CASE STUDY

Agilent Technologies
Distribution Center Operations
Assessment



Agilent Technologies, headquartered in Santa Clara, California, is a global leader in life sciences, diagnostics, and applied chemical markets. The company provides advanced instruments, software, services, and consumables to laboratories worldwide.

Project Background

Agilent engaged our team to assess operations at two key distribution centers in Memphis, TN, and Cedar Creek, TX. The goal was to evaluate current performance, identify inefficiencies, and recommend improvements in three core areas: Design, Operations, and Technology.

Assessment and Focus Area

1. **Design – Distribution Center Evaluation**
   - Analyzed capacity and space utilization.
   - Evaluated inventory flow for efficiency.
   - Assessed Material Handling Equipment (MHE) and automation levels.
2. **Operations – Process Optimization**
   - Reviewed end-to-end processes: receiving, put-away, storage, inventory control, replenishment, order fulfillment, quality inspection, and shipping.
   - Conducted a staffing analysis to optimize labor efficiency.
   - Evaluated warehouse process flow using KPIs.
   - Assessed inventory management, including slotting strategies.
   - Measured adoption of continuous improvement practices.
   - Benchmarked operations against industry best practices.
3. **Technology – WMS & Systems Utilization**
   - Evaluated Warehouse Management System (WMS) capabilities.
   - Assessed alignment with operational needs and best practices.

Project Scope

The assessment included tactical and strategic reviews to optimize operations through process improvements, system enhancements, and facility redesigns.

Project Deliverables

Our team provided a comprehensive Findings and Recommendations Report, including:

- **Prioritized Recommendations:**
  - Immediate (0–3 months): Low-cost, high-impact changes.
  - Mid-term (3–9 months): Moderate-cost process enhancements.
  - Long-term (9+ months): Strategic, high-investment initiatives.
- **Capital Planning Support:**
  - Estimated costs for each recommendation.
  - Detailed investment options with ROI projections.
- **Implementation Roadmap:**
  - High-level plan with timelines, cost estimates, and milestones.
- **Automation Strategy:**
  - High-level MHE automation plan to boost throughput and reduce costs.

Results and Impact

The assessment provided actionable insights, enabling Agilent to improve efficiency, reduce costs, and enhance scalability. Key outcomes included:

- **Operational Efficiency:** Process improvements, including layout adjustments and optimized put-away, reduced travel time by 15–20% and resolved bottlenecks in order fulfillment and shipping.
- **Space Utilization:** Racking reconfiguration and slotting optimization increased storage capacity by up to 25% without expansion.
- **Strategic Planning:** A tiered roadmap with cost-benefit analyses guided investments in automation, WMS upgrades, and equipment.
- **Technology Optimization:** Leveraging underutilized WMS features improved workflows, data visibility, and labor productivity.
- **Best Practice Alignment:** Benchmarking aligned operations with industry leaders, supporting continuous improvement.

Conclusion

This engagement enabled Agilent to optimize distribution center performance, lower operational costs, and build a more agile, scalable logistics infrastructure to better serve internal and external customers.

