



White Paper

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Digitalisation Demystified: Five Tangible Benefits for Construction

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Executive Summary

If you want to delay the impact of a highly beneficial technology to an industry, then use language to describe it that leaves everyone thinking; “What the Hell are they going on about?”.

This is the effect that “Digitalisation” has on Construction. It is often used as an abstract term, and is one which pushes people away as opposed to drawing them in. In fact, I feel confident in saying that in some construction companies, “Digitalisation” is somewhat becoming the “Emperor’s New Clothes” in Boardrooms. CXO’s recognise the groundswell of interest in the area, but the term is so loosely



defined and carelessly banded about by suppliers and contractors alike that it is often misunderstood, and can be misrepresentative of the very real and tangible benefits it can deliver.

So I want to try and help and provide some practical examples of where Digitalisation will have a huge impact in the Construction Industry.

First, Why is Construction slow to Digitalise?

There are a multitude of reasons why there has been a systemic aversion to the adoption of Digitalisation technologies in Construction and I have covered them in much detail in previous Whitepapers. However, the key inhibitors relate to people and organisation.

Before diving into these two problems, we first must cover off the building eco-system. Each build project is unique and complex, bringing together construction workers from multiple companies in a temporary and potentially dangerous environment. So this means lots

of things going on at once, a multitude of challenges on a daily basis and all in a noisy environment, which can make it difficult to communicate with workers.

They are busy places and consequently, no one has the time nor the inclination to do that “stitch in time” thing and map processes to people and technology, something so readily achievable in an Office environment.



So with this context shared, let's dive into these inhibitors:

- 1. Organisation:** for a variety of commercial and practical reasons, Construction are really a series of mini "Project" Companies, each afforded autonomy and managed according to their own P&L. This means that the decision-making tends to be more local than Central. This is all well and good from a "control" perspective, but not so good for making Digitalisation investments as this requires collective consideration and consensus – something difficult to achieve across a series of strong-headed project leaders. On top of this, each project brings together a new team of workers, drawn from a variety of sub-contracting Companies all working to different policies and standards.
- 2. People:** As an expert in technology, I would have no idea what to do with a jack-hammer or how to plaster a wall or lay a concrete base, with me not being from the Construction world. I also think that

it would be reasonable to assume if someone just dropped the tools on me and asked me to do any of these things, I would look at them bamboozled and tell them to Foxtrot Oscar. And yet, we expect to dump technology on these exceptionally busy people, often working to a deadline, and expect them to start using it proficiently. This is why many at the sharp end of the construction environment are technophobes; not because the technology doesn't work, but because there is a history of technology being dumped on them. In short, whilst more challenging remotely, site workers need to be engaged in technology decisions and afforded the proper training. This is the only way to ensure they can not only operate the system and drive through the change, but also that they are aware of the tech's full functionality and the benefits that it will bring so they maximise its potential.

So what is Digitalisation

It is the ability to digitally record people, activities and objects (like Plant) on a construction site in real-time and then afford Managers and Supervisors to better manage all of these resources in an optimal fashion, all the while being compliant with best practice safety methods.

It allows Contractors to combine resources in concert through the build process and to adapt and manoeuvre these resources in the most cost efficient manner when problems or delays are encountered.

Perhaps of greater value, especially to larger operators, is the ability to analyse all sites across their business, reviewing the efficiency of build processes across sites, how sub-contractors perform against each other or understanding the safety records of different Trades. In short, digitalisation generates a lot of data which in turn, provides both real-time and post-build insights, insights that should drive better decision-making for improved productivity.

Five Practical, Real-world Examples of Construction Digitalisation



So here are five real-world examples of how digitalisation can drive productivity in the construction industry:

- 1. Digital Identities:** by affording every worker a digital identity, associated with their mobile phone, this means workers can be authorised to digitally authenticate transactions, for example electronics goods receipting, which is a massive problem for true cost management and reconciliation. Or to enable plant usage in a safe, controlled manner, only releasing equipment to certified workers. These opportunities are only possible by having a current and accurate repository of site workers across sub-contractors.
- 2. Task Allocation & Capture:** a key cause of inefficiency in construction is an inability to optimise the alignment and sequencing of tasks between trades during the build phase. Naturally, some processes take longer than anticipated, but the knock-on effects and delays can be disproportionate as a consequence. The ability to understand, in real-time, the progress of activities across workers down to a micro-allocation level coupled with a visual appreciation of progress enables better short-term planning and avoids resources being inactive. This is especially important when things go “off-plan” as they inevitably do.
- 3. Dynamic Snagging:** snagging and defect capture systems already exist, however, they do not have an appreciation of what workers or trades are available onsite to address them. By being able to allocate resources to a problem based on known skills onsite, programme delays are avoided.
- 4. Safety Passports:** with people often working across multiple sites and for only portions of the build programme, the time and inconvenience of repeating safety inductions or having credentials validated can be easily addressed with the introduction of a universal safety passport, something that draws from and compliments existing schemes such as CSCS.
- 5. Direct Comms:** for a company to communicate effectively with its own workforce is a challenge in and of itself. But when you try to communicate with workers spread across a series of sub-contractors across multiple sites, the problem is magnified. One thing that this recent pandemic taught us is that having an ability to reach each and every worker across your company or to target specific trades or sub-contractors is invaluable.

But there is one catalyst to all of these things happening: **engaging the worker**. This requires new thinking and a step-change in both the way in which construction companies interact with their workers through technology and how they keep such interactions as simple and intuitive as possible. It means putting technology into the hands of every worker. After all, they build the bridges, schools, roads and hospitals.



MSite does all of this!

Some construction companies still operate in a world dominated by technology introduced by the Pharaohs (paper and pen!) and a much younger version of Mr Bill Gates (Spreadsheets). Don't get me wrong, new technologies and systems are beginning to break through to sites, but this is limited to tools assisting the PMs or Qs at site.

The workers remain a "technology-free" zone. MSite is a construction workforce productivity platform and is focussed on putting technology into the hands of every worker in order achieve a higher level of engagement and in turn, productivity.

MSite is doing all the things mentioned here. Our Direct-to-Worker strategy is all about understanding, informing and directing the work being conducted on site by every person involved in the build process, deriving better decisions and methods as a consequence. Even the Pharaohs would have built those pyramids a bit faster, a bit safer and with fewer people if they had ditched the papyrus and used MSite.