

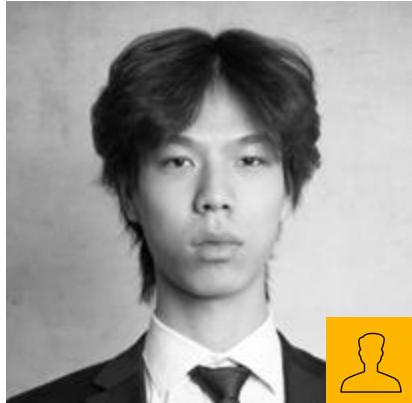
# ElectroNivate PMIS Options Analysis & Recommendation

Team 11: Roy Bou Abboud, Chase Graci, Aryan Nehete, Yiyi Xu





# Team Profile



**Yiyi Xu**

BASc Engineering  
Science – Math,  
Stats, Finance  
Prev @ PwC  
Advisory



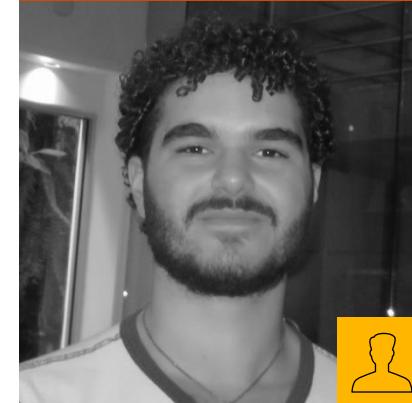
**Roy Bou Abboud**

BASc Engineering  
Science – Robotics  
Prev @ TRUSTE  
Inc @ AtkinsRéalis



**Aryan Nehete**

BASc Engineering  
Science – Math,  
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**Chase Graci**

BASc Engineering  
Science – Math,  
Stats, Finance  
BA Intern @  
Mastermind

With expertise in engineering, finance, and project management, our team brings experience from PwC, TRUSTE, and Mastermind. We leverage analytical thinking and industry insights to develop impactful solutions.

# Executive Summary

## Problem

01

**ElectroNove** requires a Project Management Information System to replace old, outdated Excel-based management. They faced criticism in a past project due to delays caused by poor project management systems, which negatively impacted local communities.

## Recommendation

02

We recommend **ConstructEase**

- Cost Effective
  - Best balance of features, and stays in budget
- User Friendly
  - Simple interface
- Easy Integration
  - Integrates with current systems
- Strong Vendor Support
  - Reliable customer support



## Implementation

03

- Month 1: Pilot Testing
  - Stakeholder workshops & test deployment.
- Month 4: Pilot Implementation
  - Initiate ConstructEase in one project
- Month 7: Organization-Wide Rollout
  - Expand ConstructEase to all projects



# Problem in Context

## ElectroNivate's Background

- Leading electronics manufacturer; 20 year history
- Committed to quality and cost efficiency
- Invested \$3 billion into a smart home device facility
- Outdated project management information system (PMIS)

## Current Issues

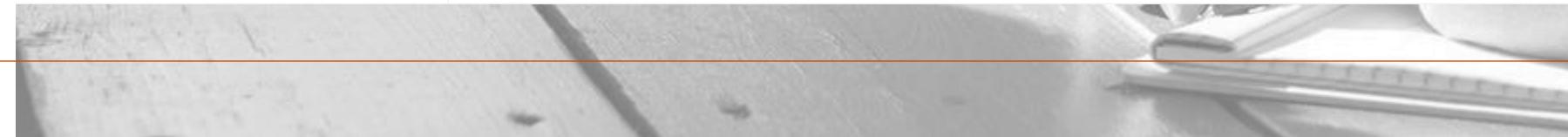
- Manual entry prone to errors, limited real-time collaboration
- Difficulty tracking project progress and managing documents centrally

## Goals

- Become a leader in the smart home device market
- Adopt sustainable manufacturing practices
- Enhance compliance with safety and quality standards to increase reputation
- Partner with technology firms to integrate emerging technologies into their products
- Implement a new, effective PMIS for under \$1.5M
- Begin designing new facility in two years

