# Mopex Consulting

## DMAIC Framework

Operational Excellence, made measurable

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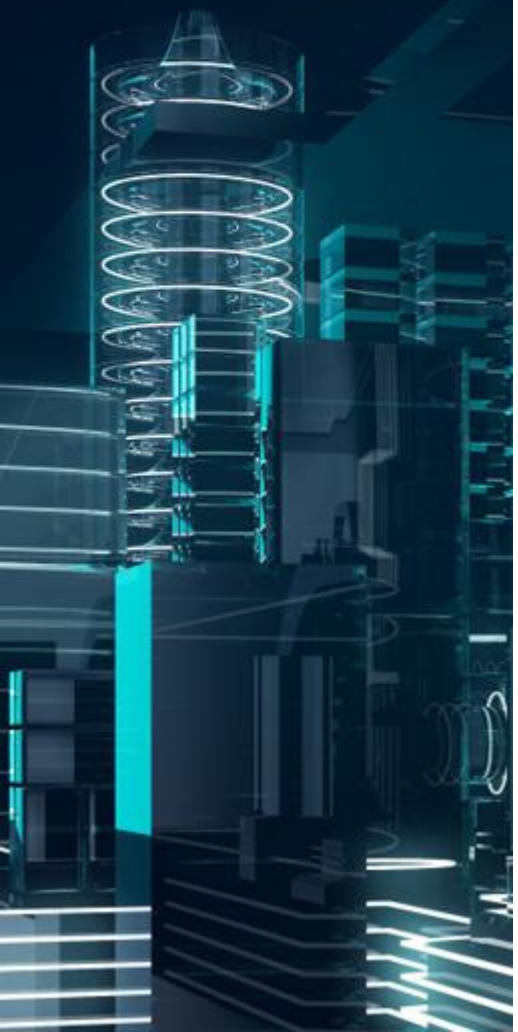
## Mopex DMAIC Framework




**Drive structured problem-solving and performance uplift using the DMAIC methodology—Define, Measure, Analyse, Improve, Control.**

