

# Mopex Consulting

## LEAN Framework



Operational Excellence, made measurable

**Mopex Consulting Ltd**

Operational Excellence, made measurable

**Mopex LEAN Framework**



**Deliver measurable operational improvements by applying LEAN principles to reduce waste, improve flow, and enhance customer value.**

# Pre-Project Assessments

## LEAN Maturity Level Scoring

LEAN Maturity Level Scoring

Excel Tool Structure

LEAN Dimension	Score (1-5)	Notes / Evidence	Recommended Action
Value Definition	3		
Value Stream Mapping	2		
Flow Efficiency	2		
Pull Systems	4		
Waste Elimination	3		
Standard Work	3		
Continuous Improvement	2		

Calculated Outputs

Metric	Outcome
LEAN Maturity Index (%)	54%
Avg. Maturity Score	3
LEAN Maturity Level	Defined

### Maturity Scores

### LEAN Dimension

## Mopex LEAN Maturity Map (As-Is)

Mopex LEAN Maturity Map (As-Is)

Maturity Summary

Domain	Score (1-5)	RAG Rating	Notes
Value Stream Clarity	3	Fair	Mapping incomplete for support functions
Flow Efficiency	2	Poor	Bottlenecks in handoffs and approvals
Waste Elimination	2	Poor	No formal waste log or tracking
Visual Management	4	Good	Tier boards active in ops teams
Standard Work	3	Fair	SOPs exist but not embedded
Problem Solving	3	Fair	5 Whys used inconsistently
Kaizen Culture	2	Poor	Low staff-led improvement activity

Maturity Drivers

Domain	Gap Driver	Validation Method	Status	Linked Tool
Value Stream Clarity	No end-to-end maps	VSM review	Confirmed	VSM Template
Flow Efficiency	Excess handoffs	Workflow audit	Confirmed	Process Map
Waste Elimination	No waste tracking	Gemba walk	Pending	Waste Diagnostic
Visual Management	Inconsistent visuals	Site visit	Confirmed	Tier Board Pack
				SOP Tracker
				RCA Toolkit
				Kaizen Tracker

## LEAN Maturity Results and 90 Day Roadmap

LEAN Maturity Results and 90 Day Roadmap

Maturity Score Results

Dimension	Current Level	Target Level	Gap	Priority	Owner	Notes
Value Definition	3	5	2	Medium	Mopex Lead	Governance dashboard needed
Value Stream Mapping	2	4	2	High	Ops Lead	SPC rollout in progress
Flow Efficiency	2	4	2	High	Analyst	Predictive modelling roadmap
Pull Systems	4	5	1	Low	QA Lead	ISO 9001 embedded
Waste Elimination	3	5	2	Medium	Ops Lead	Toolkit standardisation
Standard Work	3	4	1	Medium	BI Lead	Power BI templates in dev
Continuous Improvement	2	4	2	High	Mopex Lead	Link to Benefits Tracker

90 Day Roadmap

Dimension	Score	Week 1-2	Week 3-4	Week 5-8	Target	Owner	Status	Notes
Value Stream Mapping	2	Conduct defect analysis	Launch CAPA training	Build SPC dashboard	Reduce defect rate by 25%	Ops Manager	<input checked="" type="checkbox"/>	
Flow Efficiency	2	Audit current tools	Train on dashboard use	Automate KPI tracking	Improve data accuracy by 30%	Digital Lead	<input type="checkbox"/>	
Continuous Improvement	2	Review risk assessments	Launch safety training	Set up H&S KPIs	Reduce incident rate by 20%		<input type="checkbox"/>	

## Mopex LEAN Project Framework

**Purpose:** Deliver measurable operational improvements by applying Lean principles to reduce waste, improve flow, and enhance customer value.

Use Cases	Service Description
Manufacturing and service process optimisation	<ul style="list-style-type: none"> <li>Phase 1: Project Intake &amp; Scoping</li> </ul>
Quality and compliance improvement	Purpose: Define the opportunity, scope, and success criteria.
Cost reduction and efficiency gains	<ul style="list-style-type: none"> <li>Phase 2: Current State Analysis</li> </ul>
Cross-functional workflow redesign	Purpose: Understand the process, identify waste, and validate pain points.
	<ul style="list-style-type: none"> <li>Phase 3: Root Cause Analysis</li> </ul>
	Purpose: Validate causes of inefficiency or defects.
	<ul style="list-style-type: none"> <li>Phase 4: Solution Design &amp; Kaizen Delivery</li> </ul>
	Purpose: Implement targeted improvements through rapid cycles.
	<ul style="list-style-type: none"> <li>Phase 5: Control &amp; Sustainment</li> </ul>
	Purpose: Lock in gains and prevent backsliding.

