



CONSTRUCTION PRODUCTIVITY GUIDE

How to improve productivity
on your construction site



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INTRODUCTION

Construction productivity has been flat for decades. Despite being one of the largest industries in the world, its productivity record is lagging behind other industries, growing at just 1% compared with 2.8% for the total world economy and 3.6% for manufacturing. In fact, according to research from McKinsey Global, output from workers is much the same now as it was 20 years ago!

In an economy reliant on the built environment, construction is central to improving the nation's productivity. So, what's holding it back?

Some of the major challenges facing the construction-industry are controlling costs, meeting compliance, e.g. Health and Safety, and managing your workforce to make sure you have enough people with the right skills to get the job done. In an industry with an increasingly challenging shortage of skilled labour, it's even more important to make sure your people are as productive as possible in order to meet the productivity challenge.

Inefficiencies in processes, unplanned costs and an unproductive workforce are extremely common in the construction sector, with more than 90% of the world's infrastructure projects either late or over-budget.¹

HOW YOU'RE KILLING PRODUCTIVITY IN YOUR CONSTRUCTION BUSINESS

-  **30% of construction sites say they waste time looking for tools and equipment**
 -  **On average, six assets are lost every month on construction sites, potentially adding up to a loss of £7,000 a year to your business**
 -  **70% of companies report having at least one failed project in the last year**
 -  **Fewer than 1/3 of all projects are completed on time and on budget**
-

Sound familiar?

The good news is, there are ways to reduce these challenges and even eliminate these hidden costs. In this guide, we look into the easy changes you can make to your business to improve productivity.

¹ <https://www.economist.com/business/2017/08/17/efficiency-eludes-the-construction-industry>

USING MODERN EQUIPMENT



As with technology, power tools are constantly evolving with new features that increase safety and user comfort, as well as productivity and convenience.

The selection of the appropriate construction equipment and tools often affects the required amount of time and effort to complete a project and thus, the job-site productivity of a project.

Tools are revamped to make them lighter, safer and easier on the body, including vibration reducing technology and mechanisms to stop dangerous kick-back with rotary tools.

Using new ergonomic design allows users to ease-up on the grip and use equipment in a safer and more effective way.

New technology on the market is now bringing us tools that have unparalleled speed, comfort, reliability and now even connectivity compared to those manufactured only 10 years ago.

- Have your workers ever needed a tool repaired because they worked it too hard?
- Have you ever wasted time trying to work out answers to questions such as whose tool is this, who used it last or is it still in warranty?

Investing in modern equipment, or even better, a partner who can guarantee you the latest tools, means that your business will never have to suffer downtime due to unreliable tools.

At Hilti, we test all our tools under the same tough conditions of the jobsites you work on daily, influencing our innovation and enabling us to design all of our tools as systems where tools and accessories work hand in hand.

Also, all new and recently repaired Hilti tools are fitted with an NFC tag so they can be picked-up by the [Hilti Connect App](#) which can tell you all sorts of information about your tools including, when it was last serviced, how-to videos and you can even book a repair directly via the app.

How to make the business case for the quality tools that your team needs



With Hilti Fleet Management, we've noticed a fabulous difference in our capabilities onsite... It gives us a lead in the marketplace with our productivity which, in this industry, is vital.

David Brewer, Director, DL Mechanical Ltd



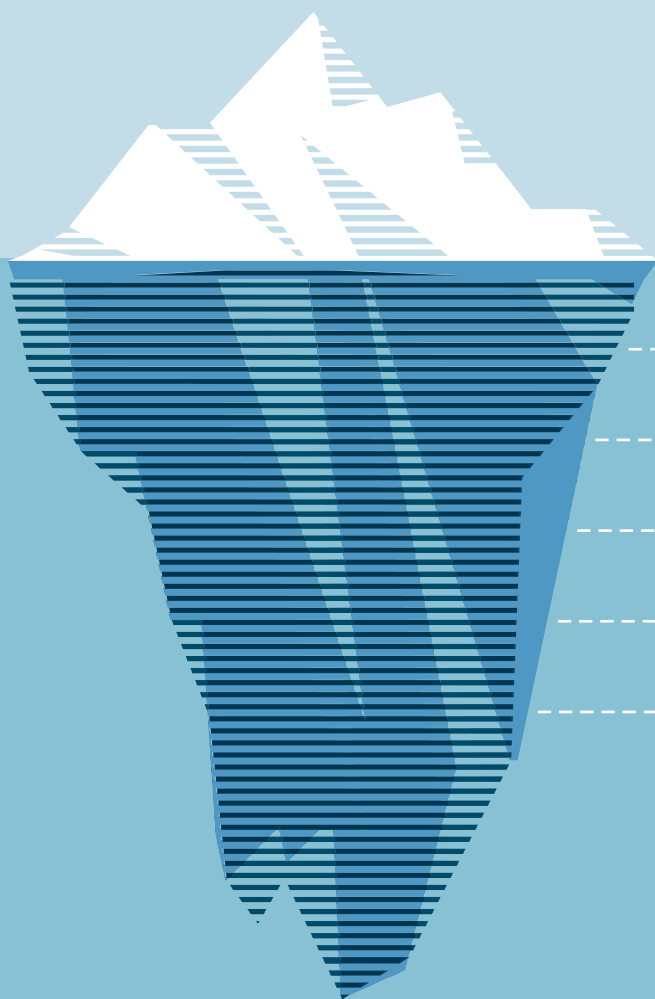
UNDERSTANDING THE REAL COSTS OF YOUR TOOL PARK



Have you ever thought about how much your tools are really costing you? Identifying inefficiency is the first step towards reducing hidden costs.

