **Traditional AI (predictive and rule-based):** Encompasses predictive analytics, rule-based automation, and compliance monitoring. These technologies ensure reliability, auditability, and transparency in warehouse operations, building foundational trust for AI adoption.

Figure 1: AI Implementation Stages for Warehousing Management Systems



n = 41; all respondents whose primary supply chain function that their role relates to is logistics and fulfillment
Q: Please select which stage of implementation best describes your organization's adoption of the following cross-functional technologies: warehouse management systems
Source: 2026 Gartner Supply Chain Technology User Wants and Needs and Digital Value Realization Survey
Note: Data labels of 3% or less are omitted.

Source: Gartner
851648

Gartner

2. **Generative AI (content and pattern generation):** Covers AI systems that synthesize knowledge, generate operational plans, and support advanced decision making. Generative AI enables tailored SOPs, exception handling, and dynamic labor standards, enhancing warehouse intelligence and adaptability.

3. **Agentic AI (autonomous, goal-driven agents):** Involves autonomous agents capable of end-to-end task execution, orchestration, and real-time problem resolution. Agentic AI empowers warehouses with self-directed scheduling, task management, and exception handling, reducing manual intervention and accelerating responsiveness.

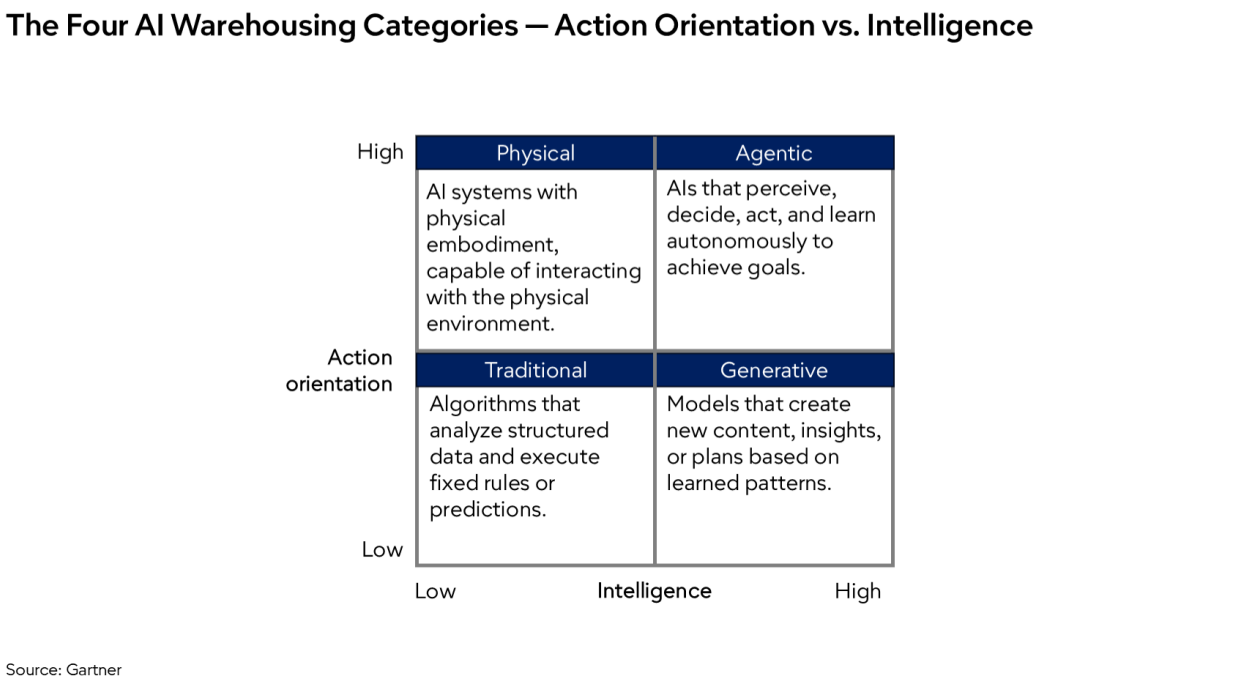
4. **Physical AI (embodied intelligence and robotic control):**
   Focuses on embodied AI systems — robots and cobots equipped with advanced sensorimotor skills. Physical AI transforms warehousing by enabling safe, precise, and adaptive manipulation of goods, from robotic picking to autonomous material handling.