### Mopex LEAN Toolkit (Suggested Assets)

Asset	Format	Purpose
Project Charter Template	Word	Define scope and objectives
SIPOC & VSM Templates	Excel/Visio	Map current and future states
Waste Diagnostic Checklist	Excel	Identify and categorise waste
Root Cause Analysis Pack	Word/Excel	Analyse and prioritise causes
Kaizen Event Planner	Excel	Structure rapid improvement
Control Plan Template	Excel	Sustain gains and monitor KPIs
Benefits Tracker & ROI Model	Excel	Quantify impact and payback
Report-Out Slide Deck	PowerPoint	Communicate results to client

# LEAN Project Tracking Documents linked to Dashboard

## Mopex LEAN Project Charter

**Section 1: Project Definition**

Project Title	Reduce Rework in Assembly Line A
Sponsor	Client Ops Director
Project Lead	Mopex Consultant
Start Date	10/11/2025
Target Completion	12/12/2025

**Section 2: Problem Statement**

Assembly Line A has a rework rate of 12%, causing delays, increased costs, and reduced customer satisfaction.

**Section 3: SMART Goals**

Goal	Metric	Target
Reduce rework rate	FPY	≥ 95%
Improve lead time	Avg. cycle time	≤ 45 min
Increase throughput	Units/day	≥ 500

**Section 4: Stakeholder Map**

Role	Name	Influence	Engagement Plan
Sponsor	Ops Director	High	Weekly updates
QA Lead	Jane Smith	Medium	RCA workshops
Line Supervisor	Tom Lee	High	Daily huddles

**Section 5: Scope & Boundaries**

## Mopex Benefits Tracker & ROI Model

Domain	Forecasted Benefit (£)	Actual Benefit (£)	Owner	Status	Notes
Cost Avoidance	£36,000.00	£32,000.00	Ops Lead	In Progress	Linked to CI-001

Forecasted Benefit (£)	Implementation Cost (£)	Net ROI (£)	Payback Period (Months)	Strategic Fit	Owner	Notes
£36,000.00	£7,600.00	£28,400.00	2.5	5	Ops Lead	Linked to CI-001

### Mopex LEAN Project Overview

Client Name: Muffin & Co Bakery  
Project Name: Reduce Rework in Assembly Line A  
Project Duration: 10/11/2025 - 12/12/2025 (25 days)

**Benefits & ROI Summary**

Total Forecasted Benefit (£)	£36,000.00
Total Realised Benefit (£)	£32,000.00
Net ROI (£)	£28,400.00

**Project Status**

# of Tasks	25
Complete Tasks	1
In Progress	1
Tasks ON HOLD	1
Tasks Overdue	1
Not Started	21

**Project Status** (Gauge): 6% (0% to 100%)

**Status Legend:** Complete, In Progress, Not Started, On Hold, Overdue

**Metric Status:** 33% (At Risk, Off Track, On Track)


**Benefits £** (Bar Chart): Actual vs Forecasted

**Risks** (Bar Chart): 5 risks (Open, Mitigated)

**Project Timeline** (Gantt Chart): Shows project phases from 09/11 to 19/12.

Charter	Goal	Lead	Status	Progress %	Start	End	Count
Current State Analysis	Milestone		Not Started	0%	17/11/2025	17/11/2025	
Process Map	Goal	Delivery Lead	In Progress	50%	17/11/2025	17/11/2025	
Data Collection Plan	Goal	Compliance Lead	Not Started	0%	18/11/2025	18/11/2025	
Baseline Metrics	Goal	PM	Not Started	0%	19/11/2025	19/11/2025	
Waste Identification	Goal	Delivery Lead	Not Started	0%	20/11/2025	20/11/2025	
Control Charts	Goal	Compliance Lead	Not Started	0%	21/11/2025	21/11/2025	
Root Cause Analysis	Milestone		Not Started	0%	24/11/2025	24/11/2025	
Root Cause Analysis	Goal	Delivery Lead	Not Started	0%	24/11/2025	24/11/2025	
Value-Added Analysis	Goal	Compliance Lead	Not Started	0%	25/11/2025	25/11/2025	
Bottleneck Diagnosis	Goal	PM	Not Started	0%	26/11/2025	26/11/2025	
Cause & Effect Matrix	Goal	Delivery Lead	Not Started	0%	27/11/2025	27/11/2025	1
Hypothesis Testing	Goal	Compliance Lead	Not Started	0%	28/11/2025	28/11/2025	1

