

The Construction Professional's Guide To Data-Driven Business Decisions

5 Reasons and 25+ Stats on Why You Should be Leading the Digital and Data Transformation Charge at Your Company



Running a Better Business Series



Trimble
Construction

Finance leaders, you have one of the toughest jobs in the construction industry—keeping the doors to your business open and the company's bottom line in the black at all times.

It is a daily struggle, especially in an industry notorious for its already razor-thin profit margins, productivity and material waste challenges, costly conflicts, potential litigation and expensive capital assets like labor, equipment and materials to manage.



The past two decades have shown us that business disruptions—whether financial crises, natural disasters, data breaches, global pandemics or others—are becoming the norm rather than the exception.

If your company isn't scaling now to meet current and future needs to ensure long-term business continuity, you may be stacking the deck against yourself.



Take the Quiz.

Check each of the following challenges you have had over the past 24 months:

- ☐ Had a project run over budget and/or beyond the expected timeline without being to get a clear answer on what was driving costs and schedule delays
- ☐ Had trouble pulling together current project data for reports to owners or other project stakeholders
- ☐ Misunderstood or misallocated project costs
- ☐ Had to cover a major, unplanned capital expenditure like replacing a piece of equipment or a server
- ☐ Seen unnecessary material waste or costly project errors that ate into your bottom line
- ☐ Experienced a business disruption that forced you/your company to have to cut costs in areas to keep your business running effectively
- ☐ Had a communication breakdown between project teams or other subcontractors due to a lack of accurate project data
- ☐ Endured a conflict or litigation over work or responsibilities on one of your projects
- ☐ Struggled with billing to keep cash flow fluid and/or ensuring your own bills are paid on time
- ☐ Lost money on a project that wound up not being worth the hassle

If you've experienced two or more from the list above, think about modernizing your construction software to improve job outcomes.

Not Modernizing Could Cost You More Than You Realize

The world around us is changing—and digitizing—at a rapid pace. Even for contractors that want to move forward with digital and data transformations, there have been roadblocks. According to a recent [JBKnowledge Construction Technology Report](#), lack of staff to support new technology listed as number one limiting factor (38.2%) to tech adoption, while employee hesitation to change was listed as number two (35.9%).

If your company has yet to make the move, you could soon find it harder to meet modern project demands and compete with more digitized, data-driven contractors.

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50%+ of contractors that moved to the cloud cited the ability to access data in real time from virtually anywhere.



5 Key Reasons Why it Makes Sense to Modernize Today

(and 25 stats you should know)



1. You Need to be Operating in Real Time

- Let's face it, manual processes and disconnected data just aren't going to cut it anymore in today's highly-digitized business environment. Waiting days, weeks, sometimes even months for the latest data on your projects' financial health can significantly hamstring your ability to provide a clear picture of how well your business is doing.

Furthermore, having data flowing into the back office from multiple disconnected software systems is likely further straining your accounting and financial management teams. They have to spend hours reentering and reconciling the data into a singular source of truth for reporting purposes, and run the risk of erroneous or missing information skewing your true results.

2.5 Quintillion Bytes

Humans create 2.5 quintillion bytes of data every day, and 90% of the world's entire data was created within the past two to three years.¹

94% Cloud-Based by 2021

By 2021, 94% of all workloads will be run in some form of cloud environment.²

1. Cont.



Moving the cloud with an integrated, multi-faceted construction management suite of solutions not only provides you an instant, accurate look at the data your projects are producing, but extends that ability beyond your desk to your entire project teams, helping them do their jobs better as well.

70% Want Better Data Access

In construction, more than 70 percent of contractors that moved to the cloud listed the ability to access and work with real-time data from anywhere as one of their top priorities.³

82% Seek Collaboration

82% of owners feel they need more collaboration with their contractors.⁴

80%+ Using Mobile Devices

82% of general and heavy highway contractors and 72% of specialty contractors are using mobile devices and/or web applications to collect jobsite data from the field.³

2. Protect Your Business with Real Crisis Control Measures

The COVID-19 pandemic impacted virtually every contractor in some way, and in your role as a financial leader, you likely had to react quickly to implement technologies and processes to allow employees to work from home, take steps to limit project delays or stalled payments and other measures. Think about how much easier these challenges would have been to handle if you had a connected, cloud-based technology platform already in place.

