**Change Control Management Roadmap**

Mile Marker Plan with Project Details (Merged Customer Feedback into Closed-Loop)

# Mile Marker 1 — Unified Change Foundation

## Global Change Framework (Unified, Modular Tailoring)

### Project Objective

Create a single, modular enterprise change framework that standardizes core deliverables, governance, decision rights and traceability while allowing BU-level tailoring.

### Project Description

Define the “happy path” baseline for change control, the deliverables that constitute "what good looks like," and modular building blocks BUs can adapt. Embed readiness confirmation, lifecycle-specific rules and scalable execution so the framework supports both small teams and enterprise-scale adoption.

### Problem Statement

Across Molex, different business units and functions operate with their own change practices, templates, and approval paths. This fragmentation causes inconsistent execution, duplicated work, protracted approval cycles, and lost or incomplete evidence. Audits are harder to pass because reviewers cannot reliably find the authoritative change record or assess whether every step was completed. The lack of a single reference process also makes it difficult to train new staff, benchmark performance, or scale improvements.

### Who Has the Problem

Business unit leaders who must align local practices with enterprise goals; product managers and engineering leads who experience rework and delays; manufacturing and quality teams who must execute changes without clear upstream signals; program managers and compliance officers who struggle to demonstrate consistent process adherence across sites.

### What They Want to Do

They want a clear, enterprise-endorsed process that defines the mandatory stages and deliverables for change while permitting local tailoring where appropriate. They want a reliable baseline that reduces cycle time, eliminates duplicate approvals, and provides a predictable path for audits and continuous improvement.

### What's Preventing the Objective (Constraints)

Barriers include entrenched local practices and resistance to change, multiple legacy tools and fragmented data stores, unclear or overlapping role ownership, and limited centralized governance and enforcement mechanisms. Organizational change management and training capacity are also required to achieve adoption.

### Why this Project Matters to the Future of Managing Change

This project is foundational: it creates the standard operating model on which all other change capabilities depend. Without it, automated workflows, traceability, and cross-functional alignment will repeatedly fail due to inconsistent inputs and expectations. Implementing the framework is the critical first step toward a scalable, auditable, and responsive change capability.

# Mile Marker 1 — Unified Change Foundation

## Decision Rights and Governance (BU-Tailored)

### Project Objective

Define and implement clear decision rights and a responsibility matrix that maps enterprise roles to BU reality.

### Project Description

Establish an intuitive responsibility model that replaces ambiguous assignment practices. Provide templates and mapping rules so each BU can translate their roles into enterprise responsibilities, minimizing ambiguity while preserving organizational differences.

### Problem Statement

Approval loops are slow and error-prone because it is unclear who must approve what. Multiple systems may require approvals for the same change, and different stakeholders interpret responsibilities differently. This leads to duplicated approvals, missed reviewers, and finger-pointing when changes fail or are delayed.

### Who Has the Problem

Engineers and product teams awaiting approvals; change approvers uncertain of their scope; BU leaders needing clarity to govern their teams; operations and procurement that must act when approvals are complete.

### What They Want to Do

Stakeholders want a straightforward, role-based matrix that clarifies accountability and reduces ambiguous or duplicate approvals. They want an accepted, referenced model so decisions flow faster and screening for necessary stakeholders is automated or simplified.

### What's Preventing the Objective (Constraints)

Challenges include diverse BU structures and titles, political resistance to perceived loss of authority, inconsistent tool support for enforcing role-based rules, and a lack of canonical role definitions that can be programmatically enforced.

### Why this Project Matters to the Future of Managing Change

Clear decision rights are a force multiplier for change control: they reduce latency in approvals, enable automation of routing rules, and build trust in the process. When decision rights are explicit and mapped, it becomes feasible to automate notifications and gate checks, enabling scale.

# Mile Marker 1 — Unified Change Foundation

## PCN Revamp (Process Foundation)

### Project Objective

Redesign the Product Change Notice (PCN) process so it aligns to the new framework and supports traceable, efficient change control.

### Project Description

Modernize the PCN lifecycle including submission, evidence capture, approvals, implementation plans and closure. Remove manual handoffs and introduce standardized metadata so PCNs integrate with downstream systems and the SSOT.

### Problem Statement

PCNs are inconsistently populated, often lacking the necessary evidence or context, and are manually routed across email and spreadsheets. This results in missed updates, delayed product releases, and insufficient traceability for audit or customer notification purposes.

### Who Has the Problem

Product managers who must notify customers and stakeholders; quality and regulatory teams needing evidence for compliance; manufacturing and procurement who implement the change; customers who expect timely and accurate PCN information.

### What They Want to Do

They want a predictable PCN workflow that captures all required evidence, automates routing and notifications, and updates downstream artifacts without manual re-entry.