# Stakeholder Overview

Role	Key PMIS Needs
Project Manager	Robust scheduling, project planning, resource management
Engineering Manager	Design documentation, technical specs, compliance
Construction Manager	Real-time coordination, safety and environmental compliance
Quality Assurance	Integrated QC processes, monitoring capabilities
Operations Manager	Supports transition from construction to operational readiness
Owner	Project visibility, progress reporting, approval workflows
Operational Team	Centralized scheduling, milestone tracking, resource tracking
Contractor	Coordination with ops, aligned schedules
Engineering Team	Technical plan integration, schedule alignment, overall timeline



# PMIS Options Overview

Using SWOT Analysis of all 3 PMIS



# SWOT Analysis – ProjectMaster 360

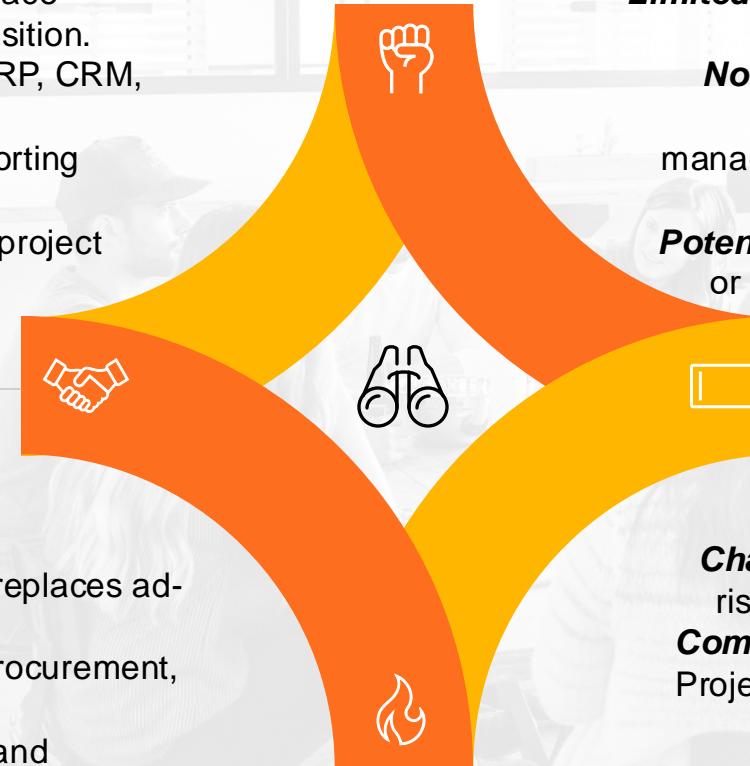


## Strengths

- User-Friendly & Fast Adoption** – Intuitive interface minimizes training, ensuring a smooth Excel transition.
- Seamless Integration** – Connects easily with ERP, CRM, and existing systems, reducing IT disruption.
- Scalability** – Handles projects of all sizes, supporting ElectroNove's growth.
- Robust Scheduling** – Comprehensive tools for project scheduling and resource management.

## Opportunities

- Process Standardization** – ProjectMaster 360 replaces ad-hoc Excel processes, improving efficiency.
- Future Integrations** – Expandable to finance, procurement, and other systems for a unified enterprise.
- Continuous Improvement** – Ongoing updates and community support enhance features over time.



## Weaknesses

- Limited Customization** – Fewer options to tailor the system to unique processes
- No Built-in QA/Safety Module** – Unlike a construction-specific system, it lacks dedicated quality or safety management features (would rely on manual processes or add-ons).
- Potential Hidden Costs** – Additional costs for integrations or customizations may arise, risking budget creep if not managed.

## Threats

- Change Resistance** – Excel users may resist adoption, risking low usage without proper change management.
- Competitor Advances** – Future PMIS tools may outpace ProjectMaster in customization and construction features.
- Scope Creep** – Limited customization could lead to unofficial workarounds, risking data consistency.

