

# Delivering 35% Efficiency Gains: Adba Labs Sets the Standard in Smart Infrastructure

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**Client Industry: Infrastructure Construction**  
**Engagement Period: 2018-2024**



**A Case Study** →

# Executive Summary

Adba Labs partnered with one of Canada's leading vertically integrated infrastructure construction firms to deliver a multi-year digital and operational transformation. The initiative focused on automating plant operations, unifying diverse lines of business, and deploying advanced IoT technologies across 40+ facilities. The result was faster project cycle times, improved margins, and a future-ready platform for sustainable growth and innovation.

## Context & Challenges

The client, operating across heavy civil construction, demolition, shoring, excavation, remediation, paving, and materials manufacturing divisions, relied on in-house capabilities rather than subcontractors. Years of expansion resulted in unique processes, siloed systems, and varying operational methods across lines of business. This fragmentation resulted in inefficiency, limited visibility, and hampered growth potential. Leadership required a digital transformation that could harmonize core operations, standardize data and reporting, and accelerate how quickly the client realized the benefits for both plant and field teams (TTV; time-to-value).

## Our Transformational Approach

### Transformation Strategy

Adba Labs applied its signature **Map → Gap → Solution → Train → Deploy → Hypercare → Steady-State** program, embedding smart building principles from day one. The team's digital blueprint was tailored for a vertically integrated enterprise and focused on true operational transformation.

- Broke down business siloes and streamlined lifecycles for clarity and agility.
- Standardized project estimation and enabled real-time reporting.
- Rolled out IoT automation across 40+ plants to unlock immediate and lasting value.
- Empowered teams with role-based training and hypercare for confident adoption.



## Implementation Highlights



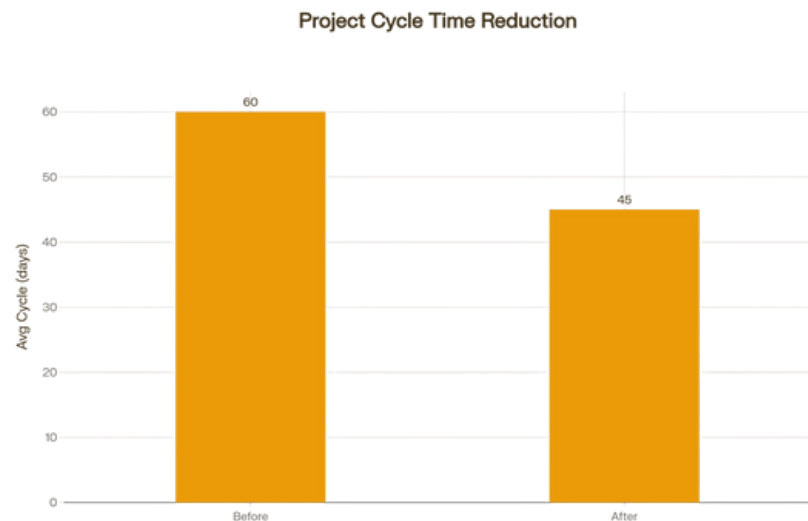
The strategy was brought to life through a series of bold, coordinated steps:

- **Smart Plant Automation:** IoT sensors, digital twins, drones, and real-time analytics enabled instant performance tracking and predictive management.
- **Unified System Integration:** Legacy systems were merged into a single platform, powering standardized scheduling, estimation, and compliance.
- **Change Management:** Role-specific training and hypercare ensured teams embraced new workflows. Continuous feedback kept adoption rates high and improvements ongoing.

## Quantifiable Results & Impact

This comprehensive transformation yielded measurable business value:

- Project cycle times **reduced by 25%** as processes were standardized and automation accelerated delivery.
- Margins **improved by 2-4%** through data-driven controls and operational efficiencies.
- Real-time dashboards slashed status and compliance reporting from hours to **30 minutes**.
- System consolidation and digital controls set the stage for expected **efficiency gains of 35-45%**, with material waste expected to **drop by 20-30%** as optimizations ramp up.
- The organization is positioned to scale digital innovation, achieve operational sustainability, and quickly capitalize on future technological advances.



**2-4%**

Improvement in Margins

**35-45%**

Gains in Efficiency

# Lessons & Best Practices



- Mapping all operational processes in detail is critical to unlocking value from digital transformation.
- Advanced IoT and automation produce immediate, quantifiable impact—but their greatest benefit is in enabling new forms of decision-making and future-proofing growth.
- Change management, robust training, and ongoing support are essential for high adoption and cultural alignment.
- Unification of data and platforms empowers rapid compliance, detailed reporting, and more informed executive oversight.

## Future Outlook

With Adba Labs' blueprint as the foundation, the organization is poised to:

- Rapidly expand plant automation and digital inventory tracking to new divisions.
- Deploy AI-powered production optimization and predictive maintenance tools.
- Move toward smart, net-zero operations with advanced analytics and automation.
- Continue their legacy as an industry leader in innovation-driven, sustainable infrastructure delivery.

### Ready to Build Smarter?

Don't let siloed systems stall your growth.

**Contact us** for a personalized consultation and see what's possible for your organization.



 151 Charles St W, Suite 100,  
Kitchener, ON, N2G 1H6

 [www.adbalabs.com](http://www.adbalabs.com)

 +1 226 666 1066

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