12% Saw Data Breaches

Nearly 12% of contractors have reported a data security breach in the past 12 months.⁶

Only 62% Have a Crisis Plan

62% of companies (in all sectors) have crisis management plans, though few companies practice them and it's unclear how many companies actively update those plans.⁵

2. Cont.

- Business disruptions—whether momentary or long-lasting—are here to stay. We've all heard the stories of a retailer, city government or, yes, even contractor, hit with a crippling data security breach that cost them tens or hundreds of thousands of dollars to correct. We've
- seen the devastation that natural disasters can cause to companies that didn't have their data properly backed up.
- You know how sudden economic downturns can hit and how much harder they are to survive without scaled plans for such events.

Moving to the cloud brings you the flexibility needed to address business disruptions and crises head on. Hosting your data with a cloud provider provides redundancy through automatic data backups so that when—not if—the next disruption occurs, your organization can still work effectively. Cloud vendors also provide the latest data security measures that on-premise software cannot without constant attention by dedicated (and costly) in-house or third-party IT resources.

Attacks up 148%

Data security attacks like ransomware are up 148% since the COVID-19 pandemic in early 2020, but fewer of those attacks are successful thanks to heightened data security technologies.⁷

6+ Months for Return to Normal

Amid the COVID-19 pandemic, 30% of contractors surveyed by the Associated General Contractors (AGC) in June 2020 said they didn't expect their business to return to normal for an additional six months or more.⁸

Only 6% Survive

Multi-sector studies suggest that only 43% of companies with a major data loss reopen¹, and only 6% survive more than two years.⁹

3. Eliminate Costly Barriers to Improving Profit Margins

As a financial professional, identifying cost savings and efficiencies is part of your job. Oftentimes though, cutting costs is a reactionary task. You've likely had a renewed focus on this during recent business disruptions, and while many of the steps you've recently taken are very likely in the best interest of your company, cutting costs should never be a one-off practice. Continually look for efficiencies through innovation.

1% or Less Tech Spend

Nearly 50% of construction companies spend 1% or less on technology annually, and nearly 60% of construction companies are not investing in any new technologies.⁶

50%+ With In-House IT

More than 50% of contractors have a dedicated IT department. But 30% of contractors outsource part of their IT responsibilities and 20% outsource all IT duties.⁶

3. Cont.

- Though implementing new technologies can seem
- like a daunting capital investment, the truth is, they can often save you money in other areas. Moving to a
- cloud-based, integrated software suite, for instance, can free your company from costly overhead like
- management and maintenance of servers, third-party IT resources or data backups, paper-based costs and
- managing multiple software vendor contracts.

Implementing modern processes and technologies can also significantly boost productivity, better spot potential costly errors or issues to get ahead of them, bill and get paid faster, maximize value for equipment usage, better control jobsite waste and free up staff time and reduce labor overhead costs — all of which increase profit margin.

18k Hours/Year Wasted

The average construction employee wastes 90 minutes each day simply looking for information in a non-digitized construction environment, or 18,000 labor hours per year for a company with 50 employees.¹⁰

\$1T in Savings Possible

Within 10 years, full-scale digitization could lead to savings between \$0.7-\$1.2 trillion (13-21%) in the Design & Engineering and Construction phases and \$0.3-0.5 trillion (10-17%) in the Operations phase.¹¹

10X Equipment Costs

Running a piece of construction equipment to the point of failure could cost 10 times as much as a regular maintenance program would; and predictive maintenance could save 8% to 12% in additional costs over preventative maintenance.¹²

4. Automate Workflows with a Truly Connected Software Suite

Moving to the cloud is just one part of your digital and data transformation. To best position your company for future success, you need one unified system of record—designed specifically for construction—to work from. Why is having a single source of truth so important?

Think about the countless hours your organization spends trying to reconcile data between multiple, disparate software systems, and the delays this can cause for your projects or reporting.

\$1.6T in Gained Productivity

As much as \$1.63 trillion could be saved annually from infrastructure productivity changes.¹⁵

2.2 Billion Tons of Waste

The volume of annual construction waste is expected to double by 2025 to nearly 2.2 billion tons worldwide.¹⁶



4. Cont.

- Even if these systems are all in the cloud, odds are they don't share the same data sets. Or, if they are integrated, they're dependent on unreliable APIs and other connectors that need constant updating. Missing or erroneous data collected between different systems or processes, and lack of clear and concise information audit trails can lead to costly delays, rework, conflicts and litigation.
- A seamless data flow across all facets of your projects is vital to boosting productivity and accuracy. And, streamlined workflows mean your company is much better prepared to change on the fly when you need to — like adopting new health and safety procedures in the midst of a pandemic for instance.

