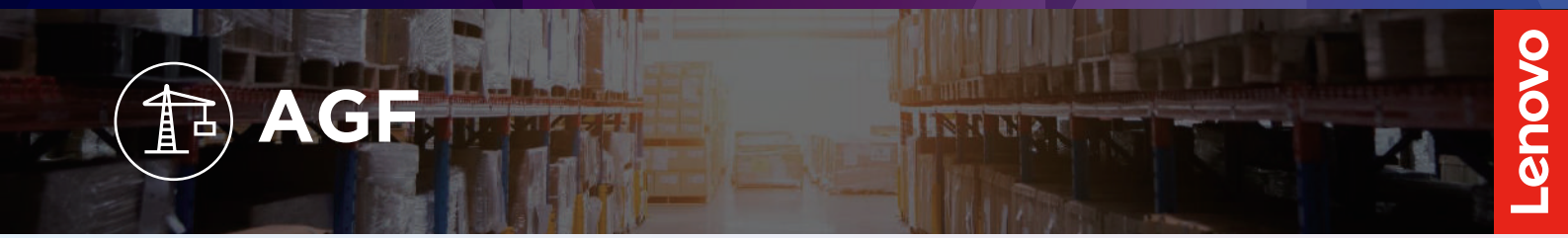


AGF

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.

Business Priorities

- Improving customer experience & satisfaction
- Improving employee productivity
- Enhancing decision making
- Increasing revenues & profit growth
- Reducing business risk & cyber threats

What do Organizations Seek in a Partner?

- AI knowledge & expertise (including scaling AI solutions)
- Support for data management
- Ability to help our organization deliver measurable business outcomes
- Support for data security & privacy

Current AI Adoption

Adoption

AI is **systematically adopted** across the enterprise	**6%**
Supporting different **pilot** projects/use cases	**27%**
Early stages of development/ implementation	**21%**

Non-Adopters

Planning to start using AI in the next 12 months	**34%**
Considering or **evaluating** AI, but with no plans yet	**13%**

Lenovo AI Services: For every stage of the AI journey

AI Readiness Methodology
Security I People I Technology I Processes

Proven Responsible AI Framework

01	02	03	04	05
AI Discover	AI Advisory	AI Fast Start	AI Deploy & Scale	AI Managed
Identify the ways AI creates value	Define outcomes, plan and roadmap, business case	Design and build critical AI elements to showcase outcomes	Implement a secure and tailored Hybrid AI solution	Continue to manage and optimize the AI environment

Outcomes Definition and Rapid Innovation → Production → Optimization

* All data are from 2025 CIO Playbook.

Smarter logistics. Smarter warehouse.

The manufacturing industry faces escalating labor costs, prompting a shift towards logistics automation. The **Automated Guided Forklift (AGF)** offers a revolutionary solution, leveraging advanced technologies like autonomous platforms, AI, and deep learning to redefine industrial vehicles. With **high precision positioning** and **perception capabilities**, the AGF is well suited for various warehouse scenarios, seamlessly handling loading, unloading, put away and picking tasks to enhance operational efficiency. Implementation of the AGF has boosted cargo handling and warehouse efficiency by nearly **20%**, allowing businesses to reduce operating costs through sustainable logistics automation.

Superior Intelligence

Equipped with cutting-edge AI and deep learning, the AGF can perceive and interpret its environment in real time. This allows it to seamlessly navigate the warehouse, **identifying objects and obstacles** to execute tasks safely and efficiently without human intervention.

