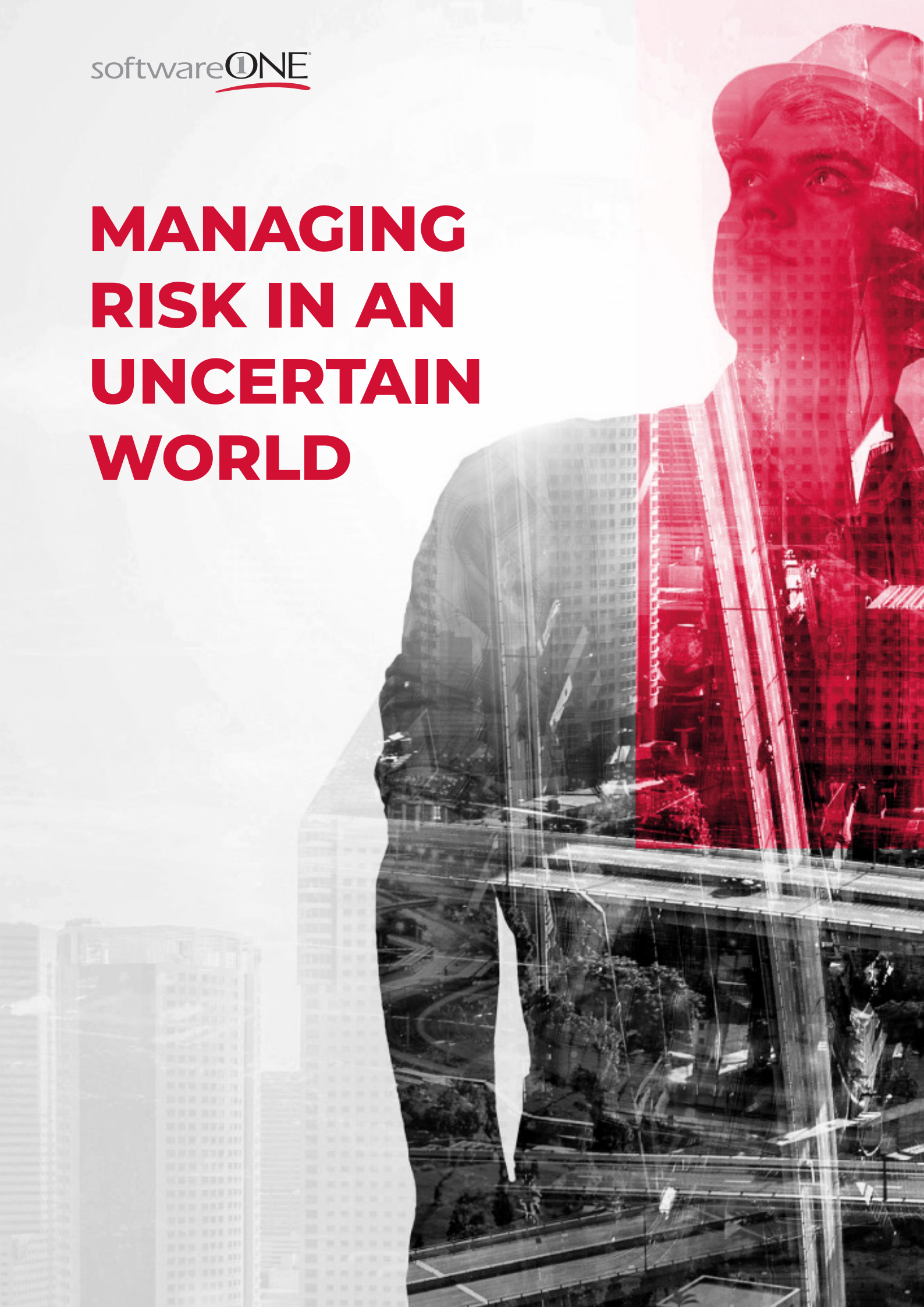


MANAGING RISK IN AN UNCERTAIN WORLD



INTRO

Construction is a risky business. But while construction businesses have always had to navigate a high level of risk, recent challenges have made matters worse. From a qualified worker shortage to supply chain issues to the rising costs of labor and materials to the physical demands of the job, each new construction project brings with it a new set of issues. This makes risk management a critical skill for every AEC business to have.

