

WHITEPAPER

THE 7 INDUSTRY TRENDS

THAT WILL HELP CONSTRUCTION
BUILD BACK STRONGER



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CHANGING TIMES FOR CONSTRUCTION

Construction is a high-cost, high-risk, long-term activity, and its performance is a clear indicator of the health of the overall economy. If the economy falters, construction slows down and, under extreme circumstances, it may even come to a screeching halt.

Yet, the industry came together during a difficult time and became an inspiration for many. From building hospitals at very short notice to keeping sites open under strict measures, the industry played a critical role in both tackling the crisis and leading the economy on the road to recovery. However, one thing became quite clear during these hard months – businesses need to be flexible to improve performance and increase productivity in addition to being sustainable. Now is the time for resilience, reimagination and reform. It's time to build back stronger.

From adopting digitisation, through vertical integration to sustainable building, in this whitepaper we talk about the short- and long-term trends that will help your construction business build back stronger. Read on and see how you can increase productivity, improve efficiency and maximise margins in the 'new normal'.

TREND 1.

Short-term – Focus on digitisation

This year is the year of new beginnings, hope and data-driven decisive actions. As vaccines are offering hopes for recovery, businesses are developing strategies to build back stronger. But the new normal will be different. Businesses can't simply go back to their old ways and expect the conditions that prevailed in pre-COVID-19 times. Those who adjust to this new reality fastest will gain a competitive advantage.

WAS DISRUPTION COMING ANYWAY?

Experts say the construction industry has been ready for disruption for a few years now. A range of factors indicate that the industry must consider new approaches in order to automate processes and achieve better productivity. Availability of new materials, increasingly strict sustainability requirements, limited labour due to Brexit and the shift to modular building all call for change that drives construction to look for innovative solutions.

As Microsoft CEO Satya Nadella pointed out in April 2020, 'we've seen two years' worth of digital transformation in two months'. Historically, strong businesses coming out of crises bounce back stronger. Meanwhile, the weak feel the amplified consequences of challenging times, become weaker and often go under. The outcome is dependent on how resilient a business is and its ability is to absorb shocks and recover.

One thing is clear - coming out of a crisis, construction companies need accurate and up-to-date reports more than ever so they can make informed decisions regarding the future of their operations. This is the key to carefully control costs, review predicted margins and forecast short to mid- and long-term financial risks as a result of COVID-19.

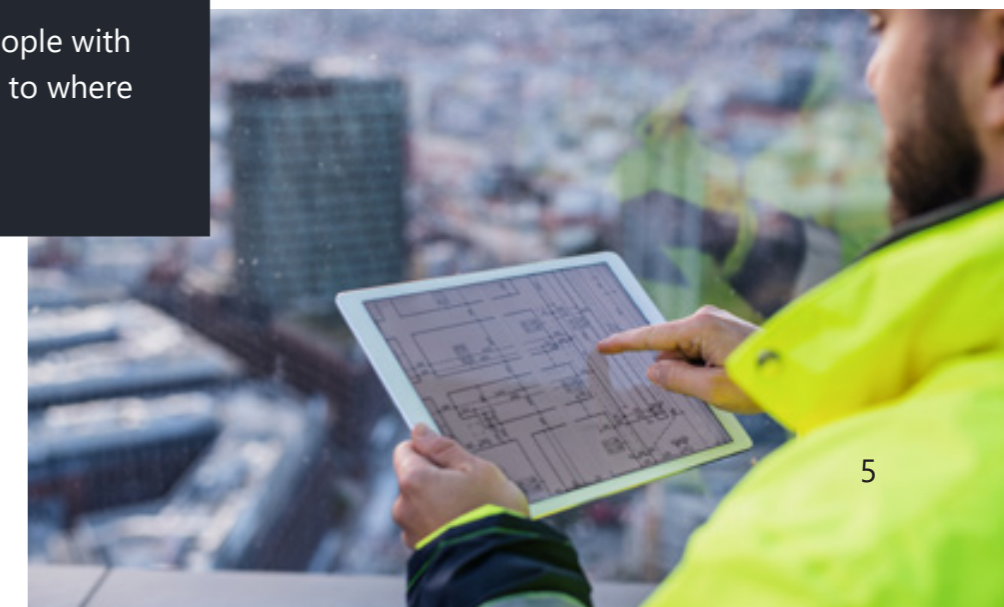
These are important in everyday operations, but even more so in times of uncertainty, when stopping operations means violating contractual obligations and risking penalties for project delays. Business leaders must be able to trust and rely on a single version of the truth that involves input from all departments across the business. Only through powerful insights into business data, finances and efficiency can construction businesses build back stronger.