Optimized Automation

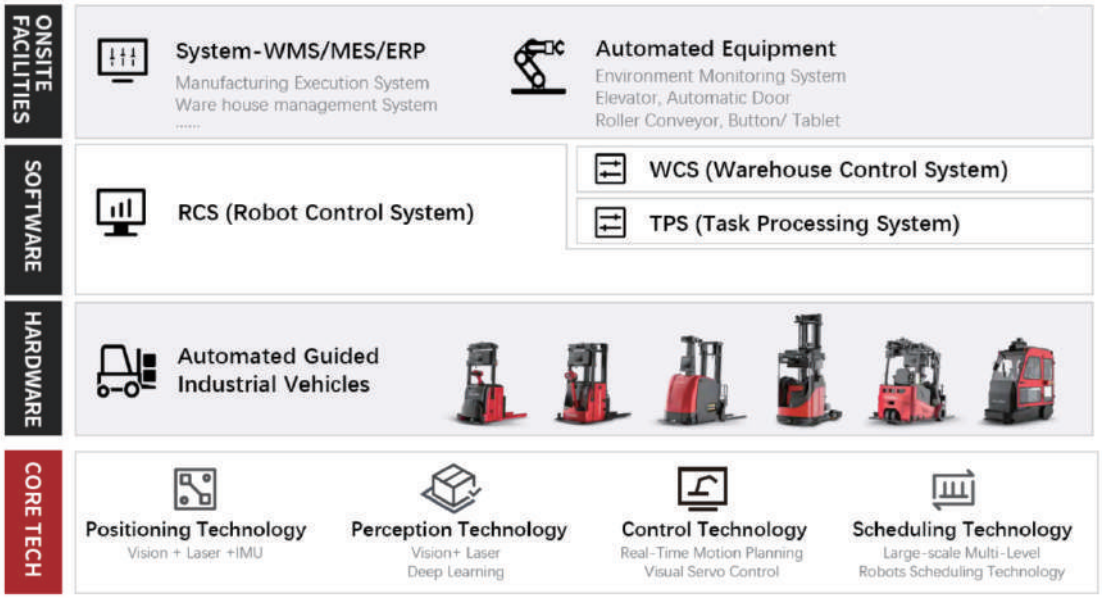
With autonomous navigation and precision control, the AGF automates the entire materials handling process from truck loading to put away. By leveraging automation, businesses can **reduce reliance on labor, improve productivity, minimize errors and lower costs**.

Seamless Integration

The AGF integrates into existing warehouse infrastructure with its comprehensive capabilities. It can handle various racking systems and scenarios right out of the box, working in tandem with staff and systems. This allows businesses to **incrementally automate without major changes**.

Lenovo Manufacturing Solutions

Solution Structure



Main advantages

Safety

Strictly compiled with international safety design standards, use dual system control and 5 level safety protection; Risk warning in real time feedback

Efficiency

Improve the logistics efficiency by about 30% without changing the existing processes

Digital management

Visual operation, synchronize information flow and material flow; cloud computing and data management

Use case-revolutionize warehouse logistic

In the labor-intensive 3PL industry, escalating labor costs have prompted a shift towards logistics automation. With its high-precision positioning and perception capabilities, the AGF is ideally suited for cantilever racks, drive-in racks, and other high-rise access scenarios. The implementation of sustainable warehouse logistics systems has resulted in a substantial improvement in operational efficiency, accompanied by significant reductions in operating costs. Warehouse automation has strengthened cargo handling and inbound/outbound efficiency, boosting warehouse operational efficiency by nearly 20%.

Features

- **Advanced AI and Deep Learning**

The AGF leverages cutting-edge artificial intelligence and deep learning algorithms to accurately perceive and interpret its surrounding environment in real time. This allows it to seamlessly navigate the warehouse, identify objects and obstacles, and execute tasks efficiently without human intervention.

- **Autonomous Navigation**

With an autonomous platform and precision motion control, the AGF can self-navigate across the warehouse floor. It can map its environment, plot optimal routes, and avoid collisions for safe, efficient travel between tasks.

- **Flexible Automation**

The AGF automates a wide range of warehouse tasks from truck loading and unloading to put away and order picking. Its comprehensive capabilities allow it to automate the entire materials handling process, tailored to your operations.

- **Seamless Integration**

Designed for simple integration, the AGF works seamlessly with your existing warehouse infrastructure, layouts, and workflows. It can handle various racking systems and scenarios right out of the box, complementing your staff and systems.

- **Real-Time Monitoring**

The AGF enables real-time fleet monitoring, providing updates on vehicle location, status, tasks, and other key metrics through 5G communication. This allows for greater oversight and optimization.

- **Smart Optimization**

With real-time data collection and analysis, the AGF continually optimizes its tasks and routes to boost efficiency over time. The system becomes smarter, and performance improves with use.

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

Smarter logistics. Smarter warehouse.

The AGF revolutionizes operations through cutting-edge AI and automation, seamlessly handling tasks to drive efficiency. This smart forklift is equipped to optimize your warehouse today and evolve with your needs tomorrow.

Maximize your warehouse efficiency today with the AGF's revolutionary AI and automation

Talk to your Lenovo Representative now for smarter logistics and a smarter warehouse.

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

Smarter technology for all

Lenovo