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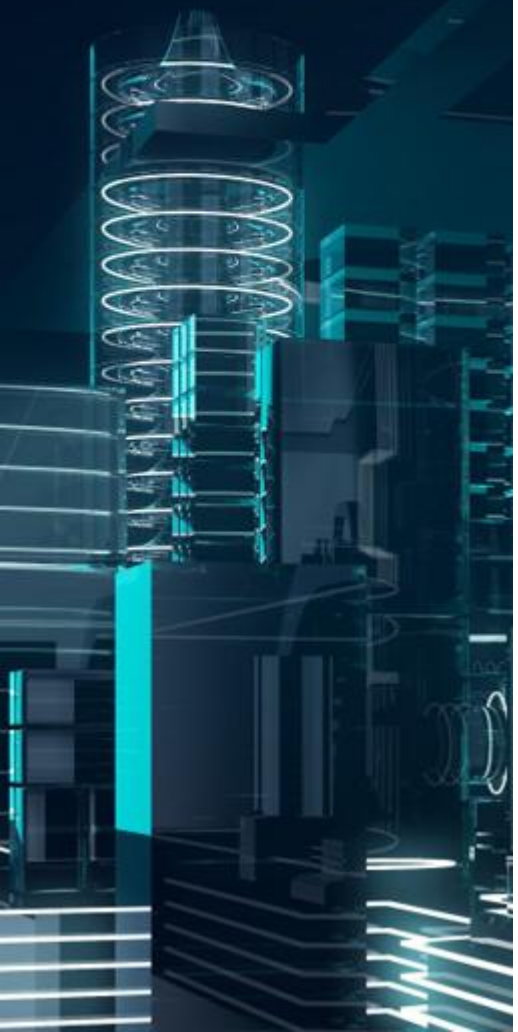
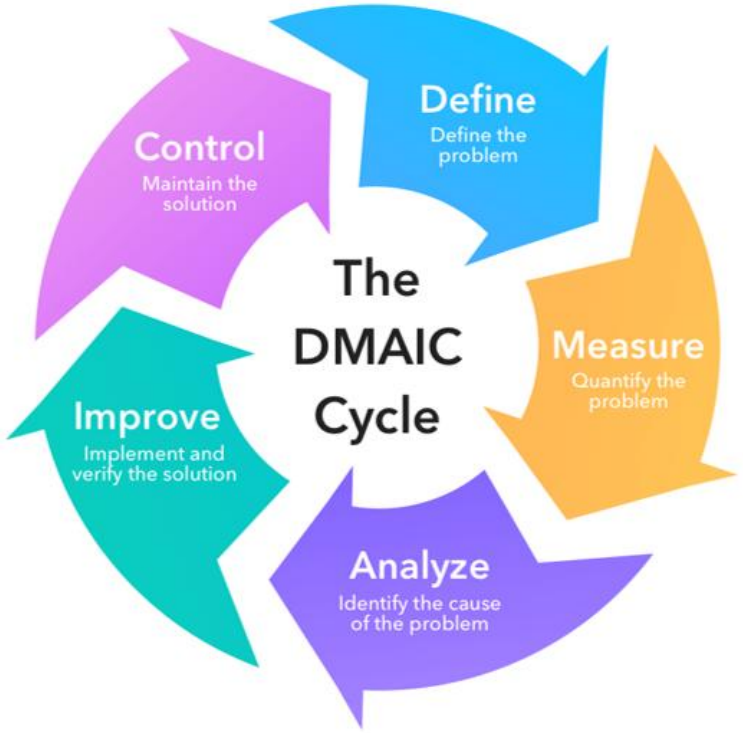
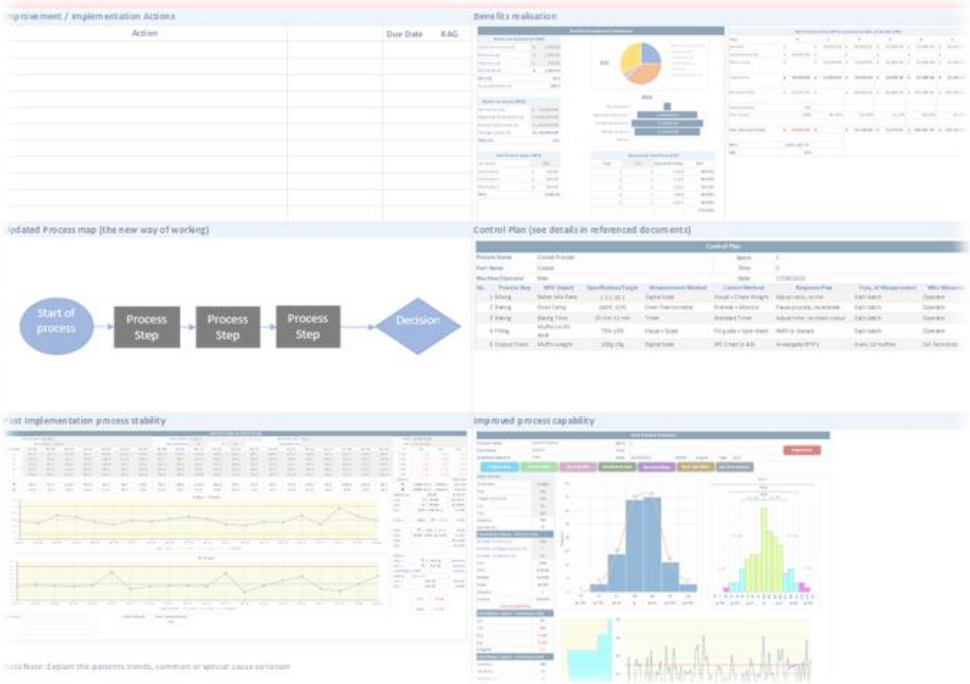
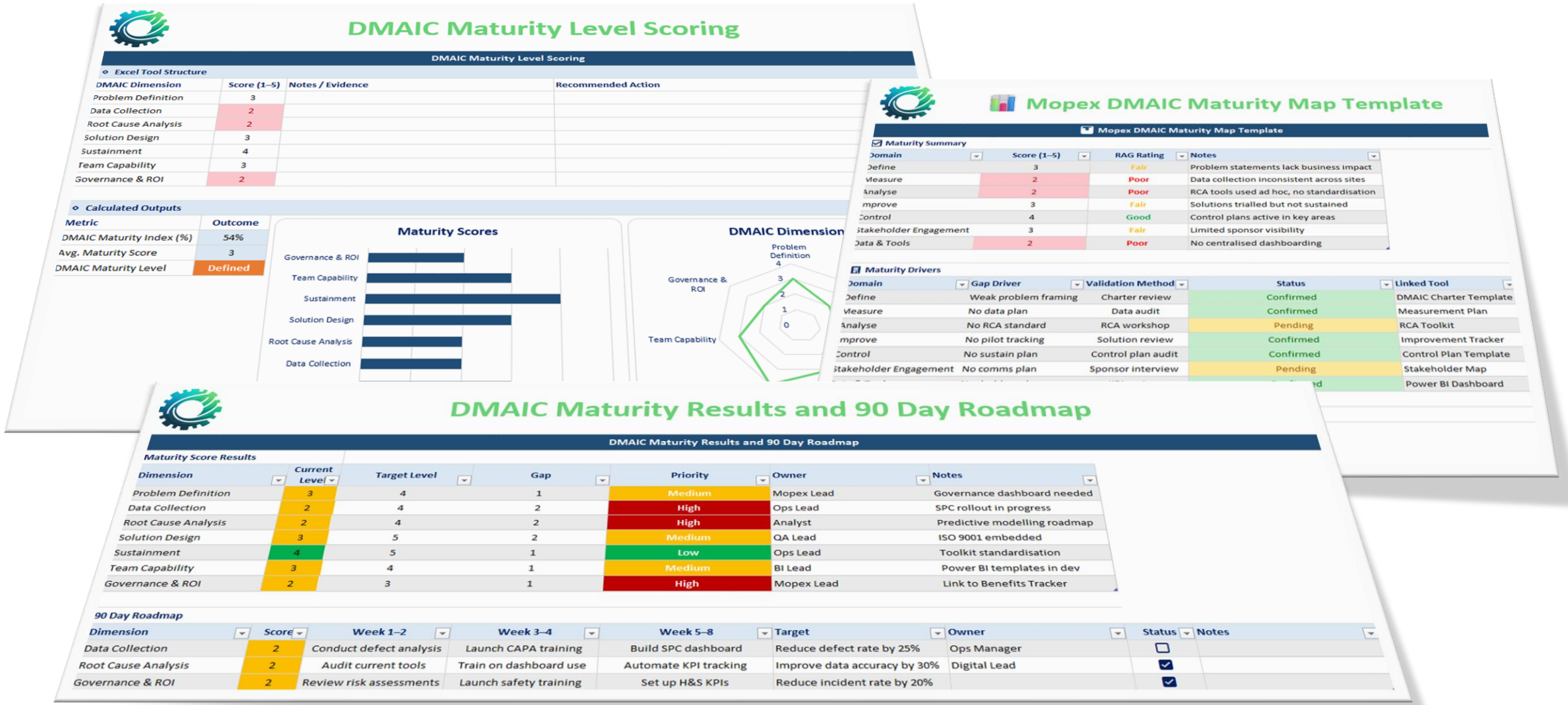




