

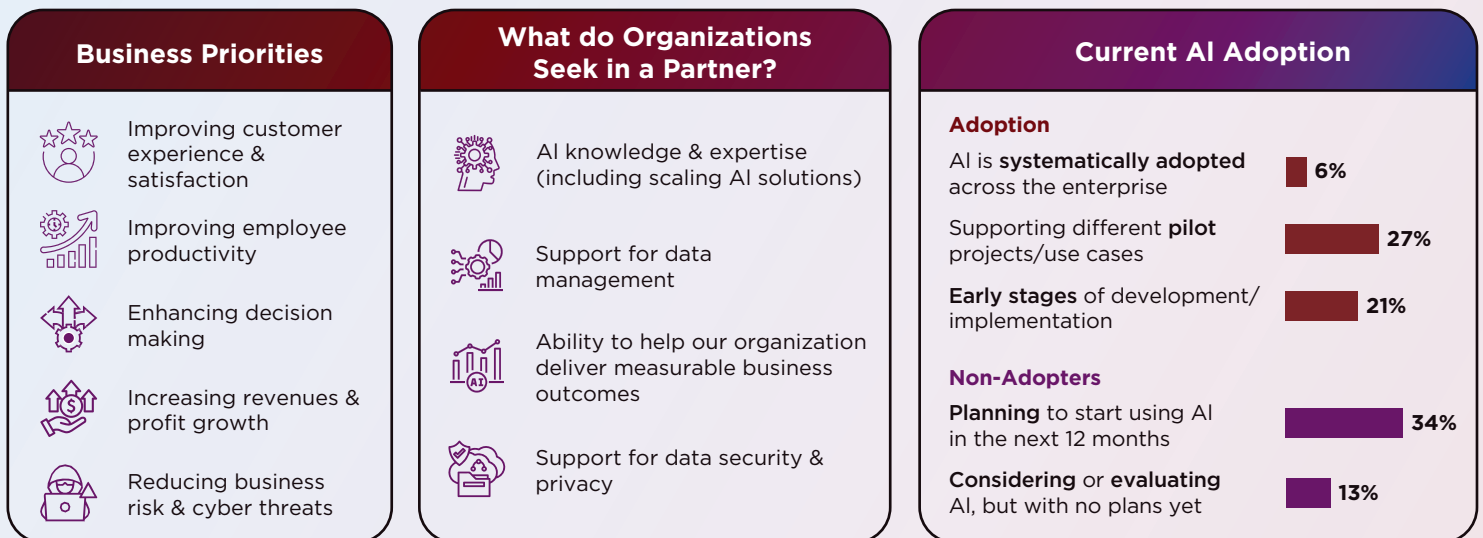


Pick Assist AMR

Smart Technology with AI drives the Future of Manufacturing

While the manufacturing sector is large and diverse, its core companies remain sharply focused on operational efficiency and product quality. To achieve this, manufacturers are increasingly adopting AI to enhance customer experience, productivity, and decision-making—with 34% planning implementation within a year. Interpretive AI (39%) and generative AI (39%) are top priorities, driven by a 159% surge in AI investment. Success hinges on sufficient budget, management commitment, and strong AI partnerships, while overcoming hurdles like scaling challenges, IT costs, and data quality.

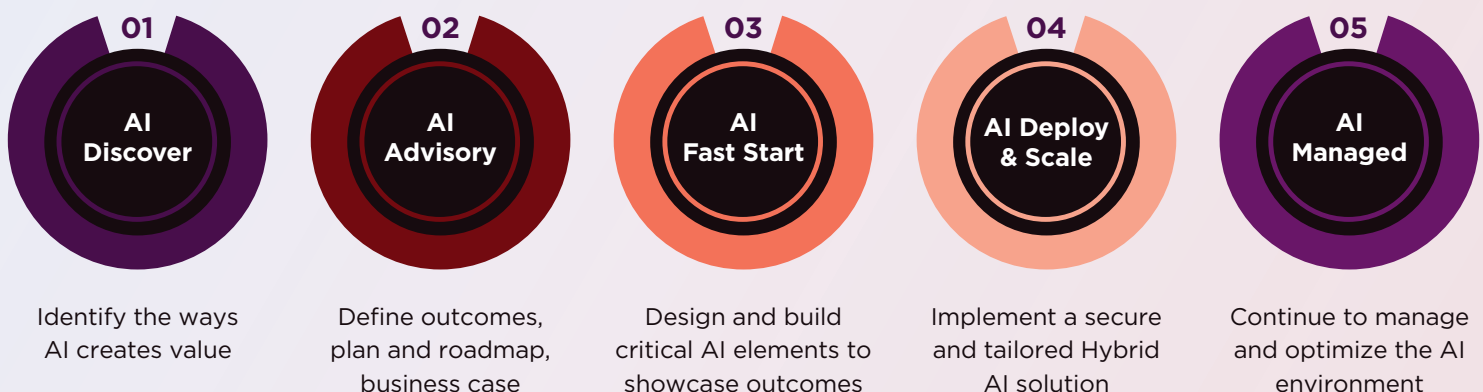
Data is central to AI in manufacturing, with production, supply chain, and quality control data as key inputs. Nearly a third of manufacturers aim to improve data management—critical for AI adoption. The primary approach is to adopt on-premises, private, or hybrid infrastructure for AI workloads, with manufacturers seeking partners for AI expertise to scale solutions.