When a risk is properly managed the likelihood that the event will occur decreases and if it does occur, the impact on the business is lessened. However, when risk management is not a top priority, projects can be derailed, and a business can find itself struggling to survive. Luckily, many risks can be mitigated with proper planning, good project management, and the right technology. This white paper will take a closer look at common risks construction businesses face and how businesses can better prepare for them.

LAYING A FOUNDATION FOR SUCCESS

Many risks are introduced before a project even begins – issues such as poorly defined scope, incomplete drawings, and bad estimates can create an uphill battle. It is essential to shore up these processes to ensure you are bidding on the right work at the right price. Some projects simply may not be a good fit, and it's important to recognize that as early as possible.

A thorough and efficient preconstruction process is critical to a project's success. Implementing the right technology can play an instrumental role in streamlining preconstruction. Let's take a look at a couple technologies that can have a significant impact on reducing risk before a project breaks ground.

Estimating

Creating quick and accurate estimates is critical to winning work and delivering projects on time and on budget yet estimating has historically been a time consuming and error prone process. Estimating software can automate cost estimating to eliminate calculation errors and scan cost databases to pull the most current material prices to help ensure your estimate factors in current market conditions. Robust estimating software will also feature a database of historical construction project information, providing a detailed benchmark analysis. With estimating software, you can produce more accurate estimates in less time, enabling you to bid on more projects and win more work.

BIM

Estimating software is even more effective when paired with BIM technology. It aids effective planning by connecting your 3D BIM design to project time and cost to facilitate an integrated 5D optimized plan to reduce waste and rework. 5D BIM simulation enables all stakeholders to collaborate in the planning stage and compare 5D simulations side by side to evaluate different time and cost scenarios, forecast cash flow, and detect mistakes early to avoid changes in the construction phase. Plus, you can directly transfer all 5D BIM data from the planning and construction phases to the operations phase so you can securely and efficiently manage and maintain your properties, buildings, and facilities, resulting in more efficient workflows and time and cost savings.

Taking extra care in the preconstruction phase to deliver accurate and timely estimates, detailed plans, and realistic schedules helps get a project started on the right track.

BUILDING RISK ASSESSMENT INTO YOUR WORKFLOWS

Do you know your greatest risks? While it may be impossible to plan for every possible challenge that may arise you should at least be prepared for those that are most likely to affect your business and will have the biggest impact. Here are some steps to get you started.

Identify

Start by identifying your risks. Talk to your teams and make a list of everything you can think of that could possibly go wrong. Plotting out potential risks on a risk matrix, which looks at the likelihood an event will happen and the impact that it would have on a business, is a good way to visualize business risk and plan accordingly.

Prioritize

While risks are everywhere in construction it's important to prioritize those that are most likely to have devastating effects. Plot out your risks on a probability and severity matrix. Those that have a high probability of occurring and a high probability of causing major problems must be prioritized.

Plan

It's always important to have a detailed project plan as well as a contingency plan. Clearly outline a course of action to follow if a certain risk occurs. For example, if supply chain issues are causing major setbacks, consider alternative building materials or different building methods such as prefabrication.

Communicate

Communication is critical. Ensure that all stakeholders are aware of all plans (and contingency plans) and are prepared to act accordingly should a risk occur.

Act Swiftly

Be ready to act with speed and agility when a setback occurs. This can make all the difference in effectively mitigating a risk before it has a devastating effect on a project.

It's important to repeat this exercise regularly as you take on new work or your situation changes. Building risk assessment into project workflows will help you prepare for many of the likely challenges your business will face.