By bringing transparency into the everyday processes of your business you can understand the hidden issues and develop solutions to eliminate them. This will allow you to complete your projects faster, at a lower cost.

To calculate the total cost of ownership, you'll first need to identify the **direct** and **indirect** costs.



PURCHASE PRICE

REPAIR COSTS

ADMIN COSTS

BATTERY REPLACEMENT

HIRE COSTS

COST OF CAPITAL

THEFT

Next, to understand the full cost of your tool park it's important to consider all factors and processes that can add to the bottom line of the costs of the tools. As well as looking at the up-front cost of purchase, you could factor in repair or delivery charges, as well as identifying any Health & Safety hazards or time wasted waiting for batteries from different platforms to charge, to name just a few.

While this may seem like a time-consuming task, exploring some of the hidden costs lurking in your tool park will help you calculate how much this is costing you over the lifetime of your tools and more importantly how you can address them.

You may find that you:

- Have unsafe or damaged tools that increase the risk of work-related accidents
- Are working without appropriate dust control solutions, increasing the risk of illness
- Have issues with tool tracking (such as inaccurate spreadsheets)
- Have lost or stolen tools
- Have many spare tools or infrequently used tools (most likely purchased last minute to replace missing or broken tools)

From this analysis, you'll be in a better situation to identify the areas in your business you can improve. For example, you may want to think about introducing new technology to remove inaccurate spreadsheets or switch from corded to cordless tools to improve safety and increase productive time on site.

Read why construction companies are no longer using Excel spreadsheets



At Hilti, we have experts ready to carry out this analysis for you to identify any inefficiencies in your business as part of our Productivity Analysis service.

Find out more about our Productivity Analysis service



MANAGING SAFETY AND RISK



The construction sector is set to continue to grow into next year¹, so it can be a highly rewarding industry to work in, however, there are key risks that need to be managed. Whether you're considering practical issues such as health, safety or theft, or broader risks such as the growing skills shortage, it's important to have a plan in place to help mitigate these challenges to your business - all of which can have a big impact on your overall productivity.

In addition to the obvious impact on the injured worker, a poor health and safety record has consequences on several other levels: productivity, statutory regulations and reputational damage to the company.

Issues such as; the absence of the injured worker, interruptions in production processes, re-organisation and/or renewal of work, replacement of damaged material/equipment, loss of orders/clients, administrative effort around accident case analysis, recruitment and additional pay for temporary staff, increased insurance premiums, can all have a negative impact on your company's productivity and financial performance.

WITH 820,000 WORK-RELATED ILL HEALTH CASES A YEAR IN CONSTRUCTION IN THE UK ALONE, ONGOING INVESTMENT IN OCCUPATIONAL HEALTH AND SAFETY (OHS) IS ESSENTIAL TO IMPROVING ONSITE SAFETY.

On top of all that, there are often intangible consequences of poor Health & Safety that affect injured workers, work colleagues and ultimately the company overall. For the victim, there's the personal

impact of the injury but the incident can also have a negative impact on their colleagues such as distress, job dissatisfaction and worry, especially in case of frequent health and safety issues.

For the company involved, these cumulative issues can have a negative impact on reputation and hamper a productive and focussed working culture or environment.

Therefore, it's advisable to have a clear Health & Safety risk Management plan in place and to work with your teams and suppliers to seek opportunities to minimise risk to as low as reasonably possible.

At Hilti, our purpose – to passionately create enthusiastic customers and build a better future - reflects our corporate strategy and is focused on sustainable value creation through leadership and differentiation.

This credo not only runs through our products, services and operations, but also extends to the importance we place on health, safety and the environment (HSE) at Hilti and it reflects the great responsibility we feel towards our employees, customers, partners and suppliers, society and the environment.

Speak to one of our experts about how we can support you to improve Health and Safety onsite



¹ https://www.glenigan.com/market_analysis/construction-industry-forecast

The construction industry is particularly vulnerable to theft because projects are usually carried out in remote locations with untested personnel milling around on site.

To reduce the risk of theft there are lots of sensible things you can do such as adding extra locks on vans, make sure you take your tools out of the van each night, and parking your van in secure parking.

In addition to this, it's important to have a clear record of all equipment and materials owned by your business and increase transparency in the handling of tools and machinery to help bring a sense of accountability for equipment amongst your teams. This will help to encourage them to return their tools at the end of each day - and you can lock them up in a site container or in their vans.

