



# POWERING-UP PRODUCTIVITY







# INCREASE IN CONSTRUCTION PRODUCTIVITY

between 2021-2023

WHEN PRODUCTIVITY DROPS IN A SECTOR WORTH HUNDREDS OF BILLIONS, IT'S EASY TO SEE HOW ECONOMIC GROWTH IS AFFECTED, FILTERING DOWN INTO REALWORLD, ON-SITE DIFFICULTIES.

As management consultant McKinsey noted, there's been "virtually no progress" in construction productivity across Europe in the past decade. However, recent figures may suggest initial signs of improvement. While output alone doesn't confirm productivity gains, Eurostat data reveals that construction productivity increased by 10% between 2021-20234.

It's an encouraging sign, and the sector needs to build on this momentum. To do this, it must identify bottlenecks and adopt quick strategies to empower sustained growth.

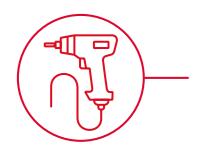
This whitepaper will take a closer look at quick-wins and other enhancements which, when combined, can boost productivity. However, it's first necessary to understand the context.

That's why MILWAUKEE® undertook a Europe-wide study of 3,200 onsite construction professionals, based on independently commissioned research spanning 14 countries.



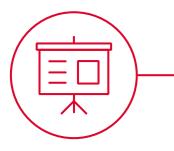


# CONSISTENT OPERATIONAL DISRUPTORS INCLUDED:



#### **POORLY EQUIPPED TEAMS**

The most cited on-site productivity killer was poorly designed or manufactured tools and equipment, flagged by over a third of respondents (37%).



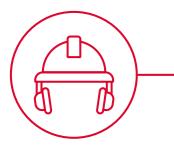
#### **SKILLS DEFICITS**

The chronic skills gap and training shortfall were highlighted as primary obstacles by almost a third (30%). On its own, insufficient education is troubling, but combined with subpartools and equipment, it significantly raises risk.



#### **LACK OF MATERIALS**

Shortage of materials and resources shared the top spot (37%), an indicator that employers must simplify supply chain processes.



#### **UNHEALTHY PRACTICES**

Close to a quarter of participants identified health and safety matters and uncomfortable PPE as key drivers lowering productivity. Moreover, approximately a fifth pointed to the inconvenience of refuelling petrol-operated kit and machinery.

# THESE STRAIGHT-FROM-SITE STATS POINT TO ONE COMMON DENOMINATOR: UNDER-RESOURCED CREWS.

WHEN YOU COMBINE THIS WITH AMBITIOUS TARGETS, LIKE 1.5 MILLION HOMES IN THE UK, AND MAJOR EUROPEAN INFRASTRUCTURE PROJECTS, SUCH AS THE GRAND PARIS EXPRESS, IT'S APPARENT THAT WE NEED TO ADDRESS SOME CORE ISSUES URGENTLY.













