



CLIENT CASE STUDY

Automotive Supplier Accelerates Digital Shift with CM2 Framework for Growth

The Challenge: Navigating Complexity with Outdated Processes

As a leader in accessible mobility, this Client manages a complex and rapidly evolving product line. Their "As-Is" state was characterized by outdated and manual change & development processes that created significant risk and inefficiency, preventing true digital traceability and efficient execution of changes. Client came to IpX for process improvement and PLM selection.

Key pain points included:

- Reliance on Tribal Knowledge: Critical product information and process steps often resided solely with long-term subject matter experts, creating knowledge silos and high risk of process disruption.
- Manual Change Management: The change process relied heavily on paper-based documents (like ECRs, ECNs and RFIs), leading to poor data integrity, lack of transparency, and difficulty in measuring progress.
- Inefficient Change Cycle Time: The current state metric for the overall cycle time of a change (rolling 3 months average) was inefficient. The lack of a clear, standardized workflow inflated the time required to move from an identified problem to a fully implemented solution.
- Risk of Tool-Led Implementation: Without a defined blueprint, Client was vulnerable to a common pitfall: allowing the chosen PLM tool's out-of-the-box configuration to define the business process, rather than adhering to best-practice industry standards.

The Solution: A Process-First, CM2-Driven Approach

We were engaged to de-risk Client's digital transformation journey by establishing a modern, CM2-compliant (Configuration Management II) foundation before selecting any technology. This approach ensured that business processes lead, and tools follow. The engagement was divided into two core workstreams:

Workstream 1: Process Definition & PLM Functional Requirements

We conducted an exhaustive discovery phase, including over 35 in-depth interviews and KJ analysis, to meticulously define the "To-Be" state. This effort resulted in over 200 comprehensive functional and technical requirements across Change Management, Engineering Product Definition, and Security.

This work stream introduced the CM2 V-Model of Development and a clear, three-tiered Change Management process:

- Investigation Request (IR): Formalizing the reporting of a problem or idea when the solution is unknown.
- Change Request (CR): Formalizing the risk, cost, and feasibility assessment once a solution is identified.
- Change Notice (CN): The final execution and implementation plan for the approved change.



THE CM2 FRAMEWORK: THE ENGINE OF TRANSFORMATION

Workstream 2: Fit-For-Purpose Tool Selection

Using the CM2-based requirements as the objective criteria, we ran a competitive technology bidding process. This requirements-driven selection process evaluated leading PLM solutions (Aras, Teamcenter, Windchill) on capability, cost, and suitability.

While two PLM providers met the critical technical requirements, the decision was ultimately driven by achieving the best balance of capability, cost, and configuration/customization. The software pricing, which was locked in for three years, proved to be a significant factor favoring the recommended solution.

Quantifiable Results & Projected ROI

By transitioning from manual, tribal processes to a structured CM2 framework underpinned by a modern PLM tool, Client is positioned to achieve significant, quantifiable improvements in efficiency, effectiveness, and product quality.

Future State Metric	Goal	Projected Quantifiable Improvement (Hypothetical ROI)
Overall Cycle Time of a Change	Meet Need by Dates	Based on the streamlined IR/CR/CN flow and elimination of manual approvals, IpX projects a hypothetical reduction of 40-60% in the change implementation cycle time
First Time Yield (FTY)	Increase FTY	With clear, role-based ownership (Change Leader, Change Implementation Leader) and mandatory dataset validation, FTY is expected to exceed 95%, significantly reducing rework costs and implementation errors.
Realized ROI per Change	Higher ROI	The mandatory Enterprise Change Assessment (ECA) for all changes—capturing technical recommendation, cost, schedule, and site impact—will empower the Change Review Board (CRB) to make informed business decisions based on ROI, ensuring resources are focused on the highest-value changes.



THE CM2 FRAMEWORK: THE ENGINE OF TRANSFORMATION

The Path to the Digital Thread

Our engagement established a clear roadmap for Client to build a true Digital Thread:

1. Standardized Structures:

- Shift the paradigm to "Parts-based management" and standardized product structures (EBOM, MBOM) for clear traceability from design to manufacturing.

2. Configuration Management:

- Document, implement and train on clear, concise and valid processes based on user and business requirements.

3. Process Enforcement:

- The new PLM system will automate the CM2 workflows, ensuring that disciplined processes are consistently applied across integrated functions.

By prioritizing process excellence (CM2) first, Client has confidently selected the right technology partner to maximize the effectiveness of their investment and ensure their sustained growth in the automotive industry.

Next Steps

The Client is working to prioritize the next Phases of their PLM journey and will continue to focus on business processes lead the requirements generation, and then tools will be implemented to follow. Client is currently prioritizing the following:

- Options and Variants (150% BOM)
- Service BOM implementation

IpX Services



Let's Talk.