

How To Grow Your Construction Firm With Connected Construction

Written by: Andrew Conrad, Senior Content Writer, Software Advice

Imagine a sales team that is unable to connect with customers while away from the office, or an architect who is forced to print out blueprints before visiting a job site. Or - if you're a construction business leader who is struggling to get the best return on your technology investment - a construction team that doesn't know how many required materials are available for a construction project or when a dependent task will be completed.

Yet a 2021 Top Technology Trends survey of small construction firms revealed that less than 80% of these firms felt that technology was either very important or extremely important to their success. But this number should be 100%, and that having the right technology in place is of the utmost importance to the success of all construction firms.

In fact, if you're not getting the return you were hoping for out of your digital technology, you should be investing more time and resources into that technology rather than backing off. In this article, we'll look at some steps you can take to improve safety, communication, and accuracy by bolstering your connected construction technology.

Start With Improved Communication and Transparency

The term "connected construction" might evoke images of drones delivering construction materials and augmented



reality enhanced job sites, but you don't need such futuristic applications to see big results. In fact, the most effective way to see big gains through connected construction is to make sure that everyone and everything in your firm is on the same digital page and using integrated apps.

The vast majority of construction workers are already equipped with smartphones, so your teams are already leading the way to this digital transformation. Your challenge is in making sure that your project team is using this capability to communicate and share data as effectively as possible.

This can be done by selecting a mobile-friendly construction management system and making sure that all of your teams are using it to communicate with each other and update

project budgets, timelines, and other data as a company-wide source of truth.

Once this is in order, ensure that all of your vehicles and equipment are tagged and visible through the fleet management system in your construction software. This will allow managers to always be aware of where vehicles and equipment are, what they're doing, and even what condition they're in.

Next, Grow With Connected Technology That Improves Safety and Efficiency

Once your teams and equipment are connected and communicating on the same network, you should prioritize using this new connectivity to improve overall safety and efficiency.

According to the Department of Labor's Occupational Safety and Health Administration statistics, construction fall protection, ladders, and scaffolding violations were all among the top 10 most frequently-cited OSHA violations in 2020.

So how can connected construction improve safety in these areas and save lives in the construction industry?

Here are a few examples:

- » **Digital safety manuals and training procedures.** When your workers are all equipped with smart devices and mobile-friendly EHS software, safety instructions are at their fingertips when they're about to perform a potentially dangerous task such as working on an elevated platform at a construction site.
- » **Wearable technology.** Connected construction allows contractors and other team members to wear smart hardhats that can be equipped with GPS for real-time location sharing and contact tracing, cameras that allow safety managers to keep an eye on what workers are doing from afar, and even impact sensors to speed up emergency response in the event of an accident.
- » **Augmented and virtual reality training.** A worker could read a safety manual 10 times without truly grasping the potential hazards of a certain job. But experiencing a hazardous material leak or explosion, or falling five stories

from a scaffolding in virtual reality will undoubtedly leave an impression they'll remember when they're on the actual jobsite.

Commit Resources to Culture Change

You can have the most advanced tools and systems in place, but if your team isn't using them properly, these purchases will just be an expensive waste of time and resources. And this can cause difficulty when making the case to invest more in connected construction technology. That's why developing a plan to roll out your connected construction technology and train your teams on how to use it is so important.

How can you do this? Use connected construction to implement connected construction. That may be a bit of a mouthful, but by doing it this way, your team can learn how to use the new technology by actually using it instead of reading about it in a manual or watching a video.

Here's a five-step process for ensuring that your connected construction technology rollout is as successful as possible.


1. Identify staff and resources that will boost connected construction tech adoption. Establish connected construction culture champions on different teams to lead the way.
2. Conduct a tech audit to find out where you stand. What percentage of your team is already equipped with smartphones? Is your construction software mobile-ready? Are all of your vehicles and equipment equipped with sensors that work with your software?
3. Increase tech budget as needed. Don't starve your connected construction tech program to death by failing to fund it. Make sure to budget for new mobile friendly software, GPS-enabled sensors and tags for equipment, cameras, and smartphones for workers who need them, for example.
4. Ask employees for their pain points on using connected construction technology. Do they need training? Are their devices capable of working with your construction software? Do you have a BYOD (bring your own device)

policy in place to ensure that everyone's device is secure and capable?

5. Prioritize a wishlist of resources needed to reach your connected construction technology goals. Present this wishlist to leadership, and then implement new technology and tweak from step one as needed.

Here are a few more examples of how you can use connected construction to implement a culture of connected construction:

- » Distribute digital training materials via personal mobile devices.
- » Train employees on connected vehicles and equipment and show them how the sensors interact with central tracking systems.
- » Employ virtual reality for safety training.

As we've seen in this article, the term "connected construction" refers to a wide range of capabilities and technology in the construction industry. And any modern construction firm should be taking advantage of this connected construction technology to minimize risk, improve efficiency, and ensure project success. 



About the Author

Andrew Conrad is a senior content writer at Software Advice, covering business intelligence, retail, and construction, among other markets. As a seven-time award winner in the Maryland, Delaware, D.C., and Suburban Newspapers of America editorial contests, Andrew's work has been featured in the Baltimore Sun and PSFK. He can be reached at Andrew.Conrad@gartner.com.

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