A SINGLE SYSTEM FOR ALL YOUR BUSINESS PROCESSES

Companies that have introduced end-to-end business management solutions and have set up their software in the cloud are already experiencing the benefits of flexibility. Not only do they use a single integrated system with a single source of truth, but they can also access it from anywhere and at any time. From an infrastructure standpoint, not much changed for them during the pandemic. They were able to access their documents and data on any device in any location when they needed them. It's modernisation of this nature that allows construction businesses to adapt quickly in difficult times.

For those without a solution in the cloud, work is a lot more difficult. How do you ensure that all data is kept up to date? How do you provide operational users with access to the documents and information they need? And, more importantly, can you trust the data you base your decisions on?

That's why it makes sense to choose an ERP system that supports such applications, providing your people with full visibility and fewer limits as to where they can get work done.



MAKE THE RIGHT DECISIONS WITH ACCURATE REPORTS

Construction companies cannot afford to prepare and produce project reports in a reactive manner. Today, data-driven decision-making using technology is necessary to identify warning signs early, analyse the situation, identify the best way to tackle it and perform corrective actions. The alternative is like driving at night without headlights.

Daily reports in construction are a must. They indicate which activities have been completed, which have been delayed and help identify the best actions to overcome any issues. In construction, everything happens very fast and often at the same time.

Cost to complete reports are not new, but, unfortunately, they're generated manually all too often. It's a time-consuming activity, meaning the report is often out of date by the time it's submitted to business leaders. If accurate, they show the amount spent to the current stage of the project and should give a clear idea about the budget needed for labour and materials to fully complete the project.



SOFTWARE TIP

Cost to complete is one of the most important reports for any construction business as it not only includes data from other reports but also allows you to run a reality check on the projected margins at the initiation phase to ensure that your business remains profitable. End-to-end integrated construction solutions offer this functionality so you can make informed decisions for your business.

HOW MUCH CAN YOU SAVE WHEN USING ERP?

We spoke to our customers about how much they saved using ERP and here's their feedback:



A 5% increase in customer retention has been shown to improve profitability by up to 75%.

15%

Reduction in administrative and operational costs

25%

reduction in operating and inventory costs

20%

reduction in administrative and obsolete inventory



Improved efficiency for operational workers



No data transfer



Faster and more cost-effective procurement process



Saving time and effort

TREND 2.

Short-term – Securing and better managing critical materials

The longer and more complicated the supply chain, the more vulnerabilities for construction businesses. When even a single element of the supply chain is affected, the industry sees delays. As a result, construction businesses must appreciate three key factors:

1. That readiness for disruption is essential
2. The gap between developing and developed countries is narrowing through the adoption of IoT, drones and robotics, favouring end-to-end business optimisation
3. Analytics and access to real-time data allow for better forecasting and fact-driven decision making.

NO MATERIALS, NO BUILDING

Materials prices are going up due to longer lead times. At the same time, the increasing demand is making it even more challenging for manufacturers and distributors to build up stock. According to the Department of Business, Energy and Industrial Strategy's Monthly Statistics of Building Materials and Components for April, the cost of materials for repair and maintenance rose 9% between March 2020 and March 2021. Steel, cement and timber have been in high demand, and costs have increased between 17% and 80% respectively over the last 6 to 12 months.