# Pre-Project Assessments



## DMAIC Maturity Level Scoring

DMAIC Maturity Level Scoring

Excel Tool Structure

| DMAIC Dimension | Score (1–5) | Notes / Evidence | Recommended Action |
|---|---|---|---|
| Problem Definition | 3 | | |
| Data Collection | 2 | | |
| Root Cause Analysis | 2 | | |
| Solution Design | 3 | | |
| Sustainment | 4 | | |
| Team Capability | 3 | | |
| Governance & ROI | 2 | | |

Calculated Outputs

| Metric | Outcome |
|---|---|
| DMAIC Maturity Index (%) | 54% |
| Avg. Maturity Score | 3 |
| DMAIC Maturity Level | Defined |

Maturity Scores



DMAIC Dimension



## Mopex DMAIC Maturity Map Template

Mopex DMAIC Maturity Map Template

Maturity Summary

| Domain | Score (1–5) | RAG Rating | Notes |
|---|---|---|---|
| Define | 3 | Fair | Problem statements lack business impact |
| Measure | 2 | Poor | Data collection inconsistent across sites |
| Analyse | 2 | Poor | RCA tools used ad hoc, no standardisation |
| Improve | 3 | Fair | Solutions trialled but not sustained |
| Control | 4 | Good | Control plans active in key areas |
| Stakeholder Engagement | 3 | Fair | Limited sponsor visibility |
| Data & Tools | 2 | Poor | No centralised dashboarding |

Maturity Drivers

| Domain | Gap Driver | Validation Method | Status | Linked Tool |
|---|---|---|---|---|
| Define | Weak problem framing | Charter review | Confirmed | DMAIC Charter Template |
| Measure | No data plan | Data audit | Confirmed | Measurement Plan |
| Analyse | No RCA standard | RCA workshop | Pending | RCA Toolkit |
| Improve | No pilot tracking | Solution review | Confirmed | Improvement Tracker |
| Control | No sustain plan | Control plan audit | Confirmed | Control Plan Template |
| Stakeholder Engagement | No comms plan | Sponsor interview | Pending | Stakeholder Map |
| | | | | Power BI Dashboard |