# SWOT Analysis – BuildTech Pro



## Strengths

**Advanced Capabilities** – Robust planning, scheduling, and risk management ideal for complex projects.

**Detailed Analytics** – In-depth reports provide clear visibility and data-driven insights for executives.

**High Customizability** – Can be tailored to ElectroNivate's needs, if time and resources allow.

**Strong Vendor Support** – Dedicated account managers and comprehensive training aid implementation.

## Weaknesses

**High Cost** – Upfront licensing and implementation may exceed the \$1.5M budget.

**Steep Learning Curve** – Extensive training required; engineering and construction teams may struggle initially.

**Longer Implementation** – Customization could delay readiness before the design phase.

**Not Industry-Specific** – Lacks built-in construction modules, requiring additional configuration.

## Opportunities

**High ROI** – Advanced features can prevent cost overruns and improve efficiency.

**Enterprise Integration** – ERP connectivity supports finance and procurement for holistic planning.

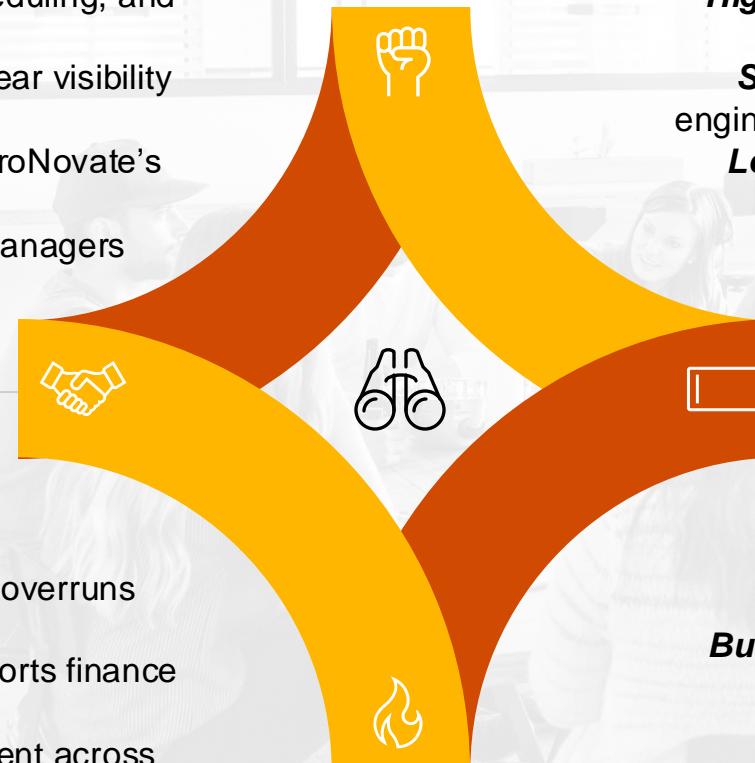
**Scalability** – Can standardize project management across multiple future projects.

