

Save Millions \$ for Warehouse Operations with 5G AR Indoor Navigation & Vision Picking Solutions



Executive Summary

The logistics and warehouse sector operates on razor-thin margins. Rising labor costs, high turnover, and growing demand for speed and accuracy are forcing operators to rethink their technology stack. Traditional Wi-Fi-based handheld devices, PDAs/pads, and UWB/BLE beacon systems are expensive to deploy, maintain, and upgrade.

MRTech's superior 5G AR solution is purpose-built for the logistics industry. It is highly cost-effective — delivering significant savings without breaking the bank — while ensuring industry-leading performance in accuracy, efficiency, and worker satisfaction.

1. Combat Rising Labor Costs & High Turnover

- Picking accounts for 50–70% of warehouse operating costs.
- Turnover rates in logistics often exceed 30–40% annually, driving up recruitment and training costs.
- MRPtech XR-assisted workflows reduce onboarding time by 60–70%, making new staff productive in days rather than weeks.

- Improved worker satisfaction and ergonomics → safer and less stressful work, lower turnover.

2. Reduce Costly Picking Errors

- Average picking error costs \$50–\$100 per incident (returns, re-shipping, lost customer goodwill).
- MRTech Vision Picking reduces errors by 60–90%, achieving accuracy rates of >99.5%.
- One global retail & e-commerce customer reported >\$5M annual savings from error reduction.

3. Increase Productivity with AR Indoor Routing

- Workers spend significant time searching for items; routing optimization improves efficiency by 15–25%.
- Real-time AR indoor navigation (QR/marker-based or SLAM) reduces walking time by 20–30% per shift.
- With 5G low-latency connectivity, inventory and routing updates are instant, essential in high-turnover environments.

4. Eliminating Infrastructure Costs

- No Wi-Fi hardware required → millions saved in deployment and maintenance.
- No UWB/BLE beacons needed → upfront CAPEX reduced by 30–40%.
- Legacy systems have recurring costs:
 - Hardware refresh cycles (every 3–5 years)
 - PDA/pad refresh, battery replacement, and maintenance
 - Beacon battery replacement and recalibration
 - Annual IT maintenance contracts
- MRTech 5G AR reduces future spend:
 - Every warehouse expansion or reconfiguration avoids extra APs or beacons.
 - Over a 5-year horizon, TCO is 30–40% lower than Wi-Fi/handheld/PDA systems.
 - Even for existing operations, MRTech helps avoid the next big Wi-Fi/Beacon/PDA expense while starting to cut OPEX immediately.

5. Cost Example: 50,000 m² Warehouse

Cost Category / Benefits	Legacy Wi-Fi/BLE + PDA/Pad	5G AR Glasses (\$1k–\$3k/unit)
Initial Hardware	\$150,000 (Wi-Fi/BLE) + \$150,000 (PDA/pads for staff) → \$300,000	\$100,000 – \$300,000
Annual Maintenance	\$25,000/year (Wi-Fi & PDA support/refresh, BLE maintenance)	\$0
5-Year Hardware Refresh	\$150,000 (Wi-Fi)	\$0
5-Year Total TCO	\$450,000	\$100,000 – \$300,000
Total Savings vs Legacy	—	\$150,000 – \$350,000
Improve of operations 60–90% error reduction (annually depending on throughput)	—	\$1–5M+
Productivity gains 20–30% → faster throughput, more revenue per shift		\$2–3M+

Highlights: - Using MRTech 5G AR glasses (\$1k–\$3k/unit), a 50,000 m² warehouse can save **\$150k–\$350k** in infrastructure TCO over 5 years, compared to legacy Wi-Fi + PDA/pad systems. - Operational improvements (error reduction, productivity gains, hardware efficiency) deliver multi-million-dollar impact annually, depending on throughput and scale.

6. Proven Results with Global Industry Leaders

One of the Global logistics providers deploying MRTech 5G AR solutions report: - 30–40% hardware TCO reduction vs legacy handhelds/PDA systems - Millions in direct annual savings from fewer errors and faster operations - Safer, less stressful work → lower turnover, improved employee satisfaction, reduced training and also onboard effectiveness.

Why MRTech

MRTech's 5G AR solution is tailored for the logistics industry:

- Super cost-effective — maximizes ROI, minimizes upfront and ongoing costs
- Tailored for warehouse operations — solving picking, routing, and training pain points
- Super fast POC and deployment as no need any other hardware except 5G AR Glasses
- Modulized approach - Fits different warehouse scales and budgets

Conclusion

MRTech 5G AR glasses empower warehouse operators to: - Slash infrastructure and hardware costs - Reduce picking errors dramatically - Boost productivity and throughput - Improve worker satisfaction and retention

Total savings can reach hundreds of thousands in TCO and millions in operational gains, making MRTech 5G AR not just a technology upgrade — but a strategic advantage for high-performance logistics operations.

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