### What's Preventing the Objective (Constraints)

Obstacles include legacy templates and approval mechanisms, disparate systems, and limited integration capabilities between PLM, ERP, and QMS systems. There is also the organizational work of standardizing PCN content and training users.

### Why this Project Matters to the Future of Managing Change

Revamping PCNs removes a major source of downstream errors and customer dissatisfaction. It turns PCNs from a paperwork burden into an effective control and communication mechanism integral to enterprise change management.

# Mile Marker 2 — Single Source of Truth & Digital Thread

## Single Source of Truth (SSOT) for Change

### Project Objective

Implement an authoritative repository for all change artifacts and status to ensure everyone references the same current information.

### Project Description

Centralize change records, approvals, evidence, and impact data into a single platform or verified federated layer. Provide role-based access and searchability so stakeholders can reliably find the authoritative record and evidence for any change.

### Problem Statement

Multiple systems and copies of records cause confusion about which item is current. Stakeholders waste time reconciling versions, and auditors cannot easily determine the authoritative history of a change.

### Who Has the Problem

Auditors, change managers, engineering leads, and operations who need trustable records; integrators and IT who must map and maintain system interchanges.

### What They Want to Do

A single place to find authoritative change status, associated evidence, and linked artifacts so teams can act without manual reconciliation.

### What's Preventing the Objective (Constraints)

Barriers include integration complexity between PLM, ERP, QMS and other systems; governance for data ownership; migration and cleansing of legacy records; and ensuring performant search and access controls.

### Why this Project Matters to the Future of Managing Change

SSOT is the platform-level foundation. It enables reliable analytics, traceability, and automation. Without a trusted source, downstream automation and governance cannot operate effectively—SSOT is the prerequisite for enterprise-scale change capabilities.

# Mile Marker 2 — Single Source of Truth & Digital Thread

## Digital Thread Traceability (End-to-End)

### Project Objective

Provide end-to-end traceability linking requirements → design → change → manufacturing → field performance.

### Project Description

Construct persistent trace packages that tie requirements, design artifacts, test evidence, approvals and manufacturing outcomes. Ensure each change has a clear lineage and retrievable evidence for any point along the lifecycle.

### Problem Statement

Traceability gaps prevent teams from understanding the full impact of a change. When incidents occur, finding the root cause across systems is slow and error-prone.

### Who Has the Problem

Validation engineers, quality teams, regulatory groups, and program managers who must verify what changed and why; customer support requiring historical context.

### What They Want to Do

A single continuous thread that displays the lifecycle events and evidence for any change so teams can rapidly investigate issues and confirm readiness.

### What's Preventing the Objective (Constraints)

Challenges include lack of unique identifiers across systems, inconsistent metadata, and resistance to changing data capture practices upstream.

### Why this Project Matters to the Future of Managing Change

Digital thread traceability transforms change management from a sequence of disconnected events into a coherent lifecycle narrative—vital for audits, continuous improvement, and rapid root-cause analysis.

# Mile Marker 2 — Single Source of Truth & Digital Thread

## Quality Compliance Integration

### Project Objective

Align QMS with change workflows so audits and documentation are complete whenever a change occurs.

### Project Description

Embed compliance checkpoints, automated updates to FMEA and control plans, and audit evidence capture into the change workflow so quality artifacts are current and verifiable at release.

### Problem Statement

Quality artifacts (e.g., FMEAs, control plans) are often out of sync with implemented changes, creating inspection gaps and audit findings. Manual updates are missed or delayed.

### Who Has the Problem

Quality managers, auditors, manufacturing engineers and regulatory teams that are accountable for product compliance and safety.

### What They Want to Do

They want a consistent mechanism where compliance-related documents are automatically updated, reviewed and signed off in tandem with technical changes.

### What's Preventing the Objective (Constraints)

Disconnected QMS tools, manual update expectations, and ambiguity about which function owns specific compliance artifacts.

### Why this Project Matters to the Future of Managing Change

Integrating quality into change workflows reduces audit risk and ensures safety and reliability—making compliance part of the natural flow rather than a separate burden.

# Mile Marker 2 — Single Source of Truth & Digital Thread

## Configuration & Variant Management Maturity

### Project Objective

Standardize configuration management and variant governance so revision handling and reuse are predictable at scale.

### Project Description

Develop unified rules for variant creation, revision handling and where-used tracking. Provide tooling and processes so changes to shared parts propagate correctly and selectively based on impact and customer entitlements.

### Problem Statement

Unclear variant governance and poor where-used visibility cause inadvertent changes to multiple products and customer disruptions.

### Who Has the Problem

Product engineers, PLM owners, manufacturing planners, and customer-facing product managers worried about unintended cross-product impacts.

