



Modernizing Research Engineering Workflows

SUMMARY

A research organization needed a more structured way to manage laboratory requirements, experiment configurations, and testing data. Existing processes made it difficult to track experiment settings, maintain traceability, and recreate laboratory environments between testing cycles. The organization evaluated a modern application lifecycle management platform to support a more integrated approach to engineering and product lifecycle management.

APPROACH

Our team developed a proof of concept to evaluate how modern engineering lifecycle tools could improve requirements management, collaboration, traceability, and testing within a regulated research environment.

- **Discovery and Process Mapping:** Led value stream mapping, stakeholder interviews, and "day in the Requirements and Workflow Configuration: Configured workflows, permissions, approvals, audit trails, document management, and traceability aligned to laboratory needs.
- **Role-Based Collaboration and Reporting:** Developed role-specific landing pages, dashboards, notifications, and reporting to improve project visibility.
- **Testing and Demonstration:** Configured testing workflows, traceability, and demonstration environments showcasing project management, reporting, and audit capabilities.
- **Training and Knowledge Transfer:** Produced instructional materials and demonstration assets to expand internal platform expertise.

SOLUTION

The engagement delivered a proof of concept centered on a modern application lifecycle management platform integrated into a broader engineering ecosystem. It established the core capabilities needed to manage requirements, testing, approvals, and traceability across laboratory processes. Customized workspaces and reporting tools improved collaboration and project visibility, while demonstration environments helped stakeholders evaluate the platform and prepare for future modernization.

Results

5

5 laboratory organizations evaluated the proof of concept

100%

100% audit trail established

3 Platforms

3 engineering platforms integrated