## DMAIC Maturity Results and 90 Day Roadmap

DMAIC Maturity Results and 90 Day Roadmap

Maturity Score Results

| Dimension | Current Level | Target Level | Gap | Priority | Owner | Notes |
|---|---|---|---|---|---|---|
| Problem Definition | 3 | 4 | 1 | Medium | Mopex Lead | Governance dashboard needed |
| Data Collection | 2 | 4 | 2 | High | Ops Lead | SPC rollout in progress |
| Root Cause Analysis | 2 | 4 | 2 | High | Analyst | Predictive modelling roadmap |
| Solution Design | 3 | 5 | 2 | Medium | QA Lead | ISO 9001 embedded |
| Sustainment | 4 | 5 | 1 | Low | Ops Lead | Toolkit standardisation |
| Team Capability | 3 | 4 | 1 | Medium | BI Lead | Power BI templates in dev |
| Governance & ROI | 2 | 3 | 1 | 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 |
|---|---|---|---|---|---|---|---|---|
| Data Collection | 2 | Conduct defect analysis | Launch CAPA training | Build SPC dashboard | Reduce defect rate by 25% | Ops Manager | ☐ | |
| Root Cause Analysis | 2 | Audit current tools | Train on dashboard use | Automate KPI tracking | Improve data accuracy by 30% | Digital Lead | ☑ | |
| Governance & ROI | 2 | Review risk assessments | Launch safety training | Set up H&S KPIs | Reduce incident rate by 20% | | ☑ | |

## Mopex DMAIC Project Framework

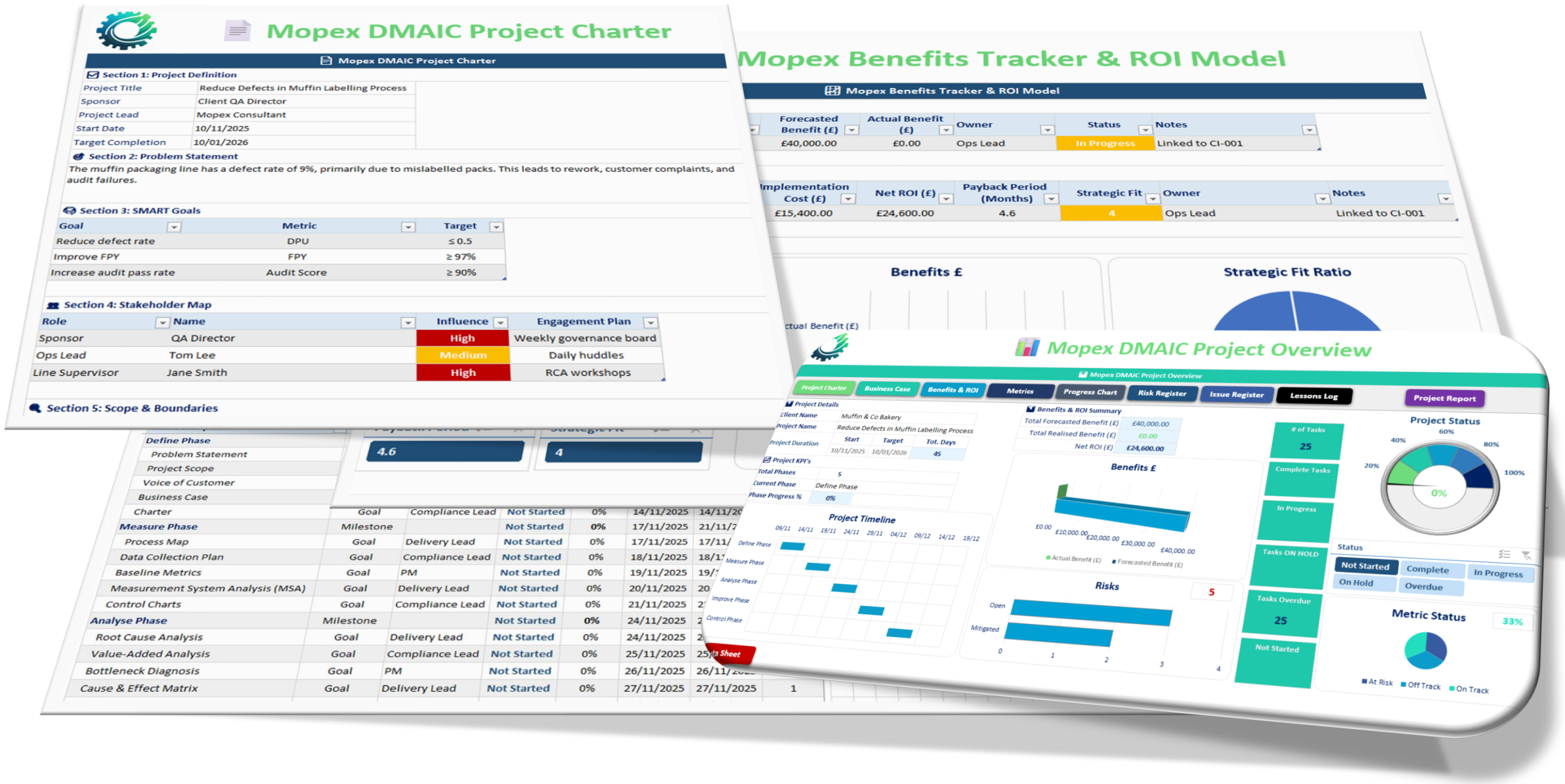
**Purpose:** Drive structured problem-solving and performance uplift using the DMAIC methodology—Define, Measure, Analyse, Improve, Control.