### What They Want to Do

Clear rules and tooling to know where a part is used, how a change propagates, and which customers or products will be affected.

### What's Preventing the Objective (Constraints)

Legacy PLM limitations, inconsistent modeling and naming conventions, and incomplete where-used metadata across systems.

### Why this Project Matters to the Future of Managing Change

Mature configuration governance is essential to scale product complexity while controlling risk. It enables confident reuse and safe propagation of changes across portfolios.

# Mile Marker 3 — Intelligent Impact Analysis & Automation

## Real-Time Impact Visibility

### Project Objective

Gather impact information once and present downstream consequences in real time to all affected stakeholders.

### Project Description

Create impact models that combine BOM, process, supplier and WIP data to show the downstream and upstream effects of a proposed change, updating dynamically as approvals and inputs evolve.

### Problem Statement

Impact assessments are manual, time-consuming, and often incomplete; teams frequently learn of collateral impacts too late in the process, causing rework and schedule slips.

### Who Has the Problem

Program managers, change owners, engineering leads, manufacturing supervisors and procurement who need to act quickly and accurately on impact information.

### What They Want to Do

Instant clarity about which parts, assemblies, suppliers, and work-in-progress will be affected and guidance on the scale and priority of required actions.

### What's Preventing the Objective (Constraints)

Fragmented master data, lack of real-time integration across systems, and immature impact modeling capabilities and governance.

### Why this Project Matters to the Future of Managing Change

Real-time visibility is critical to reduce decision latency and to enable proactive mitigation. It underpins faster approvals and reduces the downstream cost of changes.

# Mile Marker 3 — Intelligent Impact Analysis & Automation

## Seamless Propagation to Documents/Systems at Right Effectivity

### Project Objective

Automatically propagate approved changes to all relevant documents and systems at the correct effectivity point.

### Project Description

Implement effectivity rules and technical integrations so BOMs, drawings, inspection plans and customer documentation update when the change becomes effective, avoiding early or late updates.

### Problem Statement

Inconsistent update timing across systems results in production running with mixed configurations or documentation that does not match the product in the field.

### Who Has the Problem

Manufacturing planners, BOM owners, document controllers, quality and procurement responsible for ensuring the shop floor and customers receive correct instructions and materials.

### What They Want to Do

Confidence that downstream systems are synchronized with the approved change at the exact planned effectivity, reducing scrap, rework and customer issues.

### What's Preventing the Objective (Constraints)

Diverse legacy systems, lack of standardized effectivity logic, integration costs and testing burden, and unclear ownership of propagation triggers.

### Why this Project Matters to the Future of Managing Change

Automated propagation reduces manual work and the risk of inconsistent states across systems—critical for scale and for ensuring changes are realized correctly wherever they matter.

# Mile Marker 3 — Intelligent Impact Analysis & Automation

## Role-Specific Change Notifications & Experience

### Project Objective

Deliver clear, role-specific notifications that tell recipients why they were notified and what action is required.

### Project Description

Design subscription-based, contextual notifications with direct links to required evidence and action items. Tailor language and content based on role and level of required engagement.

### Problem Statement

Generic or excessive notifications create alert fatigue; recipients do not understand the action required, causing delays and missed compliance steps.

### Who Has the Problem

All change recipients: engineers, quality, manufacturing, procurement and program leads who rely on timely, clear communication to perform their part of the process.

### What They Want to Do

Targeted, actionable notifications that reduce noise, clarify expectations and accelerate required responses.

### What's Preventing the Objective (Constraints)

Poorly structured notification content, lack of role definitions, no subscription controls and limited UX integration with change tools.

### Why this Project Matters to the Future of Managing Change

Better notifications accelerate human workflows. When people receive the right information in the right format, changes flow faster, errors drop, and compliance improves.

# Mile Marker 3 — Intelligent Impact Analysis & Automation

## Integrated Readiness Gates (Validation & Readiness)

### Project Objective

Confirm change readiness via automated checklists and captured evidence before release.

### Project Description

Implement cross-functional gates that verify validation/verification, documentation and compliance items are complete and linked to the change record.

### Problem Statement

Releases sometimes proceed without complete verification or missing evidence, creating field risk and audit exposure.

### Who Has the Problem

Validation teams, quality, operations and release managers who need to ensure products are safe and compliant before deployment.

### What They Want to Do

Be confident that everything required is complete and verifiable before a change goes live.

### What's Preventing the Objective (Constraints)

Siloed test evidence, manual verification steps, inconsistent gate definitions and lack of end-to-end digital linkage.

### Why this Project Matters to the Future of Managing Change

Gates that are auditable and automated protect customers and the company from risk while enabling faster, repeatable release processes as change volumes increase.