IMPACT

AI technology trends for warehousing are poised to fundamentally transform warehousing operations, setting new standards for innovation, resilience, and operational trust.

- These trends are global in scope and highly disruptive, requiring strategic attention from warehouse leaders, operations executives, and technology strategists.
- The impact of these trends extends beyond technological upgrades — they are driving a broader business transformation. Early adopters of AI in warehousing will achieve operational excellence, shape industry standards, and build digital trust with stakeholders.
- Leading warehousing organizations that integrate these AI capabilities will be best positioned to adapt quickly to market shifts, labor challenges, and demand fluctuations.
- Regularly evaluating and adopting new AI trends is essential for sustaining competitive advantage. Proactive organizations will be better equipped to innovate, respond to disruption, and capture new opportunities in the rapidly evolving warehousing landscape.
- Success for tomorrow will depend on balancing two dimensions of AI — "action orientation" and "intelligence sophistication" — across the four core categories (see Figure 2).

Figure 2: The Four AI Warehousing Categories — Action Orientation vs. Intelligence



Source: Gartner
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IMPLICATIONS

Enhanced Optimization-Oriented Traditional AI

Description

Optimization-oriented traditional AI in warehousing is evolving beyond its traditional roots of rule-based and statistical models. While these mature systems have reliably optimized operational performance within well-defined parameters, recent enhancements leverage richer real-time data and more sophisticated algorithms to deliver even greater efficiency. Today's demand forecasting and labor-planning tools not only analyze historical transactions and KPIs but also adapt dynamically to changing conditions, minimizing workforce imbalances more precisely. Modern route optimization engines and inventory models incorporate ongoing sensor readings, enabling faster and more accurate responses to fluctuations. Automated inspection routines and anomaly detection rules now catch process deviations earlier, thanks to improved data integration and analytics. These innovations maintain the transparency and repeatability of traditional optimization-oriented AI but deliver measurably better cost savings, resource utilization, and ROI — setting a new benchmark for operational excellence within established constraints.

Why Trending

Recent advances in optimization-oriented AI are transforming warehousing by building on traditional methods with smarter, more adaptive capabilities. Unlike earlier systems that relied on static rules and manual adjustments, today's solutions use real-time data and advanced machine learning to dynamically fine-tune demand forecasting and labor planning, ensuring optimal workforce allocation even as order volumes shift unpredictably. Modern route optimization engines now continuously update travel paths based on current warehouse conditions, further minimizing travel times. Enhanced inventory slotting and replenishment models proactively anticipate and prevent stock-outs and overstocks, while automated inspection routines and anomaly detection algorithms catch process deviations earlier and more accurately than before. These innovations deliver greater cost savings, improved resource utilization, and stronger, data-driven ROI, setting a new standard for operational efficiency in warehousing.

Use Cases

- Adaptive labor models that optimize staffing for real-time and forecast order peaks
- Advanced slotting that minimizes put-away and picking times using current and historical data
- Intelligent replenishment alerts triggered at optimal safety stock levels through continuous monitoring

Strengths and Limitations

Strengths:

- Is proven, reliable, and transparent — optimization logic is easy to validate and audit
- Delivers stable, repeatable performance for well-defined, repetitive tasks
- Has low technical complexity compared to newer AI paradigms, with clear optimization objectives

Limitations:

- **Rigidity:** Optimization routines may struggle to adapt quickly to unexpected events or shifting constraints.
- **Narrow scope:** Each model or rule set focuses on optimizing a specific process in isolation.
- **Slow iteration cycles:** Updating optimization parameters or retraining models requires manual intervention.