| Use Cases | Service Description |
|---|---|
| Defect reduction and quality improvement | ◇ **Phase 1. Define** |
| Process optimisation and variation control | Purpose: Frame the problem, scope, and success criteria. |
| Compliance and audit readiness | ◇ **Phase 2. Measure** |
| Cost reduction and performance uplift | Purpose: Quantify current performance and validate the issue. |
| Root cause analysis and solution design | ◇ **Phase 3. Analyse** |
| | Purpose: Identify and validate root causes. |
| | ◇ **Phase 4. Improve** |
| | Purpose: Design and implement targeted solutions. |
| | ◇ **Phase 5. Control** |
| | Purpose: Sustain gains and prevent backsliding. |

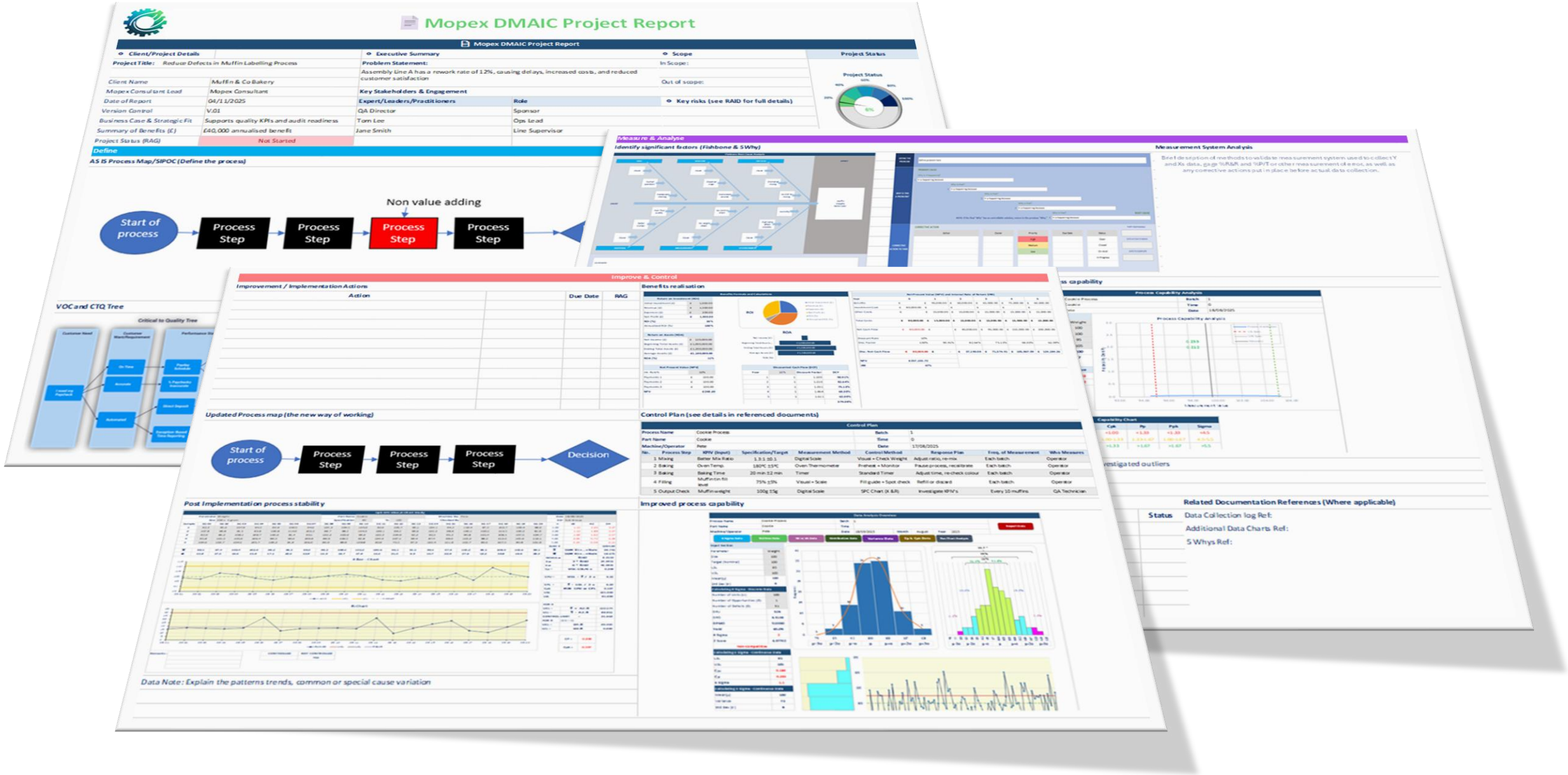
### Mopex DMAIC Toolkit (Suggested Assets)