PREDICTING THE UNPREDICTABLE

While you can do your best to anticipate risks that may affect your business, you will undoubtedly face unforeseen challenges. There are many events we don't always see coming such as natural disasters, power outages, and global pandemics. And of course, any number of more likely situations have the potential to throw a project off course, including change orders, cost overruns, schedule delays, and supply chain issues.

While it's impossible to predict the unpredictable, the good news is that you can take steps to better prepare for these challenges and lessen their impact on a project and your business. Focus areas that address common risks include:

Create Detailed Plans

As mentioned previously proper planning can have a great impact on mitigating risk. It is essential to create a detailed plan for each project. And because things don't always go as planned, you always need a backup plan too. This includes contingency plans that address specific risks as well as a business continuity plan in the event of a major disruption. Having a business continuity plan in place for unexpected circumstances can help keep your business up and running in difficult times.

Update Your Contracts

A legal topic that was frequently discussed early in the pandemic was force majeure, a clause that's in almost every contract, which essentially frees both parties from liability when an extraordinary event or circumstances beyond the control of the parties occur. Many businesses updated contract language to ensure pandemics were specifically covered in their contracts. Similarly, businesses could consider addressing foreseeable risks such as supply chain issues in an effort to alleviate some risk and provide more flexibility.

Make Safety & Training Top Priorities

Employees are a company's biggest asset, and no corners should be cut to keep them safe and healthy. This rings especially true in construction where the industry has long suffered from a qualified worker shortage. It is important to prioritize proper training and to maintain safe jobsites. The CDC and OSHA are great places to turn for the latest health and safety guidelines to help keep your teams safe.



TECHNOLOGY TO THE RESCUE

Construction businesses have another important tool at their disposal: technology. Technology has played an integral role in keeping people connected and businesses up and running throughout recent challenges and can also play a vital role in helping your business mitigate risk.

With so many different technologies available to address a wide range of business issues, it can be difficult to know where to begin. A good rule of thumb is to understand your greatest challenges and start there. Have an honest dialogue with your teams and make a list of the most pressing business issues that are opening you up to excessive risk. Is there a technology that can help automate or streamline some of those processes? Technology can help deliver greater mobility, automation, monitoring, collaboration, and safety, all of which can help contribute to lower business risk.

Mobility – Having anytime anywhere access to business-critical data helps ensure teams are always relying on the most current data when making decisions. Mobile and cloud technologies keep teams in sync, help increase efficiency, and allow stakeholders to keep tabs on projects in real-time.

Automation – Automating manual processes, which can be time-consuming and error-prone, helps teams save time and avoid costly errors. Plus, when using connected solutions any time variables such as material costs or labor hours are affected and updated in one system, they are updated everywhere, and allow you to automatically project out the impact the changes will have on your budget.

Monitoring – Dashboards and automated alerts are two helpful risk management tools. Dashboards can provide role-based views of the most important information, so you always know where you stand on any given project and automated alerts can immediately notify the right people when certain conditions are met or a specific situation occurs, so they can act quickly to mitigate business impact.

Collaboration – There are a lot of people involved in a construction project, including owners, builders, subcontractors, and suppliers. Managing all of these stakeholders and ensuring they have what they need to complete their work on time and within budget is essential to delivering a successful project. Technology can help foster increased collaboration so that everyone has the information they need when they need it, and can track critical areas such as upcoming deadlines, contracts, and compliance.

Safety – Advancements in technologies such as augmented reality (AR) and virtual reality (VR) allow for effective (and safe) jobsite training, while the smart sensors that come with wearables and the Internet of things (IoT) can provide further safety measures.



THE PITFALLS OF POINT SOLUTIONS

When selecting the right technology for your business, it's important to keep in mind that not all technology is created equal. Point solutions are often touted as a great way to address specific business needs. You can just add more point solutions as your needs change and you'll have all your bases covered, right? Wrong. Unfortunately, point solutions often create more problems than they solve. Here are some of the most common pitfalls of point solutions:

Lack of Integration – Point solutions often leave you with disparate systems that don't talk to each other, so if you enter data in one system it isn't updated across your technology solutions. This leads to double (or triple or more!) data entry, opening your business up to more costly errors and increased risk.