## Threats

**User Adoption Risks** – Complexity may lead to underutilization or reversion to old methods.

**Budget Overrun** – High costs and customization could strain finances without clear ROI.

**Alternative Solutions** – If too difficult in testing, stakeholders may push for a simpler alternative.



# SWOT Analysis – ConstructEase

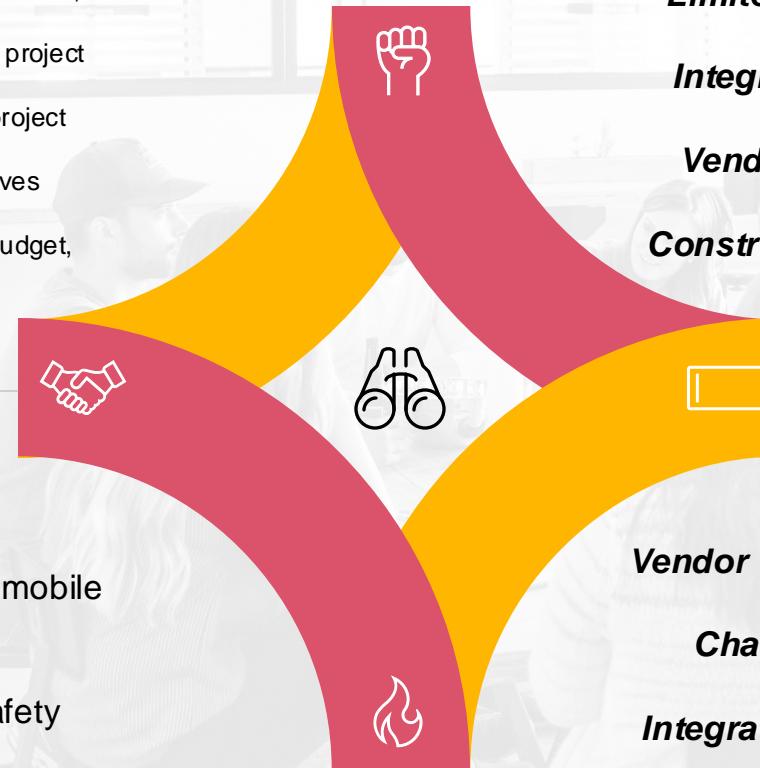


## Strengths

- Construction-Focused** – Purpose-built for construction management, covering RFIs, drawings, and site coordination.
- Real-Time Collaboration** – Enhances communication between project teams and contractors, reducing delays.
- Mobile Accessibility** – On-site teams can access and update project data anytime.
- Quality & Safety Tools** – Integrated compliance tracking improves safety and quality control.
- Budget-Friendly** – Subscription model likely within the \$1.5M budget, offering cost predictability.
- User-Friendly** – Intuitive interface minimizes training time.
- Strong Support** – Dedicated vendor support ensures smooth implementation.

## Opportunities

- On-Site Efficiency** – Faster issue resolution via mobile access and real-time updates.
- Safety & Quality Leadership** – Can enhance ElectroNivate's reputation through strong QA/Safety standards.
- Scalability** – Supports future facility expansions and construction projects.
- Vendor Collaboration** – Potential to influence feature development as a key client.



## Weaknesses

- Limited Analytics** – Lacks deep executive-level reporting compared to competitors.
- Integration Challenges** – Requires effort to connect with existing enterprise systems.
- Vendor Maturity** – May have a smaller update cycle and community presence.
- Construction-Specific** – Less flexible for non-construction projects.

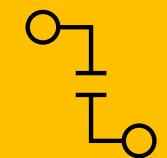
## Threats

- Vendor Viability** – If niche, long-term sustainability could be a risk.
- Change Resistance** – Some stakeholders may prefer a more general PMIS.
- Integration Risks** – Data silos could emerge if not properly synced with ERP and other systems.



# Qualitative Analysis

Using a Weighted Decision Matrix



# Justification of Criteria

## Cost

01

Adheres strictly to \$1.5M budget, ensuring financial feasibility

## Functionality

02

Directly addresses ElectroNivate's key project management needs

## Integration Ease

03

Streamlined integration minimizes disruption and IT workload

## User Friendliness

04

Ensures high adoption rates through easy, intuitive use

## Vendor Support

05

Reliable vendor partnership, training, and continuous support

# Qualitative Decision Making

Criteria	Weight	ProjectMaster 360	Buildtech Pro	Construct Ease
Cost	15%	4/5 (0.60) – Subscription; possible extra integration cost	2/5 (0.30) – High upfront; likely over budget	5/5 (0.75) – Subscription; within budget range
Functionality	30%	4/5 (1.20) – Robust scheduling & resources; limited customization	5/5 (1.50) – Advanced planning & risk features; highly customizable	5/5 (1.50) – Construction-focused features (QA/safety); comprehensive tools
Integration Ease	20%	5/5 (1.00) – Seamless ERP/CRM integration	4/5 (0.80) – Easily integrates with ERP	4/5 (0.80) – Integrates with third-party tools (ERP possible)
User-Friendliness	20%	5/5 (1.00) – Intuitive interface, quick adoption	2/5 (0.40) – Complex, steep learning curve	5/5 (1.00) – Easy navigation, mobile access boosts use
Vendor Support	15%	4/5 (0.60) – Strong support & community resources	5/5 (0.75) – Dedicated account managers, extensive training	5/5 (0.75) – Dedicated support team, responsive service
<b>Total Weighted Score</b>	100%	<b>4.40</b>	<b>3.75</b>	<b>4.80</b>