| Asset | Format | Purpose |
|---|---|---|
| DMAIC Project Charter Template | Word/Excel | Define scope and objectives |
| SIPOC & Process Map Templates | Excel/Visio | Visualise process boundaries |
| CTQ Tree & VOC Capture Sheet | Excel | Translate customer needs |
| Root Cause Analysis Pack | Word/Excel | Analyse and prioritise causes |
| Kaizen Event Planner | Excel | Structure rapid improvement |
| Control Plan & SPC Dashboard | Excel/Power BI | Monitor and sustain performance |
| Benefits Tracker & ROI Model | Excel | Quantify impact and payback |
| Report-Out Slide Deck | PowerPoint | Communicate results to client |

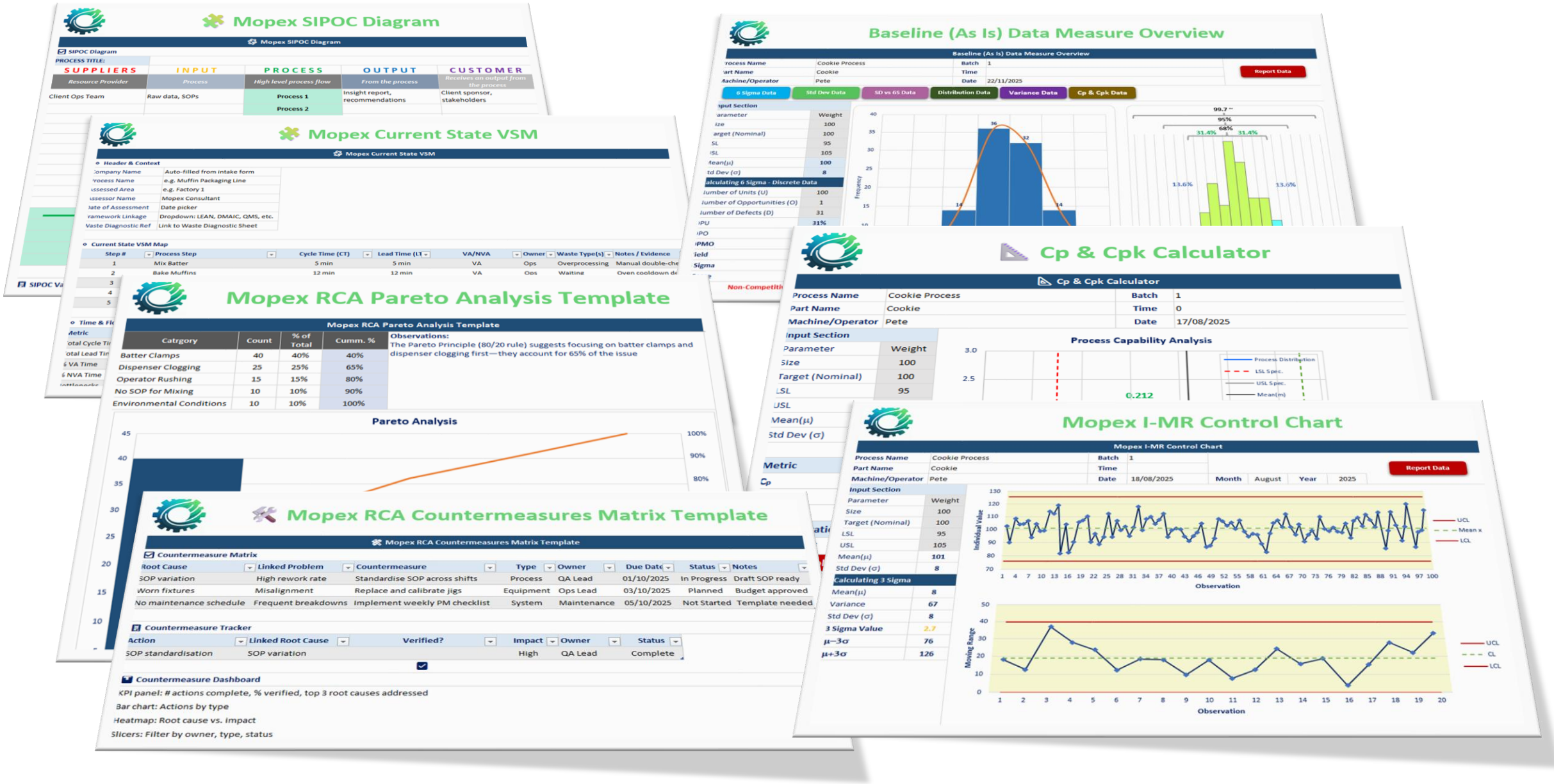
# DMAIC Project Tracking Documents linked to Dashboard