Recommended Actions

- Target high-impact, repeatable processes (e.g., labor forecasting, slotting) for optimization using mature predictive and prescriptive models.
- Standardize data pipelines, KPIs, and governance for optimization-driven automation.
- Plan for incremental optimization: schedule quarterly reviews to refine rule sets, update optimization parameters, retrain models with fresh data, and assess new AI capabilities for future upgrades.

OPERATIONAL-DRIVEN GENERATIVE AI

Description

Operational-driven generative AI consists of advanced machine learning models — such as large language models and generative adversarial networks — purpose-built to synthesize actionable content, plans, and operational insights from unstructured and semistructured data sources (e.g., text, images, workflows, and historical records). Unlike traditional generative systems that focus on content creation alone, operational-driven generative AI is tightly integrated with warehouse processes, transforming synthesized outputs into operational playbooks, real-time instructions, and decision support tools that drive day-to-day execution.

These models excel at generating dynamic procedures, adaptive strategies, and contextual explanations that can be directly embedded into operational workflows.

Why Trending

Operational-driven generative AI is rapidly transforming warehousing by automating and optimizing the creation and deployment of critical operational content. It generates and updates SOPs, receiving and put-away instructions, and exception-handling protocols in real time — leveraging live data such as SLAs, SKU profiles, throughput rates, and labor availability to ensure operational relevance. By autoproducing training manuals, digital work instructions, and interactive copilots, it accelerates onboarding and continuous improvement, keeping staff aligned with evolving requirements. Its scenario simulation, root cause analysis, and natural language explanation capabilities are directly embedded into operational dashboards, reducing administrative overhead and enabling faster, more informed decision making. The result is a more agile, responsive, and data-driven warehouse operation, where generative AI outputs are seamlessly actionable.

Use Cases

- Autogenerate SOPs and work instructions based on real-time SLAs and customer requirements.
- Synthesize receiving and put-away strategies by analyzing historical throughput, SKU characteristics, and labor and resource constraints, with direct integration into warehouse management systems (WMSs) or labor management systems.
- Summarize exception reports and generate actionable, prioritized insights for supervisors and planners within operational dashboards.

Strengths and Limitations

Strengths:

- Is highly adaptive — enables rapid creation and deployment of operational content in response to changing business needs
- Has a direct operational impact — outputs are structured for immediate execution or integration with WMSs
- Accelerates onboarding, compliance, and continuous improvement through automated, up-to-date documentation and training

Limitations:

- Requires robust integration with operational systems (e.g., WMSs, labor management, robotics APIs) for maximum effectiveness
- Needs governance and validation workflows to ensure accuracy and operational compliance of generated outputs
- Is dependent on quality of operational data and ongoing prompt and model refinement to minimize errors and maintain relevance

Recommended Actions

- Pilot operational-driven generative AI for SOP creation, exception report summarization, and real-time work instruction deployment.
- Prioritize regular data validation and continuous model updates to reduce errors and keep insights relevant.
- Expand conversational and interactive AI interfaces for frontline supervisors and planners to drive real-time operational support.

SUGGESTIVE AND SEMIAUTONOMOUS AGENTS

Description

Suggestive and semiautonomous agents are intelligent, goal-oriented systems that perceive their environment, analyze multimodal data streams, and recommend or partially execute multistep workflows in close collaboration with human operators. These agents synthesize sensor feeds, transactional data, and unstructured content to generate actionable suggestions, prioritized alerts, and semiautomated task sequences. They interact bidirectionally with WMSs, TMSs and robotics APIs, supporting humans in decision making and operational execution while retaining the ability to adapt and learn from outcomes. Human validation or intervention is built into the workflow, ensuring that agents augment rather than fully replace operator control.

