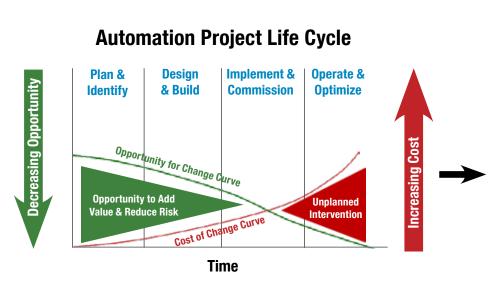


In today's automated world, industrial companies are under pressure to reduce costs and maximize productivity. Automation and MES project life cycle planning is a continuous process involving several steps that can help reduce expenditures, downtime, and risks, all while improving productivity.

Developing a roadmap is an important step in successful process automation engineering. The roadmap is continuous in nature and helps uncover the design basis for your system. CB Pacific is your trusted partner in your automation life cycle plan and will help navigate you through the process to your ideal system.

Planning Today Reduces Risk & Losses Tomorrow

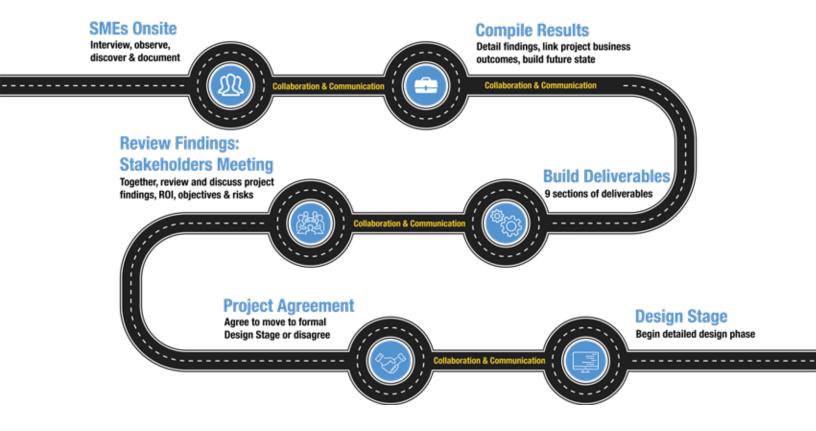
Many times projects fail due to poor planning derived from lack of clear desired outcomes. Industrial companies can suffer various costs of not planning properly risking problems during system cutover, missing functionality, cyber vulnerabilities, and budget and scheduling issues. CB Pacific can help you plan your automation project life cycle properly to ensure maximum productivity and reduced costs.





Plan for Each Project Phase

CB Pacific collaborates with you through each phase of the roadmap planning process with consistent checkpoints. Utilizing best practice discovery tools and applying our experience in uncovering opportunities for improvement, we will lead you through the process to your ideal system.

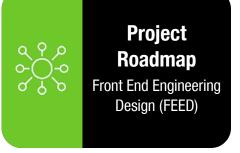


Roadmap Planning Levels

CB Pacific can guide you through the appropriate roadmap to meet your custom needs.







Planning For All Your Application Needs

CB Pacific has different roadmap types to meet your application needs.



Enterprise SCADA

- SCADA Architectures
- Multi-site/Enterprise
- SCADA Redundancy
- High Availability & Fault Tolerance
- Server Clustering Support
- Migration to current platforms
- Intelligent Alarming & Notification
- Historian Architecture & Reporting
- Security Compliance



MES Readiness/ **Deployment**

- Industry 4 & Digital Transformation
- Master Record Information
- Site & Enterprise-wide
- Dashboards, KPIs, Reporting
- **ERP Integration Mapping**



Networking & Security

- Logical Diagram
- Network Segmentation/Vlan
- **Vulnerabilities**
- **Containment Process**
- **High Availability**
- Virtualization
- **Edge-based Solutions**
- Physical to Virtual

Sample Roadmap Deliverables - Functional Design Specifications

Problem Definition

Gap Analysis

SCADA Architecture

Network & Security



- Quality, Yield, Compliance, Safety
- Costs, Risk, Security, Time to Market





- Current/Future State
- Gaps & Remedies



- **Events & Alarms**
- Operator Management
- **Device Management**



- Logical Diagram
- Security/Exposure
- OT LAN Segments/ Reliability

Data Architecture (MES/ERP)

Risks

Next Steps/ Recommendations

Dashboards



- Data Model
- Product & BOM
- Scheduling & Maintenance



- **Identified Risks**
- Mitigations Strategies
 - **Cutover Plan**



- **Priorities**
- Schedule
- Implementation Plan



- Reports
- User Interface
- **KPIs**

We Drive Project Success

Roadmap planning helps avoid everyday manufacturing problems. CB Pacific can help you increase cost of quality like defects, deviations from standards and warranty and abatement, as well as increase throughput and yield, regulatory compliance, and safety. Using CB Pacific's experience and solutions will help decrease time to market and reduce costs like labor, inventory, systems and energy and utilities.