# DMAIC A3 Project Reporting



# Some DMAIC Project Tools



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# DMAIC Project Pricing

| Mopex Six Sigma DMAIC 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** | DMAIC Optimisation Methods | 6–14 | Gold | £11,400–£19,000 |
| **OpEx Plus** | OpEx Core + Training + Dashboard | 6–18 | Platinum | £19,000–£30,400+ |
| **OpEx Enterprise** | Monthly DMAIC CI Governance | TBC | TBC | TBC |
| **Milestone Model** | **Deliverables** | **Timing** | **% of Total Fee** | |
| **Define & Kickoff** | Project charter, VOC analysis, stakeholder alignment | Week 1–2 | 20% | |
| **Measure & Analyze** | Data collection plan, baseline metrics, root cause analysis | Week 3–5 | 25% | |
| **Improve** | Solution design, pilot implementation, impact tracking | Week 6–7 | 25% | |
| **Control & Handover** | Control plan, SOPs, training, dashboard | Week 8–9 | 20% | **OpEx Core Package Example £11,400.00** |
| **Bonus ROI Pack** | ROI logic, DMAIC dashboard, comms assets | Optional | 10% | |
| **Month Model** | **Deliverables** | **Timing** | **Fee (£)** | |
| **Month 1** | Waste diagnostic, process walk, Kaizen event, updated SOPs | 1 | **£7,600.00** | |
| **Month 2** | Final waste map, control actions, training handover | 0.5 | **£3,800.00** | |
| **Month 3** | Control plan, SOPs, dashboard, ROI forecast | 0 | **£0.00** | |

# Mopex ROI Forecast Model for DMAIC Projects

**Mopex ROI Forecast Model for DMAIC Projects,** it's designed to quantify the financial and operational impact of data-driven process improvement using the DMAIC methodology.

### 1. Cost Inputs

| Category | Typical Range |
|---|---|
| Mopex Implementation Fees | £30,000–£65,000 (fixed or day rate) |
| Internal Resource Allocation | 120–350 hours (client-side) |
| Tooling & Digital Assets | £5,000–£15,000 (Excel, Power BI, Python, Mopex templates) |
| Data Collection & Analysis | £3,000–£10,000 (surveys, ETL, dashboards) |
| Change Management & Training | £2,000–£6,000 |

### 2. Value Drivers

| Driver | Mopex Impact Range |
|---|---|
| Defect Reduction | 30–70% fewer errors and rework incidents |
| Process Cycle Time Improvement | 15–40% faster execution across key workflows |
| Cost Avoidance (Labour & Waste) | £20k–£150k saved annually |
| Customer Satisfaction Uplift | 10–25% improvement in CSAT/NPS scores |
| Compliance Risk Mitigation | £10k–£100k avoided exposure |
| Productivity Gains | 10–35% increase in throughput or output |

### 3. Example ROI Scenarios

| Scenario | Cost (£) | Value (£) | ROI (%) |
|---|---|---|---|
| SME, DMAIC applied to service workflow | £40,000 | £130,000 | 225% |
| Mid-size, DMAIC + LEAN integration | £60,000 | £220,000 | 267% |
| Enterprise, multi-site DMAIC rollout | £85,000 | £320,000 | 276% |

