
Lean Logistics Flow Design: Waste Removal and Delivery Reliability Training Course

5 – 9 July 2027
Cape town





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Programme Summary

Lean Logistics Flow Design, covering waste removal and delivery reliability, is the subject of this five-day training course for logistics, distribution and supply chain managers at managerial level, ending in a lean logistics improvement plan for one flow. Many networks pay for waiting, double handling and missed deliveries without measuring them. The programme moves from principles of lean flow, through diagnosis of waste, to design of pull and delivery controls, then to application on a live flow. Mars Training Centre UK delivers this Lean Logistics Flow Design programme for logistics leaders.

The Business Case

Logistics cost sits largely in activity customers never see: trucks waiting at gates, pallets moved twice, and orders that arrive late or short. Managers who see these losses on one map can remove them in order of effect and hold the gain with simple controls.

- Logistics Cost: Falls as waiting, double handling and surplus stock are removed from the flow.
- Delivery Reliability: Rises as pull rules and standard work reduce late and short orders.
- Cycle Time: Shortens as dwell time between steps is mapped and cut.

Principles and Evidence Base

- Lean thinking and the eight wastes: They frame the diagnosis of transport, inventory, motion, waiting and defects in Sessions 1 and 2.
- Value stream mapping: It structures the current-state and future-state maps used in Sessions 2 and 3.
- SCOR process model from ASCM: It provides the common process language for mapping plan, source, deliver and return activity.
- Lean Six Sigma DMAIC: It shapes the improvement cycle planned in Session 4.

Intended Participants

- Managers who run transport, warehousing or distribution operations and own their cost and service results.
- Supply chain planners who set replenishment rules and stock levels across sites.
- Operations leaders who sponsor improvement projects across several teams.
- Procurement and carrier managers who agree delivery terms with suppliers and haulage partners.

The programme serves manufacturers, retailers, distributors and logistics service providers, and suits mixed groups from several organisations.



Learning Outcomes

1. Participants will be able to classify logistics activity into value-adding and wasteful steps using the eight wastes.
2. Participants will be able to construct a current-state value stream map for one logistics flow.
3. Participants will be able to diagnose the root causes of late, short and damaged deliveries.
4. Participants will be able to prioritise waste by its effect on cost and service.
5. Participants will be able to design pull replenishment and standard work for one flow.
6. Participants will be able to justify an improvement plan with OTIF and cycle time measures.

Programme Structure

Day 1: Lean Logistics Flow Design Principles

What does lean mean for a flow of goods, and where does value appear?

- Eight Wastes Classification TIMWOODS
- Value and Customer Demand Definition
- Flow, Pull and Takt Time Principles
- Perfect Order and OTIF Measures
- Logistics Flow Selection Matrix

Day 2: Diagnosing Waste in Transport, Storage and Handling

Where do time, stock and movement leak out of the flow today?

- Value Stream Mapping Walk-Through
- Waiting and Dwell Time Log Analysis
- Excess Stock and Double Handling Audit
- Late and Short Delivery Root-Cause Tree
- Waste Priority Ranking by Cost and Service Effect

Day 3: Designing Pull, Flow and Reliability Controls

Which controls remove the waste and keep deliveries on time and in full?

- Kanban Pull Replenishment Rules
- Milk Run and Cross-Docking Layouts
- Standard Work and 5S Station Sheets
- SCOR Process Model Mapping
- Future-State Value Stream Map



Day 4: Embedding Improvement and Performance Governance

How is the new flow held in place after the first gain?

- Daily Management Board Design
- A3 Problem-Solving Report
- DMAIC Improvement Cycle Plan
- Supplier and Carrier Delivery Scorecard
- Kaizen Event Planning Template

Day 5: Applying Lean Logistics Flow Design to One Flow

Is the improvement plan ready for a logistics team to run?

- Applying the Session 2 Value Stream Map to a Live Flow
- Testing the Session 3 Pull Rules on Sample Orders
- Checking the Session 4 Scorecard Against OTIF Targets
- Rehearsing the Sponsor Review Conversation
- Completing the Lean Logistics Improvement Plan

Methodology

The programme uses a structured exercise method built on anonymised flow data, delivery records and site layouts. Participants map a flow in small teams, test pull rules on sample orders and challenge each other's logic in short peer reviews.

- Suggested activity: Mapping a goods-in to dispatch flow and marking every wait.
- Suggested activity: Sizing a kanban loop for a fast-moving item using sample demand.
- Suggested activity: Tracing ten late orders back to their root cause.

Capstone Output

Each participant completes a lean logistics improvement plan for one flow. It holds a current-state map, a ranked waste list, a future-state map, pull and standard work rules, and a delivery scorecard with OTIF measures. The plan is used to brief a sponsor and start the first improvement cycle.

Frequently Asked Questions

Is lean logistics flow design suitable for managers new to lean?

Yes. Lean logistics flow design starts from the eight wastes and simple mapping, and assumes responsibility for a transport, storage or distribution flow rather than prior lean training.



Which models does lean logistics flow design rest on?

Lean logistics flow design rests on lean thinking and the eight wastes, value stream mapping, kanban pull replenishment, the SCOR model from ASCM and Lean Six Sigma DMAIC.

How is the plan from lean logistics flow design used at work?

You use the lean logistics improvement plan to brief a sponsor, start the first improvement cycle and track OTIF and cycle time in daily team reviews.

How does lean logistics flow design differ from a programme on supply chain strategy?

Lean logistics flow design centres on removing waste from one operating flow, while a supply chain strategy programme centres on network choices and long-term positioning.