Data Silos – When your systems aren't integrated, you don't have a full picture of your business – you're left with pieces of the puzzle that are scattered in different systems. This leaves you struggling to extract and connect data from multiple systems, making it difficult to identify risks and make informed business decisions.

Stagnant Productivity – When data is siloed in separate systems, a lot of time is wasted transferring this data between the different systems. This lack of digitalization hinders not only the efficiency of individual team members, but it can slow down an entire project. This is one of the key reasons that productivity in the AEC space has remained stagnant even though technology adoption has increased.

Hidden Costs – While point solutions require lower upfront costs their total cost of ownership is much higher once you factor in hidden costs. Many will appeal to customers with their low licensing fees, but you have to add the additional cost of implementation and training. Plus, as your business needs change, you'll have to keep adding on point solution after point solution. And that's not even taking into account all of the time (and money) lost by having to re-enter data.

Point solutions can seem like easy fixes in the short-term but they don't have the power to support a company's growth.



DISCOVER THE BENEFITS OF AN INTEGRATED CLOUD PLATFORM

Fortunately, there's a better way. Integrated cloud platforms connect all project stakeholders, processes, and data in one integrated platform, delivering full project control, cost transparency, real-time intelligent data, and unparalleled collaboration and efficiency. The industry is beginning to catch on to these advantages. A recent Deloitte study found that 76% of E&C decision-makers are putting more money into connected technologies (and the connected data that comes with them) to increase productivity and help manage productivity erosion risk. Let's take a closer look at some of the top benefits of cloud platforms:

Streamlined Workflows

With a cloud platform, you can create custom workflows at the project or enterprise level to ensure your teams are on the same page. Plus, automated, customizable alerts can take the guesswork out of when each task is to be completed, while intuitive and robust dashboards mean you always know where you stand on a project.

Actionable Data

A cloud platform can effectively store and refine your data throughout the project lifecycle so you can learn from past projects to establish better processes for future workflows. And with real time access to information, you always have a single version of the truth to help turn your data into actionable insights and minimize risk.

Document Management

Top cloud platforms can automatically categorize files into project level, making it easy to find the documents you need, when you need them. They can provide one central location for all stakeholders to manage and share forms and documents across the entire asset lifecycle, ensuring a well-documented paper trail.

Stakeholder Management

A cloud platform encourages greater collaboration and helps ensure all stakeholders are engaged throughout a project. It also allows you to keep track of project contracts and execution performance of every business partner, to help ensure you're maintaining good business partnerships. You can also create customized evaluation reports for future project reference.

Flexibility and Scalability

Cloud platforms are highly configurable so you can address your individual business needs and adjust as your needs change. You can easily add (or subtract) users and modules as needed. You can also set up role-based views so system administrators can determine the level of access each project stakeholder needs, from full access to only viewing rights on relevant projects. Plus, you can easily grant or retract a user's view of any module or layer of the platform, at any time.

Connected cloud platforms provide both short-term gains and long-term benefits. A connected cloud platform will not only help you mitigate business risk today, but it is also a solid investment for sustainable long-term growth.





SoftwareONE is a leading global technology provider. It empowers AEC firms to digitally transform their businesses with MTWO -- the world's first 5D BIM construction cloud platform. MTWO connects all project stakeholders, processes, and data in one integrated platform and addresses every phase of the building lifecycle. The robust solution is highly configurable with 100+ modules that address every phase of the building lifecycle and an open API that seamlessly integrates with other business critical solutions, providing unparalleled collaboration and efficiency and boosting productivity up to 30%. MTWO empowers AEC firms to digitally transform their business while winning work, increasing efficiencies, mitigating risk, and reducing their environmental impact.

Learn more about how MTWO can help you build faster, smarter, and better.



Lets Connect

Get in touch to find out more about
MTWO Construction Cloud

MTWO@SOFTWAREONE.COM
WWW.SOFTWAREONE.COM/CONSTRUCTION