# LEAN A3 Project Reporting



## Mopex LEAN Project Report

### Client/Project Details

**Project Title:** Reduce Rework in Assembly Line A

**Client Name:** Muffin & Co Bakery

**Mopex Consultant Lead:** Mopex Consultant

**Date of Report:** 04/11/2025

**Version Control:** V.01

**Business Case & Strategic Fit:** Supports quality KPIs and audit readiness

**Summary of Benefits (£):** £36,000 annualised benefit

**Project Status (RAG):** Work In Progress


### Executive Summary

**Problem Statement:** Assembly Line A has a rework rate of 12%, causing delays, increased costs, and reduced customer satisfaction


**Key Stakeholders & Engagement**

Expert/Leaders/Practitioners	Role
Ops Director	Sponsor
Jane Smith	QA Lead
Tom Lee	Line S...

#### Lean Principles



#### Project Status



### 1. Project Intake & Scoping

#### VOC and CTQ Analysis


ID	Customer ID	Customer Category	Value of Customer (VOC)	Key Customer Issues(S)	Critical To Customer (CTQ)
#	Who is the customer?	Type of customer?	What did the customer say?	What does the customer need?	What resulting action is required?
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

### 2. Current State Analysis

#### VSM, Metrics, Waste and Variation


PROCESS TITLE:	SUPPLIERS	INPUT	PROCESS	OUTPUT	CUSTOMER
Resource Provider	Process	High level process flow	From the process	Materials are output from the process	
Grocery Store	Meat	Process 1	Process 2	Donner cooked	Family
Veg Stand	Vegetables	Process 3	Process 4	Family fed	
Cook	Skills	Process 5	Process 6		
		Process 7	Process 8		
		Process 9	Process 10		

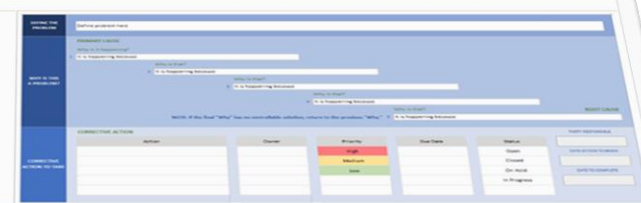
**PROCESS Map**



### 3. Root Cause Analysis

#### Root Cause, Value Add, Cause & Effect







### 4. Solution Design and Kaizen Delivery


#### Brainstorming, Kaizen Events, Future State Mapping

#### HEIJUNKA




#### JIT (Just in Time)







### 5. Governance and Reporting

#### Control Plans, SOP's, Visual Management







VSM Step	VSM Calculator	Comments
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

# Some LEAN Project Tools

### Mopex Waste Diagnostic

Client & Project Info

Field	Description
Company Name	Muffin & Co Bakery
Director / Industry	Manufacturing
Site / Area Assessed	Muffin Making Area
Assessor Name	Peter
Date of Assessment	03/11/2025
Framework Linkage	LEAN Framework

Waste Scoring Matrix

Waste Category	Definition
Transport	Unnecessary movement
Inventory	Excess stock or digital
Motion	Inefficient movement of
Waiting	Delays, bottlenecks, id
Overproduction	Producing more than r
Overprocessing	Doing more than requ
Defects	Errors, rework, non-co
Skills Misuse	Underutilised talent

Waste Prioritisation Matrix

Waste Type	Frequency
Motion	High
Inventory	Medium
Waiting	Low

### Mopex Waste Diagnostic

### 5S Audit

5S Audit Sheet

Date	Audit Area	Assembly Area	Score	Rating	Description
25/10/2025	Work Station		0	POOR	Activities not conducted at all
Month	5S Auditor	Joe Blogg	1	MARGINAL	Activities implemented between 0-30%
October	5S Leader	Tony Wynne	2	AVERAGE	Activities implemented between 31-60%
Audit Cycle	Monthly		3	GOOD	Activities conducted in a systematic way but could improve, 61-90%
			4	BETTER	Activities implemented and used in systematic way, 91-99%
			5	BEST	Activities fully implemented and used in systematic way 100%

5S Audit Summary

Category	Score	Average	%	Status
WASTE	12	2	48%	AVERAGE
STRAIGHTEN	19	3	63%	GOOD
SHINE	22	3	63%	GOOD
STANDARDISE	13	3	52%	GOOD
SUSTAIN	12	2	40%	AVERAGE
Total Score	78			
Audit Result	53%			

5S Summary

5S Audit Category

Category	Evaluation Criteria
WASTE	POOR
STRAIGHTEN	GOOD
SHINE	GOOD
STANDARDISE	GOOD
SUSTAIN	AVERAGE