92% OF RESPONDENTS IN THE CONSTRUCTION INDUSTRY HAVE EXPERIENCED THEFT, WITH AS MANY AS 21% CLAIMING THAT THEFT IS A WEEKLY PROBLEM IN THE BUSINESS.

Asset management software or asset tracking is a great solution to reduce the risk of theft since, with the use of tagging and cloud-based software, each item in your business can be assigned to a location and a responsible person. This encourages workers to take more care of their tools, leading to fewer lost or stolen items.

But what happens if theft does occur? Are you covered if tools or equipment, crucial to completing a project on time, go missing? How much will this impact your downtime? How much money will be wasted replacing tools and how much admin time will you spend sourcing the right equipment and getting quotes?

If these questions resonate, it could be time to consider a solution which offers some support or cover in the case of theft.

Many construction companies are facing a shortage of skilled workers, so it's becoming more and more important to improve the productivity of the team you already have.

62% OF CONSTRUCTION COMPANIES REPORTED A LACK OF SKILLED WORKERS IS HOLDING BACK THEIR BUSINESS.²

Highly skilled trades, managers and professional workers across the industry are currently in short supply. One of the main reasons for this is due to the rising age profile of the construction workforce. Many construction workers are retiring, and the rate of retirement looks set to increase as 22% of the workforce are over 50, and 15% are in their 60s.

While fixing the labour shortage in the construction industry is no easy task, your workers cannot be more productive without the right type of skills to do so.

To improve the skills of your already existing workforce, it's important to first have a clear picture of your overall situation, for example what type of training and health and safety certificates your staff currently hold.

Asset management software can help you keep track of employees' certificates and notify you of any gaps in your business. By allocating your teams and assets in a productive way, you can already make great improvements.

² <https://www.telegraph.co.uk/business/2017/11/16/skills-shortage-tightens-around-uk-construction-sector>

EMBRACING DIGITIZATION TO MANAGE YOUR ASSETS



When it comes to increasing productivity, adopting digital technology is the fastest path that brings the biggest payoff.

Even though research shows industries that digitize enjoy increased productivity of up to 1,500%, the construction industry is the second least digitized sector in the world.

A common problem within the construction sector is that very few companies go digital and digitize their assets, equipment or business processes.

While every effort may be put into equipment management, a scenario seen all too often is businesses relying on pencil, paper and spreadsheets - all practices which are prone to costly errors.

Too much time and money is wasted on site due to delays looking for tools and equipment or buying duplicate items. Our research found that on average, companies are spending 90 hours a month searching for assets across construction sites.

Are you still managing your equipment using a patchwork of paper-based systems and spreadsheets?

Doing so eats employee time and puts you at risk of costly errors, which damages productivity and could cost your company a fortune.

To overcome this, it's important to have the ability to measure data on your construction sites and projects, such as where your equipment is, who is using it, how much it's costing you in repairs and maintenance and how well your tools are being utilised. This means you will be more informed on the areas in your business you need to make improvements to increase productivity and save money.

So, what's the solution?

Having the ability to track your tools and other types of equipment, as well as their status at any time is key to improving productivity.

Asset management software in its simplest terms is software that can track assets throughout warehouses, vehicles and job sites, providing you with their location at all times and their compliance status.

This is achieved by using smart tags, which are scanned into an asset management system using a smartphone and App or alternative connected technologies such as NFC (Near Field Communication) or Bluetooth which can offer essential insights in real time. Doing so means it is now possible to log into a system on a handheld device to see the location of each item you need, who is responsible for them and when they were last serviced.

Your employees will no longer need to spend hours tracking items using paper-based systems and phone calls, and there'll be no chance of tools arriving on site from the warehouse in unusable condition.

Asset management software also has the potential to be combined with new technology and methodologies to reduce down time and eliminate waste. For example, Asset management software united with other software solutions such as [BIM will provide you with a highly efficient and profitable platform](#) that can help you optimise the profitability and productivity of your projects.

With the right choice of software and support, asset management software will more than pay for itself by cutting unnecessary costs on physical assets and freeing up staff time for more productive tasks by eliminating delays on site.

HOW HILTI CAN HELP YOU TO IMPROVE YOUR PRODUCTIVITY



All this considered, it can be a bit overwhelming to know where to begin. However, exploring these key ways to improve your jobsite productivity could help you identify areas which could have a big-pay-off in time saved. And the great news is, you don't have to do it on your own.

Our dedicated Productivity Experts can help you identify opportunities to optimise and streamline your tool park and digitalise the way your tools and other assets are managed, in order to keep hidden costs to a minimum and boost overall productivity. We can help you to make changes that will keep your productivity up, and your costs down.

With over 75 years of industry knowledge at Hilti, our Productivity Experts have helped thousands of Hilti customers identify opportunities to optimise and streamline their tool park and digitalise the way their tools and other assets are managed, in order to keep hidden costs to a minimum and boost overall productivity.

**Ready to get started?
Talk to an expert**



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