Lenovo AI Services: For every stage of the AI journey

AI Readiness Methodology
Security | People | Technology | Processes

Proven Responsible AI Framework



Outcomes Definition and Rapid Innovation

Production

Optimization

* All data are from [2025 CIO Playbook](#).



Our Pick Assist AMR utilizes the most advanced “order-to-person” collaborative mode, eliminating the need for manual route planning, warehouse redesign, or human intervention. When the order comes in, the robot intelligently plans its optimal path based on the order details. It then guides the nearby worker to place the goods onto the robot’s carrier. Once the order is placed, the robot autonomously proceeds to the next pick-up point. The worker does not follow any single robot, but simply moves within a small area and cooperates with different robots.

Comparison of Sorting Modes

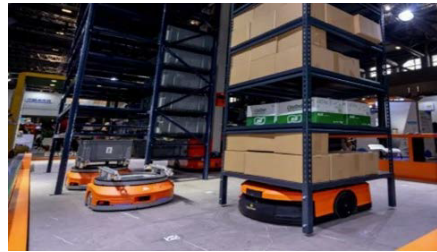
Investment: **LOW**
Operational costs: **HIGH**
Efficiency: **LOW**



Person-to-Goods

Workers run to each storage location to pick up items according to the order list and bring them to the shipping area.

Investment: **HIGH**
Operational costs: **MID**
Efficiency: **HIGH**



Goods-to-Person

Workers stay at the sorting area and goods are brought to the workers by automated system, such as AGV/AMR.

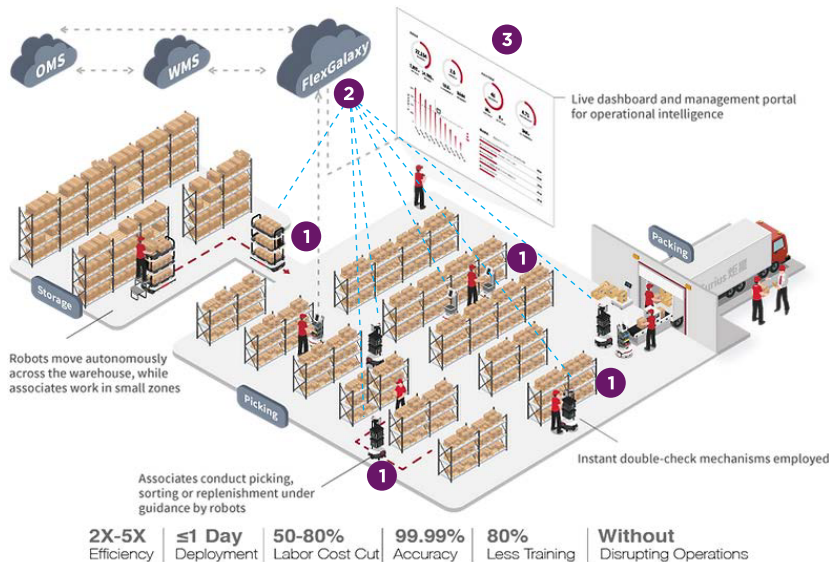
Investment: **MID**
Operational costs: **LOW**
Efficiency: **HIGH**



Order-to-Person

Robots intelligently plan pick-up sequence based on the order task. Upon reaching the storage location, it guides the nearby workers to place the goods into the carrier.

System Configuration



1



AMRs are navigated by VSLAM and do not need physical guidance like QR label or meg tracks.

2



FlexGalaxy is the IT/OT system interface which obtains order information from customer ERP.

3



RCS (Robot Control System) is a cloud-based system that generates handling tasks according to the order information, then dispatches to AMRs.



Cosmetics



Clothing & Apparel



Pharmaceutical



Consumer Electronics



Retail



E-Commerce



3PL



Manufacturing

2X-5X Efficiency

A breakthrough in efficiency achieving greater ROI. Payback in 10 months - 2 years. Lower maintenance and operation costs

Rapid Deployment

No need to change the current layout and racks. No interruption to daily operation. It takes only 4 hours to complete deployment in a 1000m² warehouse.

Instant Adaptability

Pick Assist AMRs aren't fixed assets so changing workflows or re-deploying them to other locations is a breeze. Move autonomously without extra markers or fixed installation.

Live Dashboard (Data Visualization)

Make operation management easy and efficient. Check real-time progress, task status, heat maps, etc.

Mezzanine Management

Robots can run smoothly at mezzanines without structural change optimizing multi-level fulfillment.

Lenovo's global strength

180

Markets

10M+

Order lines per year

1B+

Global customers

120M+

Shipments

30+

Global manufacturing sites

2000+

Suppliers

>\$160M

Digital transformation
investment

18

R&D locations worldwide

69.5K

People



Global supply chain ranked
8th by Gartner®



World Economic Forum
Global Industry 4.0
Lighthouse Recognition



AAA-rated for ESG by MSCI

Revolutionize order fulfillment
with collaborative intelligence.

**Pick Assist AMR unlocks peak
warehouse efficiency — today.**

Contact us today to discover how Lenovo Manufacturing
Solutions can bring the future of manufacturing to you.
Learn more on: <http://lenovo.com/manufacturing>

©2025 Lenovo. All rights reserved.

**Smarter
technology
for all**

Lenovo