This has a strong negative effect on the financial management in construction companies as many of the materials are bought from overseas. Businesses need to be prepared for a fluctuation in the cost of the construction materials or need to start evaluating the costs and benefits of trading directly with manufacturing companies in the UK. Unfortunately, the cost could be indirectly influenced by import or delivery delays as well.

We know delivery delays happen frequently, and it's common for a project to be put on hold while waiting for the correct materials, but site staff not working is an additional labour cost everyone can do without. Therefore, contractors are advised to keep an up-to-date record of materials availability, accurately plan when they will be needed, build inventory by securing critical materials and long-lead items and create a list of alternative suppliers.



TREND 3.

Long-term – Company consolidations and economy of scale

In order to build back stronger, construction businesses need to show resilience – even in their balance sheets. This leads businesses to look at consolidating so that they can benefit from economies of scale, support investments in IT, headcount, R&D and digitisation. With a highly fragmented contracting market and a great number of competing businesses, it is not surprising that margins remain low. A couple of years ago, consolidation was seen as a risky move and certainly not a necessity in a market where there's plenty of demand. However, conditions are now different, and **the industry is ripe for consolidation.**

BUILDING STRONGER BUSINESSES

The increasing demand for investments in innovation and digitisation will require significantly larger scale than we see today. Standardisation and repeatability will play a big part, and the industry is expected to see a considerable degree of consolidation, both within the value chain and across it. The larger the business, the easier it is to invest in innovation, implement production improvements and gain a competitive advantage. In order to manage multi-company consolidation performance, it's recommended that you have a full, real-time overview of the entire business and each of its entities.



SOFTWARE TIP

Maintaining a good overview is often achieved through an end-to-end digital solution. Manage your entire finance consolidation process, including currency translation, adjusting journal entries and partial ownership accounting while keeping a clear audit trail. Make decisions based on a single source of the truth.

TREND 4.

Long-term – Better resilience through vertical integration

In the long run, businesses will move to own or manage important activities along the value chain. This will be achieved gradually through vertical integration, strategic partnerships and alliances. As it is in manufacturing, managing the supply of key materials and components will be essential for in-time availability and will offer a sustainable solution to long-lead deliveries and project delays due to stock shortages.

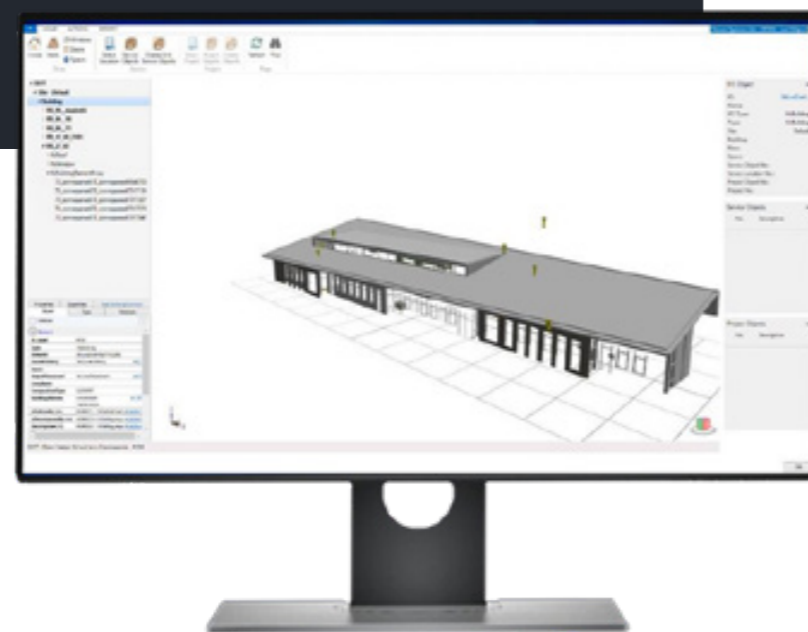
With digital adopted in construction projects, better procurement planning is expected. With BIM models and logistical planning optimised, decision making will be made based on clear data and facts for maximised construction performance. End-to-end construction software enables companies to better control and integrate value and supply chains.