If your current processes still involve paper, remember that in the 'new construction normal,' many employees are less willing to handle and share paper forms. Digital workflows and real-time data collection are no longer the wave of the future. They are the here and now.

Only 11% Efficiency

Only 11% of contractors consider jobsites to be very efficient.¹³

30% Rework

Approx. 30% of the work performed by construction companies is actually rework.¹⁴

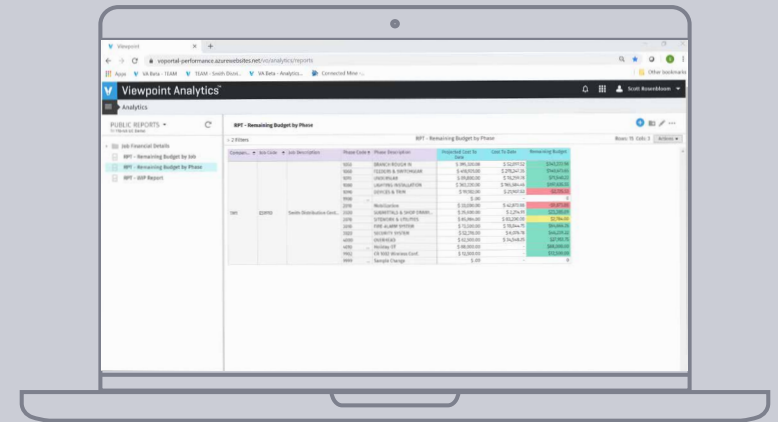
\$33M per Average Dispute

The global average value of construction disputes in 2018 was \$33 million and the average length to resolve disputes was 17 months; the costliest handled was a \$2 billion dispute.¹⁷

5. Become a Data-Driven Contractor

Your construction projects produce mountains of data—but how well are you really using that data? Sure, there's your standard industry reports like job costs, WIP, progress, labor costs and more, and you're probably doing an ok job of pulling these figures when you need them. But are they really timely?

Is your data accessible enough to give anyone not in IT or with technical report writing capabilities the chance to solve problems on their own? Can a project manager easily get real-time insight into how your projects are actually faring? How detailed is your analysis of project data? Do you have the proper amount of time and resources to dedicate to these crucial projects?



64% Data Improvement

64% of contractors reported improvements in their ability to gather and analyze data in the past several years thanks to improved technology.³

12% of Cloud Moves Driven by Analytics

12% of contractors listed ability to run advanced data analytics as a top reason for moving to the cloud.³

5. Cont.

- With a connected, cloud-based suite of solutions comes the ability
- to truly transform your approach to construction data. Closely
- analyze those key metrics like productivity, job progress, profit fade
- in real time, and quickly make actionable decisions to adjust project
- workflows as they're happening rather than enduring costly rework.
- Identify key trends and use data to identify issues before they occur
- and further streamline how work is done. Better understand how
- your projects compare with industry-wide benchmarks, and set
- internal benchmarks of your own. Use modern predictive modeling
- and analysis to project how future projects might fare—and
- understand which projects are worth taking on, and which aren't.

Sound like a lot more work?

Actually these modern technology tools make it dramatically easier for you by processing in mere minutes what is taking you long hours, nights and weekends to complete on your own now. They also expand the power of data possibilities for your organization. Visualize data in virtually any format you want, deploy the latest data science capabilities with ease and begin looking at new data to help shape the narrative of your company's business success.

96% of Current Data Unused

96% of all data captured goes unused in the Engineering and Construction industry.¹⁸

55% Want Predictive Data

More than half of contractors (55%) surveyed are looking at data in predictive models, leveraging information to help them better understand when and where future events or triggers will occur and how to better plan for them.³

21% Using Predictive Analytics

21% of contractors are already using some form of predictive analytics to help improve their ability to forecast future work.³