### Current State Map

Current State Process Map

Step #	Process Step	Owner	CTQ Link	Metric	Current Value	Notes
1	Receive order	Sales Admin	Delivery	Order entry accuracy	92%	Manual entry, prone to typos
2	Print label	Ops Lead	Quality	Label misalignment rate	3%	Sensor cleaning inconsistent
3	Apply label	Operator	Quality	FPY	89%	No visual guides
4	Seal pack	Operator	Quality	Seal failure rate	2%	Old sealers, inconsistent heat
5	QA check	QA Lead	Flexibility	Rework rate	6%	Manual logging, no alerts

### SPC Chart Current State

Process Name: Cookie Process

Batch: 1

Machine/Operator: Pete

Date: 18/08/2025

Month: August, Year: 2025

Input Section

Parameter	mm
Size	100.0
Target (Nominal)	10.0
SL	9.5
JSL	10.5
Mean(μ)	10.23
Std Dev (σ)	0.4

Calculating 3 Sigma

Value	
UCL	10
USL	0.19
LSL	9.44
LCL	9.1

SPC Data

### Root Cause Matrix

### Root Cause Matrix

Issue	Suspected Cause	RCA Method
Label misalignment	Sensor misreads	5 Whys
Seal failure	Material inconsistency	Fishbone
QA delays	No real-time alerts	Interviews
High scrap rate	Rushed setups	Pareto + 5 Why
Barcode errors	Scanner miscalibration	Fishbone

RCA Dashboard

KPI Panel: # causes analysed, % confirmed, top 3 unresolved

Bar Chart: Causes by RCA method

Heatmap: Confirmation status by issue

Slicers: Filter by issue, RCA method, validation status, own

### Mopex Kaizen Event Structure

Day	Planned Date	Activities	Outputs
Pre-event		Scoping, data prep, team selection	Charter, baseline metrics, logistics
Day 1		Orientation, process walk, current state mapping	SIPOC, VSM, pain points, data validation
Day 2		Root cause analysis, solution brainstorming	Fishbone, 5 Whys, prioritised ideas
Day 3		Solution design, trials, standard work	Future state map, SOPs, control plan
Day 4		Implementation, training, dashboard setup	Action tracker, training records
Day 5		Report-out, benefits forecast, sustain plan	Presentation, ROI model, sustain checks

## Mopex LEAN Framework



## Mopex LEAN Project Deliverables

Mopex LEAN Project Framework			
Phase	Element	Description	Check
<i>Project Intake and Scoping</i>			
Phase 1	Problem Statement	"High defect rate in final assembly"	<input type="checkbox"/>
	Project Scope	Boundaries, exclusions, stakeholders	<input type="checkbox"/>
	Voice of Customer	CTQs, expectations, pain points	<input type="checkbox"/>
	Business Case	ROI, strategic alignment, urgency	<input type="checkbox"/>
	Charter	Roles, timeline, success criteria	<input type="checkbox"/>
<i>Current State Analysis</i>			
Phase 2	Process Map	SIPOC / Swimlane / Value Stream	<input type="checkbox"/>
	Data Collection Plan	Metrics, sources, frequency	<input type="checkbox"/>
	Baseline Metrics	Cycle time, defect rate, WIP, lead time	<input type="checkbox"/>
	Waste Identification	TIMWOOD categories (7 wastes)	<input type="checkbox"/>
	Control Charts	Variation and stability analysis	<input type="checkbox"/>
<i>Root Cause Analysis</i>			
Phase 3	Root Cause Analysis	Fishbone, 5 Whys, Pareto	<input type="checkbox"/>
	Value-Added Analysis	VA/NVA breakdown	<input type="checkbox"/>
	Bottleneck Diagnosis	Flow constraints	<input type="checkbox"/>
	Cause & Effect Matrix	Prioritise drivers of waste	<input type="checkbox"/>
	Hypothesis Testing	Validate assumptions	<input type="checkbox"/>
<i>Solution Design and Kaizen Delivery</i>			
Phase 4	Solution Generation	Brainstorming, benchmarking	<input type="checkbox"/>
	Kaizen Events	Rapid improvement workshops	<input type="checkbox"/>
	Future State Mapping	Redesigned process flow	<input type="checkbox"/>
	Pilot Implementation	Test changes in controlled setting	<input type="checkbox"/>
	Risk Assessment	FMEA / mitigation planning	<input type="checkbox"/>
<i>Governance and Reporting</i>			
Phase 5	Control Plan	Monitoring, response triggers	<input type="checkbox"/>
	SOP Updates	Standardisation of new process	<input type="checkbox"/>
	Visual Management	Dashboards, boards, trackers	<input type="checkbox"/>
	Audit Schedule	Sustainment checks	<input type="checkbox"/>
	Benefits Realisation	ROI, savings, performance uplift	<input type="checkbox"/>