Why Trending

Suggestive and semiautonomous agents are gaining traction in warehousing by bridging the gap between manual operations and full autonomy. They enhance efficiency by proactively recommending optimal task assignments, exception resolutions, and resource allocations — while still enabling operators to review, approve, or adjust actions before execution. These agents accelerate exception handling, reduce operator cognitive load, and streamline repetitive decisions, all while ensuring critical human oversight. Their flexible, human-in-the-loop approach lowers adoption barriers, supports rapid scaling, and delivers measurable productivity gains without the risks of full automation.

Use Cases

- **Suggestive waveless order execution:** Agents recommend pick-pack task sequences for operator review and dispatch across humans and robots.
- **Dynamic dock and yard scheduling:** Agents propose real-time slot adjustments based on live ETA and resource availability, with supervisor approval.
- **Assisted exception management:** Agents automatically detect mispicks or routing failures, with recommended corrective actions for operator signoff.
- **Adaptive resource allocation:** Agents monitor throughput and suggest labor or robotic redeployment to maintain SLAs, subject to manager confirmation.

Strengths and Limitations

Strengths:

- Balance automation with human oversight — reducing risk and increasing operator trust
- Rapidly adapt to changing conditions while keeping humans in control
- Streamline repetitive decisions and exception handling, improving productivity

Limitations:

- Still require robust API and data integration for effective recommendations
- Are dependent on operator engagement for final task approval and execution
- May not achieve the same speed or scale as fully autonomous systems

Recommended Actions

- Identify high-value workflows where suggestive or semiautomated support can drive measurable improvements (e.g., exception handling, task sequencing).
- Integrate agents with operational dashboards to surface recommendations and enable easy operator approval or adjustment.
- Pilot in select zones, measure impact, and iteratively enhance agent capabilities before broader rollout.

PHYSICAL AI AGENTS

Description

Physical AI agents are AI-powered robots and smart devices with physical embodiment, designed to perceive, manipulate, and interact with their environment through advanced sensorimotor control. These agents integrate AI models — such as computer vision, tactile sensing, and reinforcement learning — with robotics hardware to carry out tasks that require dexterity, mobility, and adaptability in real-world settings.

Why Trending

Physical AI agents are revolutionizing warehousing by embedding intelligent robotics directly into material-handling workflows. By automating manual processes like lifting, moving, and sorting, physical agents dramatically increase throughput and deliver consistent, high-accuracy performance in picking, packing, and sorting operations. Collaborative physical agents (cobots) enhance workplace safety by taking on hazardous or repetitive tasks, allowing human workers to focus on more strategic, value-added activities. This shift results in a leaner, more productive warehouse with lower labor costs, reduced turnover, and scalable capacity to meet peak demand.

Use Examples

- Physical AI agents performing robotic picking and packing using vision and touch sensors for fragile or irregular items
- Autonomous forklifts and pallet movers (physical agents) navigating dynamic warehouse environments
- Mobile robotic platforms (physical agents) handling dynamic shelf restocking and order consolidation
- Tactile inspection stations (physical agents) detecting product defects or damage during quality control

Strengths and Limitations

Strengths:

- Direct automation of physical workflows, delivering measurable improvements in speed and quality
- High precision and repeatability in tasks such as picking, placement, and inspection
- Safe human-robot collaboration enabled by real-time sensor feedback

Limitations:

- Significant capital investment required for robots, sensors, and integration infrastructure
- Technical complexity in calibrating, programming, and maintaining physical agents
- Environmental constraints — performance may be affected by variable lighting, floor conditions, or unstructured layouts

Recommended Actions

- Conduct a readiness assessment to identify manual processes with the highest labor costs or error rates.
- Pilot collaborative physical agents in controlled zones to validate hardware, AI models, and safety protocols.
- Integrate physical agent controls with warehouse management and automation middleware for centralized monitoring.

Source: Gartner Research Note G00851648, Federica Stufano, Simon Tunstall, 25 June 2026

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