LACK OF MATERIALS

**UNHEALTHY PRACTICES** 

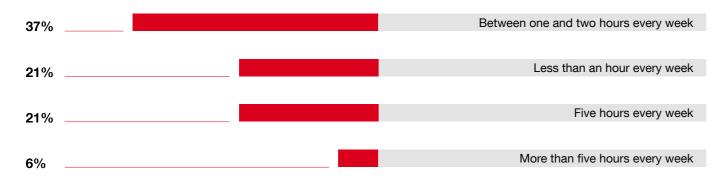


# ARE YOU EQUIPPING YOUR TEAMS TO FAIL?

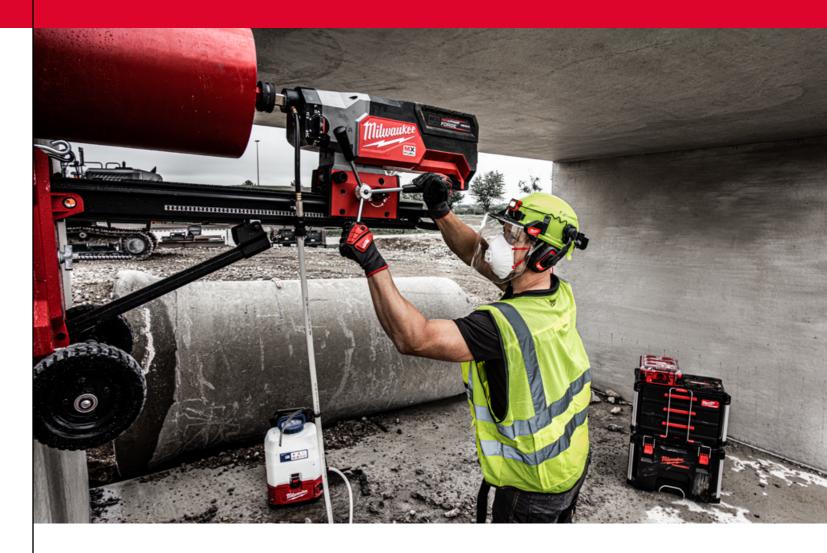
Only 1% of individuals surveyed claimed better tools wouldn't improve their productivity at all, while only 7% believed the impact would be minimal. This underscores the hard-hitting threat below-spec tools and equipment have on the workforce.

What's more, 85% stated they lose time every week due to equipment faults, cut-outs, and breakages. Of these, 21% noted losing less than an hour, while the largest group (37%) reported losing between one and two hours. Another fifth (21%) lost up to five hours, and 6% said that disruptions exceed five hours weekly.

# 85% STATED TIME LOST DUE TO EQUIPMENT FAULTS, CUT-OUTS, AND BREAKAGES



To put this into perspective, consider an SME (Small and Medium-sized Enterprise) with 50 labourers. Even in a best-case scenario, where every worker loses just 30 minutes per day, that equates to 25 hours of lost productivity daily among all personnel. Over the course of a typical 220-working-day year, that's 5,500 hours of interruptions.



Add to that back-office financial pressures – from reduced National Insurance Contribution (NIC) thresholds in the UK to EU labour costs rising by up to 4% (2023) – and wasted capacity has never been more expensive<sup>5</sup>.

Something as simple as improved on-site organisation can reclaim some of those lost 5,500 hours. Consider MILWAUKEE®'s PACKOUT™ modular storage system. Keeping equipment within reach minimises unnecessary trips to vehicles and helps workers stay organised, reducing time spent searching for tools and accessories.

Supplying staff with high-quality, application-appropriate kit is one of the fastest, most effective ways to lift performance. This is particularly true of tools and light equipment that offer higher productivity, greater durability and extended run times, enabling workers to complete applications with ease, faster and more safely. Essentially, it comes down to the workforce feeling supported and equipped to do their jobs. For the 92% calling for higher-quality tools, it's not just about equipment; it's about being valued and taken seriously.



OF EU CONSTRUCTION WORKERS ARE CALLING FOR HIGHER-QUALITY TOOLS

5. eurostat - Annual increase in labour costs



# TACKLING THE ROOT CAUSES OF LOW PRODUCTIVITY

# OTHER CONTRIBUTING FACTORS MUST BE ADDRESSED AT A SYSTEMIC LEVEL, IN PARTICULAR:

#### **TACKLING LOW-SKILL LEVELS**

It's estimated that 1.5 million new hires will be required to fulfil building demand by 2030. Whilst this is no overnight fix, there are short-term solutions which can help mitigate the skills drop-off, starting with better on-site upskilling; particularly around the safe, efficient and effective operation of tools and equipment.

Tool safety and productivity are not separate entities. Safer tools are, more often than not, the more productive solutions, especially when workers are properly trained on them. Take, for example, the M18<sup>™</sup> FORCE LOGIC<sup>™</sup> Strut Shear. Traditionally, cutting strut profiles would require an angle grinder or chopsaw, subjecting the site to sparks and exposed blades. These are tools that require skilled workers with hot work permits, but the strut shear can do the same job in under five seconds; impressively fast. By transitioning to tools which eliminate the demand for hot work permits, the need for authorisation, monitoring and paperwork is removed.

