Redesigning the Way of Working for Electrical Cable Plans

Background

Every customer installation requires an accurate electrical cable plan. The current workflow involves Sales, Mechanical R&D, Electrical R&D, Installation, and Service. As project volume continues to grow, the process must become more scalable while maintaining a high level of information quality.

Current Process Flow

Sales Configuration → Mechanical Proposal → Customer Approval → Final Layout → Electrical Design → Complete Order Design

Your Assignment

- Map the complete current way of working, including inputs, decision points, handovers, responsibilities, and deliverables.
- Interview stakeholders from Sales, Project Management, Mechanical R&D, Electrical R&D, Installation, and Service.
- Distinguish between essential project-specific information and information that can be standardized.
- Identify repetitive activities, rework, unclear ownership, and sources of errors or delays.
- Develop and evaluate future-state process concepts together with the project team.

Design Direction

Potential improvement areas include:

- Standardized drawing templates and modular cable-plan building blocks.
- Configurable input sheets and automated cable and BOM (Bill of Materials) selection.
- General work instructions for recurring installation details.
- Clearly defined design rules, ownership, and review responsibilities.
- Verification testing after installation where this can safely replace detailed design documentation.

Expected Deliverables

- Current-state process map and stakeholder analysis.
- Bottleneck, risk, and engineering effort assessment.
- Multiple improvement concepts with a structured comparison.
- Validated future-state process and proof of concept.
- Practical implementation roadmap.
- Graduation report and final presentation.

Tools and Engineering Environment

Microsoft 365

- Word
- Excel
- Teams

Engineering

- SOLIDWORKS Electrical
- SOLIDWORKS Mechanical

Document Management

- SOLIDWORKS PDM

Who We Are Looking For

- HBO student in Electrical Engineering, Industrial Engineering, or a related technical field.
- Interested in electrical cabling, control cabinets, machine installations, and engineering processes.
- Structured, analytical, proactive, and comfortable taking ownership.
- Prior knowledge of Autodesk AutoCAD Electrical and Autodesk Vault is an advantage.
- Brings enthusiasm and initiative while understanding that sustainable change within a large medical technology organization requires patience, collaboration, and stakeholder alignment.

Impact

Create a scalable and future-proof process that significantly reduces the

engineering effort required from both Mechanical and Electrical R&D while preserving safe, complete, accurate, and serviceable installation information.