# Stakeholder Considerations

Managers, Leads, IT & Executives/Owners





# Project Managers

## **Key Needs**

- Project planning & scheduling
- Resource management
- Risk tracking and updates

### **ProjectMaster 360**

- ✓ Robust scheduling and resource tools
- ✗ Risk module limited (no specialized risk management, may use add-ons)

### **BuildTech Pro**

- ✓ Advanced scheduling & risk management features & resource tools
- ✓ Detailed analytics for progress tracking

### **ConstructEase**

- ✓ Scheduling tools adequate for construction timelines
- ✓ Focus on field updates reduces risk via real-time info



## Construction Managers & Contractors

### Key Needs

- Real-time field updates
- Document control on site
- Mobile access to plans

#### ProjectMaster 360

- Basic document sharing and tracking
- ✗ No dedicated mobile app noted; laptop access required on-site

#### BuildTech Pro

- Project updates possible but interface is complex for field use
- ✗ Mobile support is not a highlighted feature

#### ConstructEase

- ✓ Real-time collaboration with teams & contractors
- ✓ Robust mobile app for on-site access to drawings & updates



# Engineering Leads & Team

## **Key Needs**

- Design document collaboration
- Change tracking control
- Integration with design tools

### **ProjectMaster 360**

- ✓ Document collaboration allows simultaneous editing and change logs
  - Tracks versions of files without CAD integration

### **BuildTech Pro**

- ✓ Powerful project planning can integrate design schedules; potential integration with design software
- ✓ Customizable to include design-phase workflows

### **ConstructEase**

- ✓ Tailored to design-build projects, facilitating coordination between design and construction teams
  - Supports sharing/tracking without CAD integration



# Quality Assurance Managers

## **Key Needs**

- Quality control checkpoints
- Safety compliance tracking
- Issue resolution workflow

### **ProjectMaster 360**

✗ No built-in QA/safety module (would need external tracking or custom fields)

### **BuildTech Pro**

– Can be customized to include QA forms and safety workflows, but not out-of-the-box

### **ConstructEase**

✓ Integrated quality tools ensure standards compliance  
– Issue tracking related to quality is built into project workflows

# IT Department

## Key Needs

- Integration with ERP & CRM
- Cloud compatibility
- Low maintenance overhead

### ProjectMaster 360

- ✓ Seamless ERP/CRM integration available
- ✓ Cloud-based PMIS with vendor-managed updates

### BuildTech Pro

- ✓ ERP integration capable with IT support for setup
  - Complex system could demand more IT resources for maintenance and user management due to its scope

### ConstructEase

- ✓ Integrates with third-party systems, likely ERP
- ✓ Cloud solution with vendor support for maintenance
  - Might need custom connectors for full ERP sync



# Operations Managers & Team

## **Key Needs**

- Lifecycle tracking
- Scheduling maintenance
- Real-time operational updates

### **ProjectMaster 360**

- ✓ Effective document storage and tracking
- Requires manual processes or additional integrations for operations management

### **BuildTech Pro**

- ✓ Strong data-driven analytics platform
- ✗ Lacks specific operations management tools out-of-the-box potentially requiring costly customization

### **ConstructEase**

- ✓ Provides real-time updates from construction sites
- ✓ Effective documentation storage and quick mobile access for operational teams



# Executives & Owners

## **Key Needs**

- High-level project dashboards
- Portfolio & ROI tracking
- On-budget confidence

### **ProjectMaster 360**

- ✓ Standard dashboards and status reports
- Limited advanced analytics (leadership might not get predictive insights without extra tools)

### **BuildTech Pro**

- ✓ Rich analytics and reporting provide insight into project performance, risks, and financials
- ROI focused demonstrating value on investments

### **ConstructEase**

- ✓ Execution-focused dashboards show real-time progress and site metrics
- Supplementary reporting needed for financial metrics

# Recommendation - ConstructEase



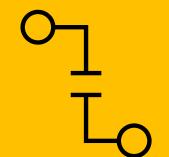
Based on our SWOT analysis and weighted decision matrix, **ConstructEase** is the best PMIS for ElectroNovate. It scored highest overall, balancing cost, strong functionality tailored to construction, easy integration, intuitive user experience, and excellent vendor support. This choice strategically addresses ElectroNovate's key challenges like project delays and communication gaps, ensuring effective implementation within budget.