Ready to Modernize? Then You're Ready for Trimble Construction One

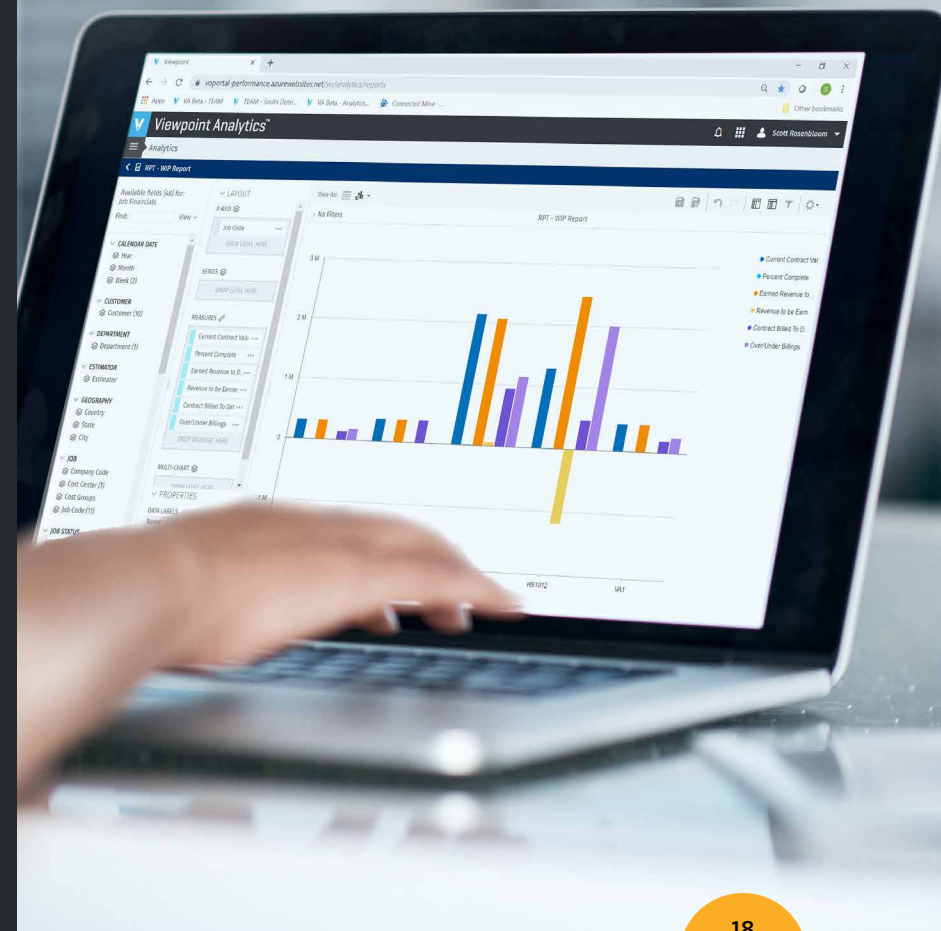
Now that you're ready to become a modern, data-driven contractor, you should look for a technology partner you can trust will work with you every step of the way and is just committed to your success as you are. Viewpoint, a Trimble company has been on the forefront of leading technologies for more than 40 years. **Trimble Construction One** is a connected suite of cloud-based construction solutions that meets the demands of today's modern contractors.



Unlike software that solves a single need for customers or compels them to work within the restraints of a larger, out-of-the-box ERP solution, Trimble Construction One helps contractors Plan, Do and Manage across their entire organization by providing connected, secure, flexible applications to better manage, scale and future-proof their construction operations.
















Using **Viewpoint Analytics** you can smartly analyze your data in a centralized, secure cloud environment. Let your teams self-serve their own data needs by easily creating custom reports and dashboards, powerful data visualizations and much more with simple drag-and-drop features. Instantly share data analysis with others throughout your organization. Leverage your data analysis into direct action and processes in the field to realize greater productivity and profitability now and for the future.

Click [here](#) to take your own tour of Viewpoint Analytics!



Yes, your digital and data transformation is an investment.