# Mile Marker 4 — Closed-Loop Feedback & Learning Integration

## Closed-Loop Feedback (Manufacturing + Customer Integration)

### Project Objective

Capture and route manufacturing, operational and customer feedback into the controlled change process to drive corrective and improvement actions.

### Project Description

Create structured channels for production and customer issues to be triaged and converted into formal change requests with accountable owners, linked evidence and prioritized resolutions. Integrate CRM and field data intake so customer complaints and returns feed the PR and change prioritization workflows.

### Problem Statement

Production and customer issues are often handled informally or via fragmented channels; important signals are missed or delayed, root causes are not tracked, and systemic remedies are not applied. This results in repeated failures, customer dissatisfaction and hidden costs.

### Who Has the Problem

Manufacturing line teams, process and quality engineers, customer support, field service, product managers and supply chain who must respond to recurring issues and maintain customer commitments.

### What They Want to Do

A unified feedback pathway that elevates operational and customer signals into the formal change process with sufficient context, evidence and prioritization so teams can resolve root causes and communicate outcomes to customers.

### What's Preventing the Objective (Constraints)

Fragmented shop-floor systems, siloed CRM and support tools, lack of integration between field data and change management platforms, inconsistent data quality, and organizational reluctance to formalize rapid fixes.

### Why this Project Matters to the Future of Managing Change

By integrating manufacturing and customer feedback, the organization gains a comprehensive, evidence-driven loop that aligns operational realities and customer impact with design decisions. This accelerates corrective actions, reduces recurrence, and restores customer trust—key to a resilient change-management future.

# Mile Marker 4 — Closed-Loop Feedback & Learning Integration

## Early Warning & Monitoring

### Project Objective

Detect emerging issues via operational analytics and trigger timely investigations or PRs.

### Project Description

Leverage sensors, SPC and production trends to generate alerts and automated PRs that feed into the change pipeline.

### Problem Statement

Sensors and production metrics surface anomalies, but these signals remain siloed and rarely translate into structured change activity, allowing problems to grow before intervention.

### Who Has the Problem

Process engineers, production supervisors, quality analysts and operations managers who need timely signals to prevent escalation.

### What They Want to Do

They want reliable, contextual alerts that automatically feed the change process and provide recommended next steps to investigate and remediate.

### What's Preventing the Objective (Constraints)

Data quality issues, disconnected data streams, lack of trusted analytics models and limited change-tool integration limit automated actionability.

### Why this Project Matters to the Future of Managing Change

Early detection and automated escalation reduce cost of poor quality and enable proactive change—shifting the organization from reactive firefighting to preventive management.

# Mile Marker 4 — Closed-Loop Feedback & Learning Integration

## Institutional Knowledge Reuse

### Project Objective

Surface past learnings (QNs, 8Ds, FMEA mitigations) to inform current change decisions.

### Project Description

Index and curate historical resolution cases and mitigation packages so change evaluators can find precedent, reuse proven fixes and avoid repeating past mistakes.

### Problem Statement

Historical lessons are buried in documents and tickets and are not readily discoverable during change evaluation, leading to repeated work and slower resolution.

### Who Has the Problem

Engineers, change reviewers, quality leads and program managers who need historical context to make informed decisions quickly.

### What They Want to Do

They want searchable, curated knowledge that surfaces the right precedents and mitigations at the point of decision.

### What's Preventing the Objective (Constraints)

Unstructured legacy data, limited metadata, lack of curation workflows and resource constraints for knowledge management.

### Why this Project Matters to the Future of Managing Change

Institutional reuse accelerates decision-making, increases consistency of remediation, and converts organizational memory into practical decision support.

# Mile Marker 5 — Extended Enterprise Intelligence

## Extended Enterprise Collaboration (Suppliers & Partners)

### Project Objective

Enable secure, role-based participation of suppliers and partners in change workflows to create a true extended enterprise.

### Project Description

Provide external users with simplified interfaces and controlled access so they can review, confirm, and contribute to change activities (e.g., tooling, material changes) while preserving traceability and security.

### Problem Statement

Supplier coordination is manual and inconsistent; dependencies are missed and supplier-side changes are not effectively captured or synchronized, causing delays and quality issues.

### Who Has the Problem

Procurement, supplier quality engineers, manufacturing engineers and supplier managers who must coordinate external change activity and ensure supplier readiness.

### What They Want to Do

Seamless supplier collaboration inside formal change workflows so supplier approvals and inputs are recorded, visible and actionable.

### What's Preventing the Objective (Constraints)

Supplier system heterogeneity, security and access control complexity, onboarding effort, and supplier reluctance to adopt new portals or methods.

### Why this Project Matters to the Future of Managing Change

Bringing suppliers into the controlled process reduces downstream surprises, shortens lead times for supplier-driven changes, and embeds supplier confirmations into the controlled record—critical for scale and resilience.