

Benefits of Mobile Technology and Barcode Scanning in Capital Construction Projects

An organization's ability to provide and access information remotely is more important now than ever. Mobile technology, photo, and barcode scanning capabilities have improved remarkably in recent years, allowing teams the real-time data they need to manage projects. The Asset Lifecycle Management group supports companies in various industries to implement project management tools, but this technology is especially beneficial in the construction industry where work is remote by nature and extensive in scope.

Directors Caitlin Barnett and Terence De Beer describe a common use case below – transitioning away from data in disparate spreadsheets toward integrated systems that support capturing data remotely –even in locations with limited connectivity – and providing data between teams who need it.

A US-based utility company endeavored to align both in-office and on-sites construction teams across the country to provide accurate materials data in real time and reduce the effort required to share such data. The company, acknowledging that the purchase of materials by Integrated Supply Chain initiates various processes (e.g. expediting, receiving, inspection, storage, installation, billing, reporting), assessed the role of each team in capturing data and providing that data to others. While the business faced specific challenges, four distinct pain points emerged that apply to materials management in most construction-focused organizations:



Effort. The time and energy required by each stakeholder to receive, combine, organize, manipulate, consume and report data was superfluous and often resulted in duplicative work



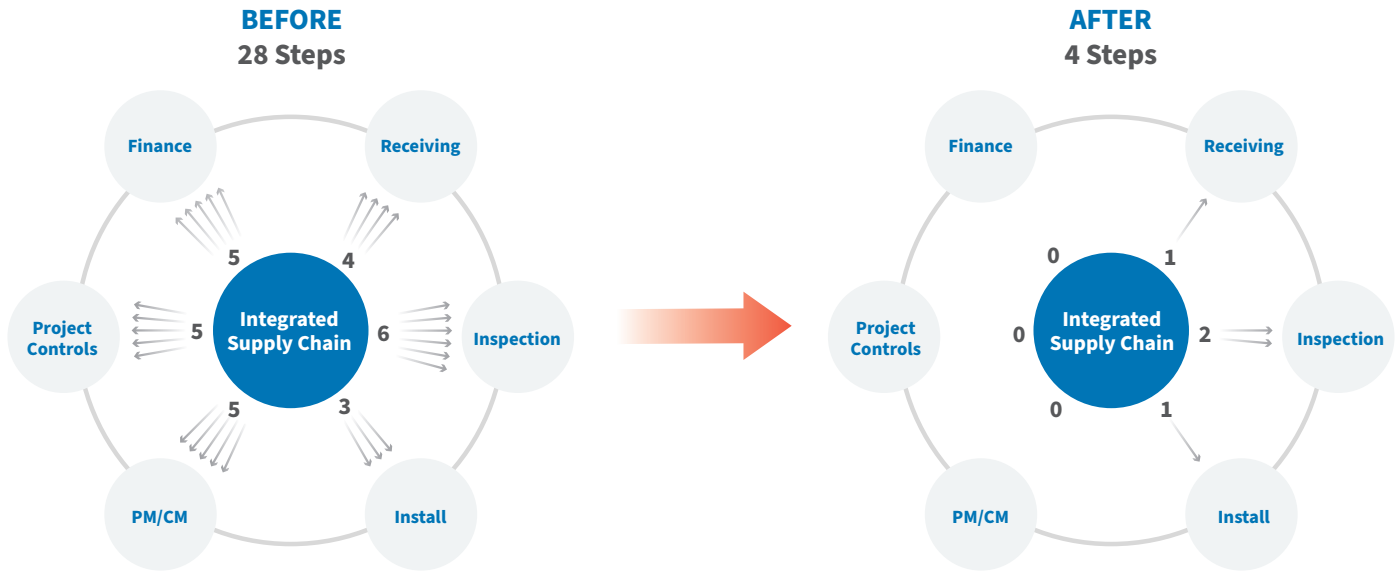
Data Integrity. The number of touchpoints and lack of system controls led to various versions of the same data and questions of accuracy



Integrations. The custom integration between barcode scanners and Microsoft Excel lacked reliability and scalability



Remote Location. The location of some sites caused connectivity challenges, requiring duplicate entry of data – once in the field and once connected to the internet which often required stopping work and returning to a site office



Prior to process and tool improvements, sharing data between Integrated Supply Chain and connected teams required 28 steps, summarized above, with each team completing three or more steps to provide information to another. Leveraging the company’s existing project management system, including mobile capabilities with offline and barcode scanning functions, our team members transformed the process to reduce the total number of steps from 28 to 4 and provide several key benefits:

- **Barcode scanning** reduced time and increased data integrity
- **Mobile technology** allowed entry from any work location and reduced double entry
- **Visibility of current, correct data** to all stakeholders resolved need for requests and emails
- **Inspection documentation** simplified by using photo capabilities via mobile device
- **Real-time installation data** informed progressing and forecasting

- **Weekly receiving meetings** repurposed to resolve issues like delays and damages
- **Reporting capabilities** leveraged to relate material information with other important project data
- **App capabilities** reduced cost of equipment like cameras, barcode scanners, and laptops used to track materials

These benefits were all realized by leveraging investments in existing project management software and unique functional capabilities, best practices and expertise of our team. **Are you making the most out of your project management software? Ask our team at FTI how we can partner with you to help modernize your processes.**

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TERENCE DE BEER

Director
+44 7366 300022
terence.debeer@fticonsulting.com

CAITLIN BARNETT

Director
+1 713 447 8928
caitlin.barnett@fticonsulting.com