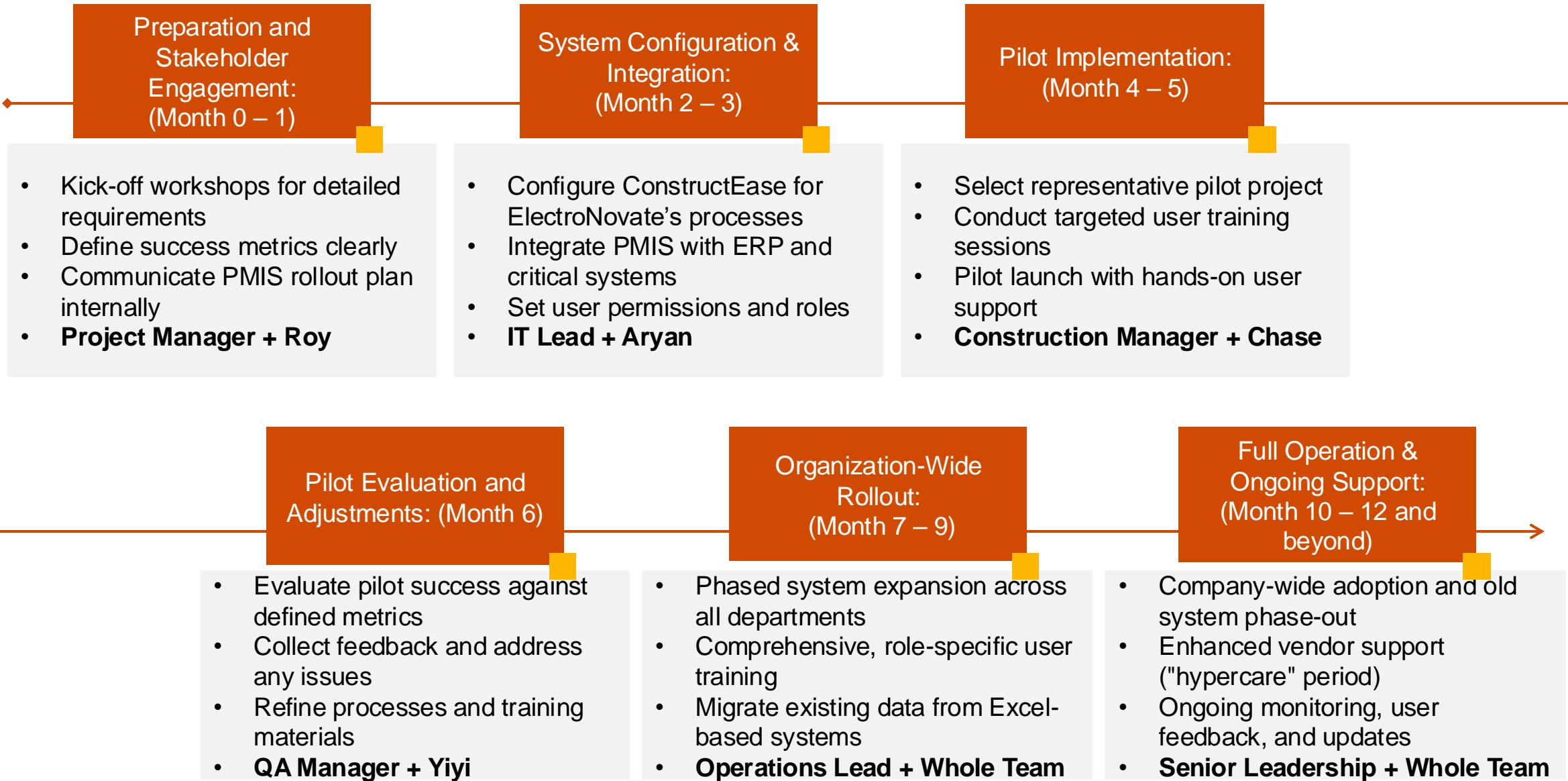


# Implementation Plan

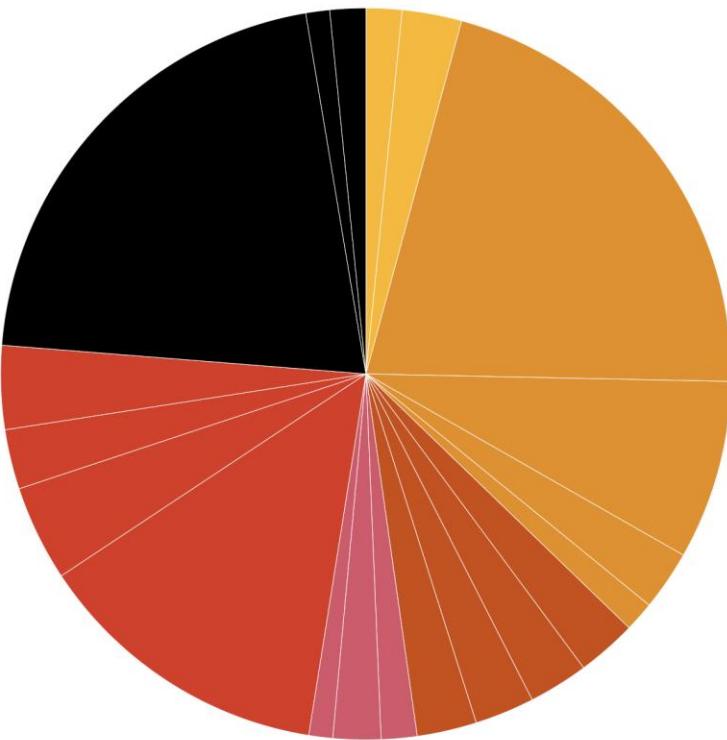
Roadmap + Cost Breakdown



# Implementation Roadmap



# Price Breakdown



Total Cost: \$1.495 M

## Phase 1

- Kick-off workshops & requirements (30)
- Initial consultations, success metrics, and communications planning (50)
- Software licenses/subscription (Year 1) (400)
- Vendor system configuration & customization (150)

## Phase 2

- ERP & system integration effort (50)
- IT resource allocation & security setup (25)
- Pilot project support (vendor consulting) (50)
- Training costs (workshops, materials, vendor trainers) (50)
- Internal resource allocation & user support (50)
- Additional setup (hardware, mobile devices, etc.) (50)

## Phase 4

- Evaluation & analysis (30)
- Vendor consultation for refinements & system adjustments (40)
- Additional user training and documentation updates (20)
- Expanded licenses/subscription scaling (250)

## Phase 5

- Comprehensive training program development and delivery (80)
- Data migration from legacy systems (Excel) (50)