# LEAN Project Pricing

Mopex LEAN Project Framework				
Fixed Fee Model	Deiverables	Duration (W)	Tier Range	Price Range
OpEx Lite	Diagnostic + Roadmap	2–4	Bronze	£2,280–£3,800
OpEx Core	LEAN Principles to reduce waste	6–8	Silver	£7,600–£11,400
OpEx Plus	OpEx Core + Training + Dashboard	6–12	Gold	£11,400–£19,000
OpEx Enterprise (Retention)	Monthly LEAN CI Governance	TBC	TBC	TBC
Milestone Model	Deliverables	Timing	% of Total Fee	
Kickoff & Current State	Value stream map, waste audit, stakeholder alignment	Week 1–2	20%	
Future State Design	Lean redesign, flow improvements, 5S plan	Week 3–4	25%	
Pilot & Kaizen	Rapid improvement events, pilot results	Week 5–6	25%	
Sustain & Scale	SOPs, control plan, training pack	Week 7–8	20%	
Bonus ROI Pack	ROI forecast, Lean dashboard, comms assets	Optional	10%	
Month Model	Deliverables	Timing	Fee (£)	
Month 1	Waste diagnostic, process walk, Kaizen event, updated SOPs	1	£5,000.00	
Month 2	Final waste map, control actions, training handover	0.5	£2,600.00	

**OpEx Core  
Package Example  
£7,600.00**

# Mopex ROI Forecast Model for LEAN Projects

**Mopex ROI Forecast Model for LEAN Projects** - it's designed to quantify the financial impact of waste elimination, process optimisation, and flow improvement under the Mopex LEAN Framework.

## 1. Cost Inputs

Category	Typical Range
Mopex Implementation Fees	£20,000–£50,000 (fixed or day rate)
Internal Resource Allocation	80–250 hours (client-side)
Tooling & Digital Assets	£3,000–£12,000 (Notion, Power BI, Mopex templates)
Kaizen Event Costs	£2,000–£8,000 (venue, facilitation, materials)
Change Management & Training	£2,000–£6,000

## 2. Value Drivers

Driver	Mopex Impact Range
Waste Elimination (TIMWOODS)	20–60% reduction in non-value-add activities
Cycle Time Reduction	15–35% faster process execution
Productivity Uplift	10–30% increase in throughput
Defect & Rework Reduction	25–50% fewer errors and rework incidents
Cost Avoidance (Labour & Materials)	£15k–£150k saved annually
Capacity Release	Equivalent to 0.5–2 FTEs freed for redeployment

## 3. Example ROI Scenarios

Scenario	Cost (£)	Value (£)	ROI (%)
SME, LEAN pilot in production cell	£30,000	£110,000	267%
Mid-size, multi-team Kaizen rollout	£50,000	£190,000	280%
Enterprise, LEAN + DMAIC integration	£70,000	£280,000	300%

**Mopex LEAN Framework**



**LEAN Project Tools Available**



# LEAN Project/Stand-alone Tool Kits





**Mopex 5S Audit Sheet**

**5S Audit Sheet**

Date	Audit Area	Assembly Area	Score	Rating	Description
20/03/2024	Work Station		0	POOR	Activities not conducted at all
Month	5S Auditor	Joe Blogg	1	MARGINAL	Activities implemented between 0-30%
March	5S Leader	Tony Wynne	2	AVERAGE	Activities implemented between 31-60%
Audit Cycle	Monthly		3	GOOD	Activities conducted in a systematic way but could improve, 61-90%
			4	BETTER	Activities implemented and used in systematic way, 91-99%
			5	BEST	Activities fully implemented and used in systematic way 100%

**Action Tracker**

**5S Audit Summary**

Category	Score	Average	%	Status
<b>SORT</b>	11	2	44%	AVERAGE
<b>STRAIGHTEN</b>	23	4	77%	BETTER
<b>SHINE</b>	20	3	57%	GOOD
<b>STANDARDISE</b>	8	2	32%	AVERAGE
<b>SUSTAIN</b>	13	2	43%	AVERAGE
<b>Total Score</b>	<b>75</b>			
<b>Audit Result</b>	<b>51%</b>			

**5S Audit Category**

Category	Description	Evaluation
<b>SORT</b>	Only and all the required materials, WIP and stock present in the area	
	Only and all the required tools and equipment are present in the work area	
	Only and all the required paperwork is present in the work area (s...	

**5S Summary**