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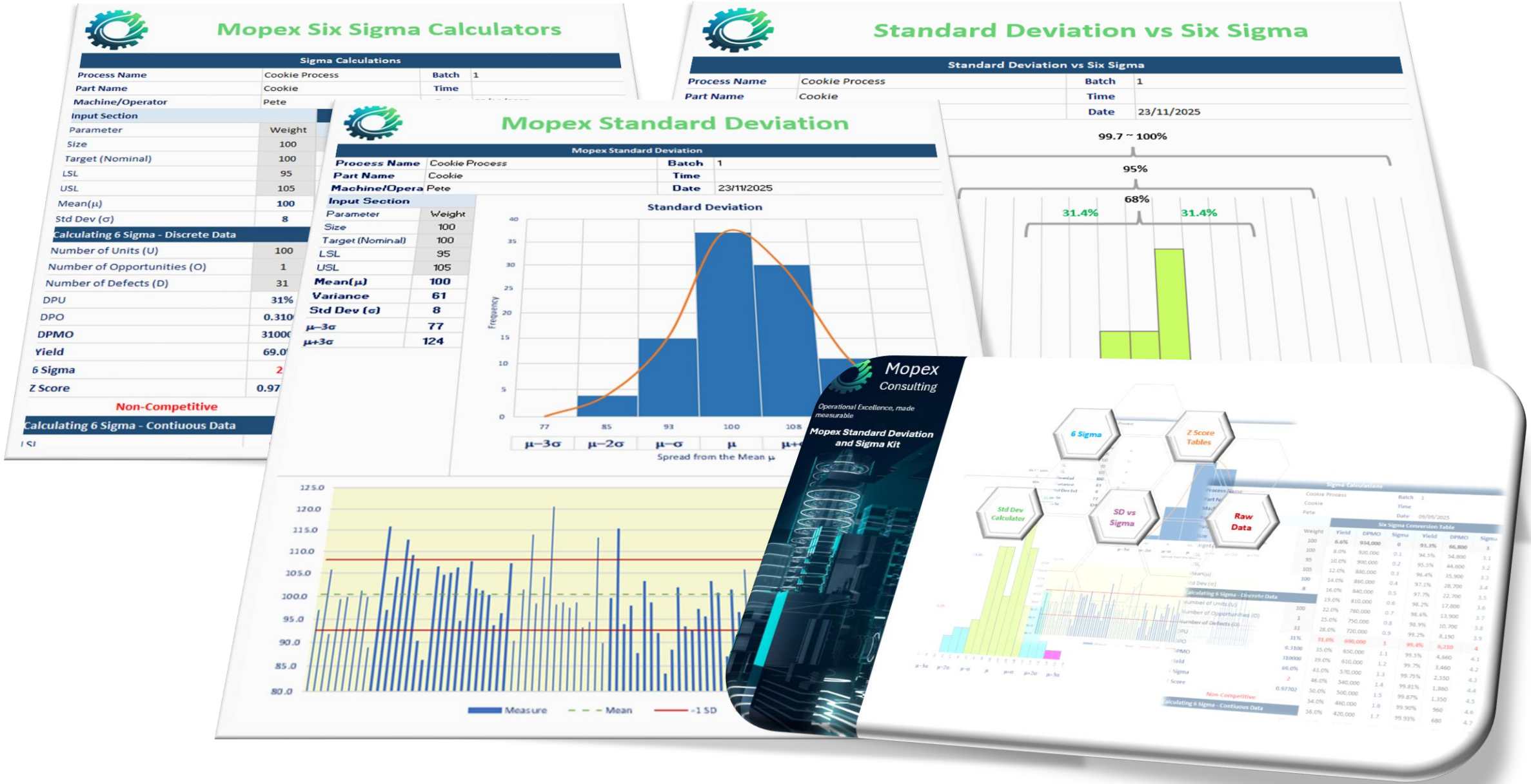
# DMAIC Project Tools Available


Mopex Six Sigma Calculators
Sigma Calculations
Process Name
Cookie Process
Batch
1
Part Name
Cookie
Time
Machine/Operator
Pete
Input Section
Parameter
Weight
Size
100
Target (Nominal)
100
LSL
95
USL
105
Mean(μ)
100
Std Dev (σ)
8
Calculating 6 Sigma - Discrete Data
Number of Units (U)
100
Number of Opportunities (O)
1
Number of Defects (D)
31
DPU
31%
DPO
0.310
DPMO
31000
Yield
69.0
6 Sigma
2
Z Score
0.97
Non-Competitive
Calculating 6 Sigma - Contiuous Data
Mopex Standard Deviation
Mopex Standard Deviation
Process Name
Cookie Process
Batch
1
Part Name
Cookie
Time
Machine/Opera
Pete
Date
23/11/2025
Input Section
Parameter
Weight
Size
100
Target (Nominal)
100
LSL
95
USL
105
Mean(μ)
100
Variance
61
Std Dev (σ)
8
μ−3σ
77
μ+3σ
124
Standard Deviation
Frequency
Spread from the Mean μ
Measure
Mean
±1 SD
Standard Deviation vs Six Sigma
Standard Deviation vs Six Sigma
Process Name
Cookie Process
Batch
1
Part Name
Cookie
Time
Date
23/11/2025
99.7 ~ 100%
95%
68%
31.4%
31.4%
Mopex
Consulting
Operational Excellence, made measurable
Mopex Standard Deviation and Sigma Kit
6 Sigma
Z Score Tables
Std Dev Calculator
SD vs Sigma
Raw Data