Connect teams for better collaboration and project delivery, on time and within budget

Building Information Modelling (BIM) holds all project-related information in a single place, allowing total collaboration. However, most BIM models sit outside the main ERP solution, leading to inefficiencies and errors. The 4PS Construct integration module uses 4PS information in the BIM Model (IFC file), delivering centralised project data in the cloud.

Through BIM, you can optimise your relationship with all parties involved in a project, collaborating in real-time on multidiscipline models with anyone, any time, from anywhere. BIM allows you to gain complete insight into the progress of any project – from design to completion – with the centralised data file always current and always complete so you are provided with the details and maintenance history of objects. Your projects are available to view by all stakeholders in a consistent format with 4PS BIM Bridge functionality. Everyone uses the same information, so they are kept fully up to date regarding actual project developments.



TREND 5.

Long-term – Automating on-site activities and data interpretation

Whether it is terrain surveying, taking geospatial measurements or other project-specific metrics, construction businesses collect a lot of data through automated on-site activities during projects. Yet few organisations make smart use of this data.

Knowledge is power, and by analysing your data, you draw conclusions that can bring added value to your next project, allowing you to anticipate events and provide a better service. Data is valuable information only if it leads to a specific person at the right time and is communicated in the appropriate form. Only then does it become an insight and an important element of the decision-making process.

THE INTERNET OF THINGS

The Internet of Things (IoT) is a good example of clever data utilisation. IoT refers to machines and devices that communicate with each other via networks. Let's take, for example, a sensor that you place in a measuring rod that can check the underground infrastructure or a drone that maps a large terrain in a fraction of the time it would take a field worker. The data that these sensors collect populates your ERP system via the network to which both your ERP and sensors are connected. Not only does IoT save time and reduce your admin burden, it also creates a large pool of data that you can use to draw conclusions and make forecasts for future projects. If your construction business offers service and maintenance, IoT sensors can be particularly useful in determining planned or preventative maintenance and improving customer relations.



SOFTWARE TIP

What do you need to do to get added value from your data? Choosing the right digital partner is a big decision. Think about what suits your needs best, not just today but in the next few years at the least. It is often recommended to pick a partner who knows your industry, can offer solutions to your challenges and has a clear vision for the future. This partner can provide input on which data is relevant to you and what insights you should aim to gain from it. Make sure you make contact with your software partner early in the process to allow time to investigate how simple or complex it is to create the necessary IoT links.

TREND 6.

Long-term – Modular building and off-site construction

This is a very interesting trend that's becoming increasingly popular. Building off-site, under controlled plant conditions using the same materials while benefiting from standardisation and robotics is time and cost-efficient as well as environmentally friendly.

BUILT TO LAST

There are lots of benefits to modular building. Off-site structures are generally stronger as they are engineered to withstand transportation. When sealed, these modular elements become one integrated floor, wall or roof that is built to last.

STRICTER QUALITY CONTROL

As the engineering process in plant conditions is heavily standardised, construction businesses can easily determine the quantities of materials needed to build each component at every step of the process. This makes securing the right materials at the right time significantly easier. What's more, building components are subject to much stricter quality control and boast minimum material wastage.

FASTER BUILD TIMES

Whether they are relocatable or permanent, modular buildings are 30-50% quicker to complete, are less dependent on weather, and more cost-effective due to the utilisation of robots and lower labour costs.

Create an accurate planning and run your projects efficiently

To ensure your projects run smoothly and deliver the profit you need, the 4PS Construct Planning solution provides you with a range of fully integrated options that give a clear view of the entire process for efficient project preparation. 4PS Graphic Resource Planning is a complete planning tool that supports you with well-organised and efficient planning of resources on projects, including people, subcontractors, service orders or customers.