Using MILWAUKEE® proprietary shearing dies, the strut shear delivers square, clean shears without additional filing or deburring. Moreover, the strut shear's dual-die design eliminates exposed blades and reduces the chance of cut and laceration injuries on job sites.

Equally important, worksites must work smarter, not harder.

MILWAUKEE®'s M18 FUEL™ Roll Groover, the industry's first cordless roll groover, does just that by optimising on-site grooving productivity. Its cordless design, swift setup, and exceptional portability allow controllers to work free from the constraints of a cord.





Another great example of where quality, safety and productivity dovetail is the M18 FUEL™ Pipe Threader 11½″ with ONE-KEY™. It is the industry's first cordless pipe threader, revolutionising the pipe threading process. It threads faster than corded competitors, maximising user productivity without compromising thread quality. It also features AUTOSTOP™ technology that senses severe kickback and automatically shuts the tool off. Furthermore, it has a die head lock preventing die head ejection and a side handle to eliminate the need for the user to hold the spinning die head when starting threads.

The MX FUEL™ Pipe Threading Machine 2″ is the industry's first cordless threading machine, designed to make workflow easier. Powered by MX FUEL™ REDLITHIUM™ batteries, it removes the need for a power outlet, so users can set up and work anywhere, going places where other threading machines can't go.

The M18™ Brushless Threaded Rod Cutter has an auto jaw opening, enabling fast, repetitive cuts, while a reverse button helps prevent unintended cuts. The four-sided cutting dies allow the user to cut multiple sizes of threaded rod on one tool, by simply rotating the dies. It delivers clean, burr-free cuts; enabling the user to thread a nut on by hand, without having to file down the ends. The rod cutter features optimised blade geometry and cut speeds; preventing chips and sparks when in use.

Since MILWAUKEE® launched the first ever Band Saw in 1967, it has continued to drive innovation into the category. The M18 FUEL<sup>TM</sup> Deep Cut Band Saws and M18<sup>TM</sup> Compact Band Saw each offer the fastest cutting band saws with the largest capacity in their class. While the addition of the M12<sup>TM</sup> Sub-Compact Band Saw rounds out the widest range of cordless band saws.

The new range of M18™ Rotary Laser Levels from MILWAUKEE® raises the game in laser guided measuring accuracy, with a self-levelling range of +/- 5°, along with long-distance, remote-control capabilities, and full M18™ battery compatibility, providing up to 72 hours of run time.

Whether working indoors or outdoors, there's a MILWAUKEE® application offering all trades the ultimate combination of accuracy, durability and leading-edge technology.

Thoughtfully designed, FORCE LOGIC™ tools are engineered to simplify complicated processes and deliver superior user experiences. Take the M18™ FORCE LOGIC™ Hydraulic Underground Cable Cutter: its compact open jaw and high-speed hydraulic pump deliver the fastest installation-ready cuts. The M18™ FORCE LOGIC™ Hydraulic Knockout Punch can be set up without carrying the tool's full weight, making knockout punches effortless. Meanwhile, the M18™ ONE-KEY™ FORCE LOGIC™ UPONOR™ Q&E hydraulic pipe expanding tool auto-rotates and auto-cycles simplifying the installation process, whilst the M18™ FORCE LOGIC™ Press Tool's in-line design and easy-open jaw maximise efficiency. Simply put, FORCE LOGIC™ delivers the smartest way to work.

These are just a few examples of the many solutions that MILWAUKEE® offers to increase productivity and reduce safety hazards on-site.

#### THE COMPETENCE CONUNDRUM

While better tools can address immediate competence challenges, it will never be a full substitute for inadequate training. Education is a thorny issue, with nearly half of those polled (48%) confirming they had undertaken only 'some training' on how to use tools and equipment and wearing PPE. 42% felt they received plenty of training, but 8% noted they had very little, and 2% reported receiving none.