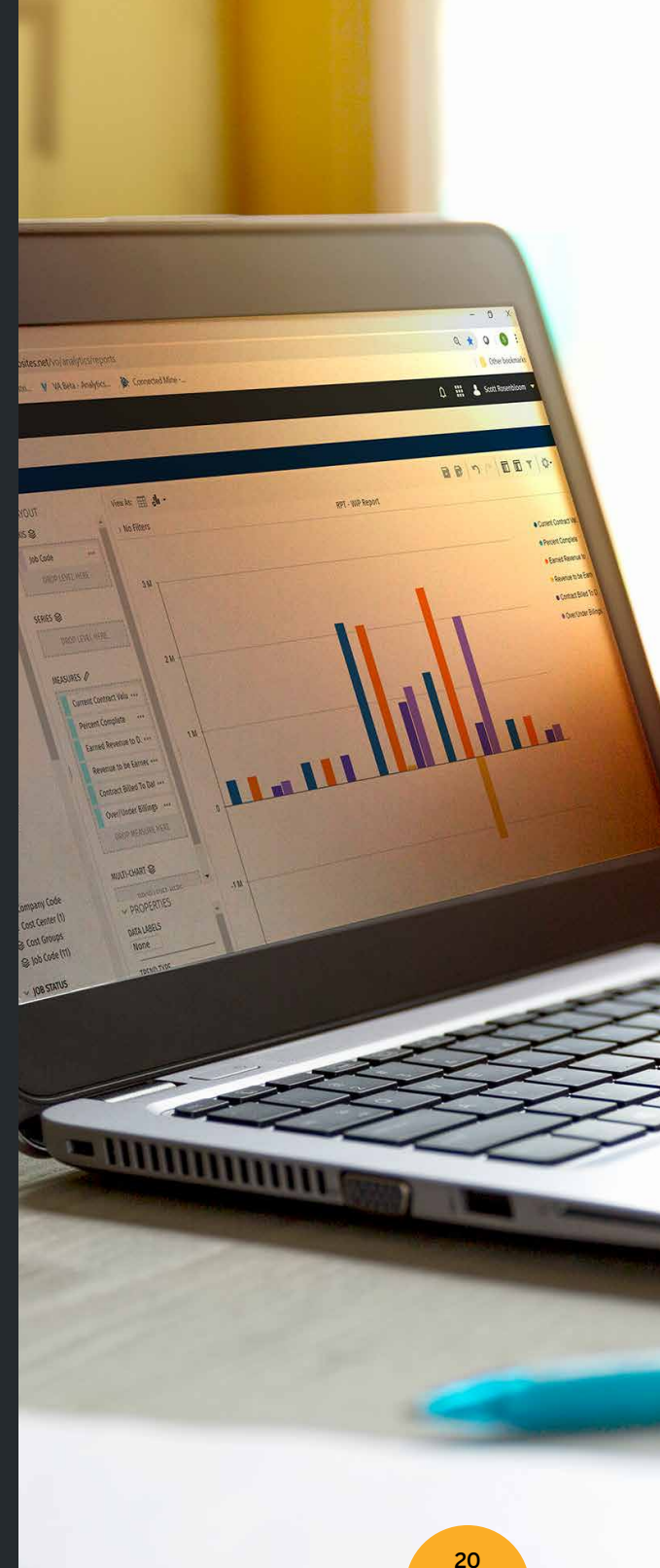
So how does Trimble Construction One stack up to other construction management software solutions? When you start to add up all the hidden costs to patch together those standalone systems to meet your business needs, you might be surprised.

Trimble Construction One™		Other Software Solutions
With the Trimble Construction One suite of integrated, cloud-based construction solutions:		With multiple, separate construction and business management software packages:
 Included	Back-Office ERP; and	
Included	Project Management Solution; and	 
Included	Mobile Field Data Management Solution; and	 
Included	HR Management Solution; and	  
Not Required	Fees for Custom Software Integrations, Reporting and APIs	   
 TOTAL COSTS		

Maintaining disconnected software solutions could be costing you 3X the amount of money as Trimble Construction One! So, as a construction financial professional, doesn't it make sense to modernize the right way?

Sources

1. How Much Data Do We Create Every Day? *Forbes*
2. Cisco Says Almost all Workloads will be Cloud Based Within 3 Years. *Network World*
3. Improving Performance with Project Data. *Dodge Data & Analytics and Viewpoint*
4. KPMG Global Construction Survey
5. CS&A International
6. JBKnowledge Construction Technology Report
7. VMWare Carbon Black
8. AGC Coronavirus Survey
9. Data Center Knowledge "Disaster Recovery is Not Business Continuity and Homeland Security News Wire
10. How Much Time Wasted Looking for Stuff Costs Your Construction Company —For ConstructionPros
11. World Economic Forum's Shaping the Future of Construction
12. Buildings.com - 2018 and Reliable Plant/U.S. Department of Energy
13. Commercial Construction Index
14. MCSER
15. McKinsey Global Institute - Infrastructure Productivity: How to save \$1 trillion a year
16. Construction Dive
17. Global Construction Disputes Report. *Arcadis*
18. FMI - Big Data = Big Questions for the Engineering and Construction Industry





ABOUT TRIMBLE VIEWPOINT

Trimble Viewpoint construction software solutions, part of Trimble Connected Construction, allow contractors to better manage their projects, processes and people, using the data gathered to lower risk and improve margins. With more than 40 percent of the ENR 400 on our platforms, Trimble Viewpoint innovations are transforming the construction industry by connecting operations across financial and HR systems, project management tools and mobile field solutions.

For more information, visit: www.viewpoint.com.

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