- Vendor support & consulting (rollout support) (70)
- Ongoing support and maintenance (Yearly Subscription renewal) (400)
- Performance monitoring & optimization (20)
- Periodic training updates and user support (30)

In units of \$1000

# ConstructEase Dashboard Mockup

## ElectroNivate Smart Facility Dashboard

### Project Overview



65% Complete

Current Phase: Electrical Installation

### Key Metrics

Budget Usage

\$975K / \$1.5M

🕒 On Schedule

⚠ 2 Risks

### Upcoming Milestones

- 📅 Structural Inspection Mar 20
- 📅 Electrical Installation Apr 5
- 📅 Safety Audit Apr 20

### Open Issues & Risks

- ⚠ Delay in Material Delivery
- ⚠ Contractor Schedule Conflict
- ✓ Safety Compliance

### Team Status



Active Users: 87

12 Online

Resource Allocation at 80%

### Recent Documents

- 📄 Safety\_Plan\_v4.pdf
- 📄 Construction\_Schedule\_March.xlsx
- 📄 Electrical\_Drawings.dwg



A black and white photograph showing the lower half of several people's faces and bodies. They appear to be seated at a long table, possibly in a classroom or lecture hall. The lighting is somewhat dim, creating a focused atmosphere.

# Thank You Q & A