Further figures indicate a pressing requirement for enhanced equipment training, with almost half (42%) of respondents requesting more guidance on the correct use of tools on site.



RECEIVE INSUFFICENT TRAINING AROUND USING TOOLS, EQUIPMENT AND PPE



# THE FAST TRACK TO EFFICIENCY

# EFFECTIVE WAYS TO KICK PRODUCTIVITY KILLERS TO THE KERB

Channelling investment into premium tools is a smart move. Yet there's no one-size-fits-all approach. Ensuring that tools are specifically designed for each job is just as critical.

When asked what changes could boost efficiency, 54% of respondents suggested lighter, portable and battery-powered tools as key differentiators. This suggests that many tools in use aren't suitable for the jobs in question. By switching to equipment designed for extended use with fewer interruptions, this challenge can be mitigated. For example, M18 FUEL<sup>TM</sup> Duplex Nailer delivers the high performance needed to set nails into wooden formwork at firing rates of up to 4 nails per second. It provides users with a 7X increase in productivity and a drastic reduction in muscle effort compared to driving nails with a hammer.

Switching to tools produced for optimal performance according to specific applications can significantly maximise efficiency and precision. Take MILWAUKEE®'s M12™ and M18™ ranges, which have revolutionised the power tool market by integrating breakthrough advancements in battery technology and cordless design. MILWAUKEE® has transformed manual tools for cable, copper tubing and steel pipe cutting into high-performing, battery-powered alternatives. This includes the M12™ Sub Compact Copper Pipe Cutter, the M12™ Sub Compact PEX Cutter, the M12™ RAPTOR Pipe Cutter Stainless Steel, and the M12™ RAPTORXL Pipe Cutter Stainless Steel.

MILWAUKEE®'s M12 FUEL™ 1/4" Ratchet was the first cordless tool that provided both the torque and compact size to replace pneumatic ratchets in the industry. The M12 FUEL™ ONE-KEY™ 1/2" digital torque wrench delivers 50% faster installation time, replacing the hand tool or two-tool installation process. It also provides more control to reduce the over-torquing of fasteners.

This tool will record all of the fasteners that are saved and produce a downloadable report via ONE-KEY™. Users can then wirelessly connect to a smartphone to customise the tool settings, track its location, manage inventory, and lock the tool for added security and protection.

The M18™ Shear Bolt Tool is the most common installation method in Europe. It is replacing the hand ratchet to connect utility underground power cables with ease. Thanks to its outstanding power with a maximum torque of 100 Nm, it can connect a cable size of 1000 mm² or a connector diameter of 78 mm.

The M12 $^{\text{TM}}$  Sub Compact Rivet Tool is the first cordless solution that delivers fast, easy riveting while maintaining performance, durability, and size. The cordless rivet tool can pull up to 325 x 4.8 mm stainless steel rivets on a single charge with a 2.0 Ah battery pack and reduces muscle effort from a hand tool by over 60%. By removing the need for compressors or hoses during its set up and operation, this tool easily replaces pneumatic products.

Solutions in the M12<sup>™</sup> System are lightweight and designed to fit into tight spaces, and in terms of efficiency, the M12 FUEL<sup>™</sup> Sub-Compact ¼″ Impact Driver can handle 80% of construction site driving tasks without putting unnecessary strain on workers.

#### **ASK THE EXPERTS**

For many, it's time to take a step back, critically assess your site and ask yourself if you're fully leveraging the potential of your operations. Reaching out to specialists for support can help enhance productivity. Companies working with MILWAUKEE® benefit from the advice of the Job Site Solution (JSS) team, who can offer tailored guidance on increasing productivity and efficiency across sites.



# HARNESSING MILWAUKEE®'S EXPERTISE IN DRIVING PRODUCTIVITY IMPROVEMENTS, THE FOLLOWING STEPS OUTLINE A PATH FORWARD:

## INVEST IN SPECIALIST SUPPORT

By investing in tools specifically produced and optimised for the task at hand, worker productivity will rise, and stress levels will drop.