Simply drag-and-drop orders on our digital planning board to create requests in an instant. Build a personalised, graphical presentation of your resource plans to suit your role. View schedules based on progress, resources, dates, projects, tasks or clients. It's quick to learn and fast to deploy.

TREND 7. Long-term – Sustainable building

The construction industry is often singled out as being wasteful, fragmented and innovation averse. Could this be because the expectations from the construction industry are unrealistically high? Over half of the world's population now lives in cities. Is the demand for housing and the completion of other projects of significant importance too big for the industry to absorb and deliver on? Can construction keep up with urbanisation? Probably. Is there a way to make the construction process more streamlined and efficient? Yes.

ALTERNATIVE MATERIALS

Sustainable construction equates to benefiting from renewable and recyclable materials while using less energy and avoiding wastage during this process. Usage of sustainable materials is an important step forward. For example, the production of concrete is believed to release large amounts of greenhouse gases into the air. Hence, straw bales or bamboo are being adopted as viable alternatives. Introducing heating and lighting controls, better glazing and insulation play a big role too.

BUILDING A MORE SUSTAINABLE FUTURE

The UK government has taken on cutting the Carbon emissions by half by 2025 (compared to 1990) and by 80% by 2050. If we are to meet these goals, we need to build smarter and more sustainably. Nearly 50% of carbon emissions come from construction sites. A few leading businesses have already taken decisive actions related to:

- Renewable energy to replace fossil fuel on sites
- Site cabin electricity to be switched off at night and weekends
- Significant mileage reduction



It can also come down to simple things, such as going paperless or getting materials only when needed to minimise wastage and encourage more sustainable transport and travel. A growing number of businesses have adopted the 'new normal' trend of remote working and encourage their employees to travel less.



SOFTWARE TIP

Technology can also offer a helping hand in ensuring the construction industry achieves these ambitious but essential goals. By using one integrated software solution, you have real-time insight into your business processes. It allows you to go paperless while still maintaining an audit trail and controlling project costs and margins. What is more, it enables you to tackle problems with planning and ensure that you always send the closest, most suitable field engineer or operative with the correct materials to the job in order to optimise mileage.



CONCLUSION

The COVID-19 pandemic has changed the world, affecting communities and businesses globally. The last 12 months have been challenging for everyone but even more so for construction. While decisive actions are being taken fast, much remains to be done.

The effects of the global pandemic will be multi-faceted, impossible to ignore and will be looming soon. After the initial shock, the construction industry **resolved** the immediate challenges and became an inspiration for everyone. The industry showed **resilience** and kept going despite virus-related shutdowns, procurement and near-term cash challenges. Now is the time for construction businesses to **reflect** on their vulnerabilities and strategise as to how to achieve better overall visibility of their operations, improve efficiency and **build back stronger**.

ABOUT 4PS CONSTRUCT

[4PS Construct](#) is the end-to-end business management solution tailored for the construction industry and is unique in many ways. With over 20 years of experience in the industry and over 600 ERP implementations, we are passionate about empowering construction business leaders to have better visibility and control over project costs and margins.

By choosing an ERP system designed specifically for construction firms, you can leverage one system to bring all of these processes together. It means you no longer need to jump between solutions or enter duplicate data into multiple applications. With all of your business processes integrated within a single solution, you can save time and boost efficiency.

4PS was voted [Construction Management Software of the Year 2020](#) at the Construction Computing Awards and Construction Software of the Year 2019 by industry experts at the London Construction Awards. This industry endorsement is valuable recognition of the work we do to shape a better future for the construction industry and firmly positions 4PS as a trusted partner that's leading the way to better efficiency in construction.



About the author

Paul Broderick | Paul has developed a keen eye for seeing specific customer requirements and recommending solutions to deliver business benefits and returns-on-investment. In the last three years Paul has focused this experience and knowledge specifically on the Construction industry, where digitisation is now the hot topic in IT, which has evolved and matured to become most relevant in today's construction industry.

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