## LESS STRAIN MEANS MORE GAIN

Poorly engineered equipment can impact productivity. Many applications are still completed with sub optimal tools, for example, rail impact wrenches. Often these are unduly cumbersome, creating unnecessary strain on users, leading to potential (yet preventable) injuries. By contrast, the M18 FUEL<sup>TM</sup> 1" Railway Impact Wrench weighs only 6.1 kg, enabling fatigue-free working, and with 2000 Nm of maximum torque it has the power to replace petrol alternatives.

Musculoskeletal disorder (MSD) is a further concern, only exacerbated by non-ergonomic tools. With 3 in 5 workers across the EU highlighting MSD complaints (EU-28 report)<sup>6</sup>, it's a dilemma that can't be ignored.

Evidence-based ergonomic testing ensures MILWAUKEE®'s tools are engineered for prolonged use and maximum user comfort. For instance, the new M18 FUEL™ Overhead Rotary Hammer is designed for productive and comfortable repetitive drilling, incorporating built-in dust extraction and a newly designed handle to promote better posture.

From M12™ and M18™ to MX FUEL™ and OPE, MILWAUKEE®s ranges set a new benchmark for ergonomics, focusing on easing strain and improving comfort to help workers stay productive for longer.

6. Work-related MSDs: prevalence, costs and demographics in the EU



#### **CHARGED UP AND READY TO GO**

Battery-powered equipment, particularly MILWAUKEE®'s MX FUEL™ and REDLITHIUM™ FORGE™, is transforming workflows. With the MX FUEL™ range, there is no specific need to store COSH (hazardous chemicals or substances) or run back and forth between indoor and outdoor tasks. These tools are safe to use inside and ready to go right where you need them.

Additionally, MILWAUKEE®'s M18™ System offers full platform compatibility, meaning all M18™ tools work with M18™ batteries. Staff can simply change power sources on-site, whether deep in a tunnel or across expansive areas. What's more, the M18™ PACKOUT™ Six-bay Rapid Charger can charge six M18 B5 batteries in just three hours.

Operating on a single standardised platform, particularly M18<sup>™</sup>, which has over 315 solutions, means a single battery can be swapped seamlessly between tools. This means longer run times and less back-and-forth to charging points, saving significant amounts of time.

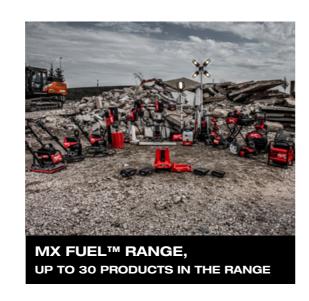
MILWAUKEE® also offers an array of trade specific solutions such as plumbing cutting, joining and press tools, electrical and utility cable cutting and joining solutions, even an array of drain inspection, cleaning and servicing solutions, all on this same M18™ platform.

#### PROVIDE THE RIGHT PPE

At MILWAUKEE®, we have taken the time to understand our users' needs and develop hardwearing PPE from the ground up; delivering a wide range of premium-quality construction workwear that meets the strictest safety standards, while offering the comfort and durability demanded by busy jobsites. This includes cut-resistant gloves that allow users to adapt to each job and safety glasses that can be worn all day with lasting fog-free lenses. MILWAUKEE® is focused on creating innovative solutions for industrial work gear that won't slow users down and will help workers stay safe and productive on site.

#### **WORK WITH A TRUSTED BRAND**

Strengthening your supply chains by partnering with a tried and tested manufacturer, with a robust authorised distribution network, is essential to ensure you are purchasing superior tools, accessories, hand tools, equipment, storage and PPE, that fulfil your exact requirements. Furthermore, when you choose MILWAUKEE®, you also benefit from a wealth of in-house support from its Job Site Solutions (JSS) team, who bring extensive knowledge of the range and expertise to advise on the right products for the best outcomes.







#### E-SERVICE - ROBUST SERVICE INFRASTRUCTURE

MILWAUKEE® doesn't stop caring once users have purchased its products. With MILWAUKEE®'s E-Service, the user will have access to a professional end-to-end repair service where they can track their tool's progress. With E-Service, door-to-door repair time is below 6.5 calendar days within Europe and the Middle East, giving users peace of mind that their tools will be back in working condition in no time. E-Service is live in 27 countries, including United Arab Emirates.

## ACHIEVING MAXIMUM OPERATIONAL EFFICIENCY

ONE-KEY<sup>TM</sup> enhanced tools and equipment puts site teams in control, meaning teams avoid downtime and improve accuracy of application, avoiding having to re-do work. While service interval reporting helps site teams instantly identify what they need, where to find it, when they need it. Both measures help teams to maximise resources, reduce stoppages and enhance work precision.

### HARNESS CUTTING-EDGE TECHNOLOGIES

The latest high-tech tools provide deeper insights. MILWAUKEE®'s ONE-KEY™ technology makes managing on-site resources easier by allowing you to add any tool or piece of equipment to your inventory, regardless of the brand, giving you a full overview of all your assets. Businesses can add unlimited users for free, assign tools to employees and easily track what's currently available.

While you can digitally track when, where, and how tools are being used to optimise efficiency and usage, you can also quickly lock tools and track their location if they go missing. You can even set up a digital 'fence' around your site or premises, and you will be informed if any of your ONE KEY<sup>TM</sup> tools leave the site. Moreover, you can generate reports and access detailed documentation on tool status and usage, further enhancing productivity.





# DRIVING A SAFER JOB SITE

MILWAUKEE® takes safety on the job site incredibly seriously, which is why we've developed our Seven Pillars of Safety, with products, features and equipment all designed to address each pillar:

#### DUST MANAGEMENT

MILWAUKEE® is committed to providing safe and versatile silica dust management solutions that help address applicable EU directives such as the Framework Directive 89/391/EEC and the Chemical Agents Directive 98/24/EC. MILWAUKEE® dust management solutions range from the most universal dust extraction solutions fitting all major brands through to a full range of products enabling floor-to-ceiling dust management. Key applications include: the M18 FUEL<sup>TM</sup> Backpack Vacuum, the Dedicated Dust Extractor for M18 FUEL<sup>TM</sup>, and the M18 FUEL<sup>TM</sup> 32 mm SDS-Plus Hammers with AUTOPULSE<sup>TM</sup>.

#### ■ VIBRATION / NOISE

MILWAUKEE® anti-vibration technologies allow users to work all day without reaching dangerous levels of exposure to vibration. For example: The MX FUEL<sup>TM</sup> 25 kg Class 28mm Hex Demolition Hammer, with low 5.17 m/s² vibrations for over 7 hrs (HAVS) allows for non-stop productivity. For quieter sites, SURGE technology delivers the goods: The M18 FUEL<sup>TM</sup> SURGE<sup>TM</sup> ½" Hex Hydraulic Impact Driver, is the quietest cordless fastening solution on the market. Its FLUID-DRIVE<sup>TM</sup> hydraulic powertrain provides increased safety with lower sound level and less vibration.

#### **■ ERGONOMICS**

MILWAUKEE® is committed to ensuring ergonomics is a key aspect of its product design process. One example of ergonomics in action is the M12 FUEL™ Sub Compact Percussion Drill. It's the most compact and powerful sub compact percussion drill, providing the fastest speed under load. The POWERSTATE™ brushless motor performs the widest variety of applications at high speed, for unrivalled subcompact performance. At only 152 mm in length, this portable drill is the shortest solution in its class.

#### **■ PERSONAL SAFETY**

With a newly designed range of PPE covering users from head to toe, MILWAUKEE® is dedicated to keeping workers safe and productive on site at all times. The PPE range includes safety glasses, headgear, high vis' apparel, trousers, ear defenders, lanyards, gloves, kneepads, masks, cooling gear and safety footwear.

#### ■ SAFETY TECHNOLOGY

MILWAUKEE® has many advanced safety technologies to protect users from acute injuries, such as: AUTOSTOP™ control, which stops a tool when it detects 45° of sharp movement in bind-up situations; and RAPIDSTOP™ brake, which stops tool operation within 2-3 seconds when a finger is lifted from a trigger.

In line with best practice for industry safety standards,
MILWAUKEE®'s Cordless Grinders are equipped with RAPIDSTOP™
brakes and/or paddles – also known as 'Dead Man' switches.
MILWAUKEE®'s Cut-Off Saws (such as MX FUEL™ 350 mm Cut-Off
Saw) feature RAPIDSTOP™ brakes. And its range of hammers (such
as the M18 FUEL™ ONE-KEY™ 8 kg SDS-Max Drilling and Breaking
Hammer), all come with AUTOSTOP™ technology as standard.

#### ■ VISIBILITY

Portable visibility is essential to safety and productivity, and MILWAUKEE® TRUEVIEW™ lights are built to withstand the toughest conditions. Through the use of high-output LEDs, MILWAUKEE® designed optics and REDLITHIUM™ battery packs, TRUEVIEW™ industrial LED lights shine brighter and last longer. For example, the M18™ High Output Stand Area Light Charger provides excellent visibility, with no cord and no trip hazards.

#### EMISSIONS

Zero emissions is important not just for the planet, but also for the workforce. Today's workers are more likely to develop respiratory diseases due to exposure and inhalation of petrol fumes and emissions. MILWAUKEE® is dedicated to providing users with cordless solutions with its M18™ and MX FUEL™ Systems that eliminate dangerous exposures associated with petrol equipment. Suitable for indoor and outdoor use, and with a push-button start, MX FUEL™ Systems ensure safety and deliver upon the performance, run time and durability demanded by today's workforce.

# ZERO COMPROMISE - TOTAL COMMITMENT

### PROJECT ZERO - MILWAUKEE®'S DRIVE TO ENSURE MAXIMUM ON-SITE SAFETY

MILWAUKEE® has always prided itself on being one of the safest professional power tool brands on the market. It conforms this commitment with Project Zero – a hands-on, site-based initiative which promotes best-in-class safety practices and the reduction of on-site accidents.

Led by MILWAUKEE®'s JSS teams, the campaign promotes a zero-accident workplace culture. It's a direct response to the alarmingly high and persistent rates of workplace accidents throughout Europe. Construction is one the continent's most hazardous industries, accounting for almost a quarter of EU-work related deaths<sup>7</sup>.

#### NEVER COMPROMISING ON SAFETY

Site visits by the JSS teams are central to delivering Project Zero. The teams provide hands-on demonstrations and training to showcase best-practice, as well as delivering expert guidance on the latest safety features of tool and workwear equipment.

#### CREATING A HEALTH AND SAFETY-FIRST CULTURE IN CONSTRUCTION

By bridging the gap between awareness and action, Project Zero helps teams better understand correct safety practices and implement steadfast processes and controls; supported by a culture of continuous improvement in risk prevention.

# PROJECT ZERØ

Construction professionals, site managers, and health and safety officers are invited to join the campaign. To take part in Project Zero, book a JSS site visit here:

https://www.milwaukeetool.eu/range/ppe/project-zero/

7. https://hsereview.com/content/europe/eu-s-construction-sector-fatalities-continue-to-rise



#### **Nothing but HEAVY DUTY.**™

# NO TIME TO WASTE

A 20% increase in productivity could reduce the need for an additional 2.5 million workers across the EU (2022)<sup>8</sup>, far exceeding the projected 1.5 million recruits needed to meet demand by 2030.



Working with premium partners, including MILWAUKEE®, can help make this current ambition a reality, futureproofing European construction by equipping site teams with best-inclass tools, equipment and PPE, helping it achieve higher quality outcomes for everyone's benefit.



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