



9.5 million
working days are
lost each year
due to MSD'sⁱ



Reducing Back Injuries and Costs While Improving Productivity

Workplace safety remains a top priority, but safety managers are now focusing more on reducing injuries and costs, enhancing productivity, and fostering a safer culture. Whether your workforce operates in remote and challenging environments or sedentary city offices, prioritizing employee well-being is crucial. With work-related injuries costing **US\$250 billionⁱⁱ** in the United States and lower back injuries contributing to **nearly 20% of workplace injuries** globally, addressing these issues is paramount.

For instance, VINCI Construction UK tackled the prevalent issue of lower back pain among bricklayers by introducing the EcoSpot, a scaffold-mounted mortar board designed to minimize repetitive bending. This innovative solution was supported by ViSafe, a wearable sensor technology that scientifically measured movement and muscle activity in real-time during actual work, validating its effectiveness. By empowering their workforce to actively improve the working environment, VINCI Construction UK exemplifies how addressing specific workplace challenges positively impacts overall organizational health, well-being, and productivity.

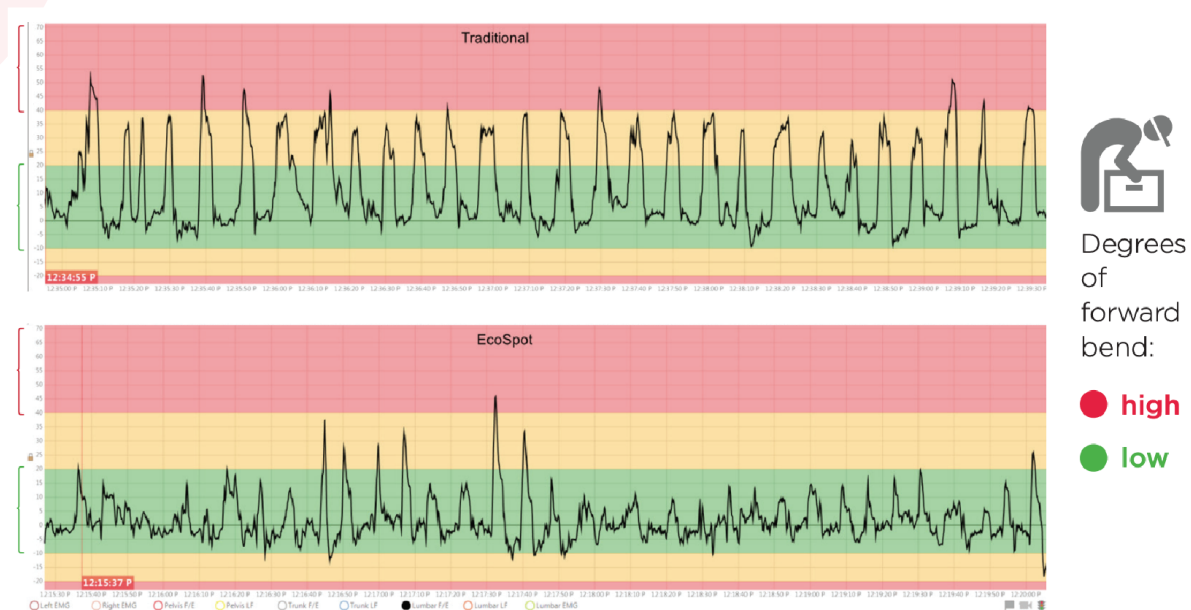


ⁱ <https://ohsonline.com/articles/2012/01/23/us-workrelated-injuries-illnesses-cost-250-billion-annually-study>

ⁱⁱ Ardahan M, Simsek H. Analyzing musculoskeletal system discomforts and risk factors in computer-using office workers. Pak J Med Sci. 2016 Nov-Dec;32(6):1425-1429. doi: 10.12669/pjms.326.11436. PMID: 28083038; PMCID: PMC5216294.

ViSafe efficiently captures human movement, providing companies with easily interpretable data that translates into measurable outcomes. Employed to objectively assess the impact of the EcoSpot on reducing worker burden and lowering the risk of injury, ViSafe utilized small sensors worn by bricklayers during their workday.

By seamlessly switching between the traditional mortar board and the EcoSpot, real-time wireless transmission of data enabled assessors to measure muscle activity and body movement, validating the effectiveness of the innovative solution.



The ViSafe data confirmed the EcoSpot was effective in reducing activities associated with lower back pain compared with traditional methods of laying bricks.

- Time spent with back bent over 20 degrees **reduced by up to 85%**
- An **84% reduction** in lower back muscle activation
- Repetition of higher risk movements **reduced by up to 70%**
- A **17% increase** in productivity, measured in bricks per minute

The study's compelling results demonstrated the EcoSpot's superior safety and productivity performance, supporting its adoption over conventional methods. The data-driven comparison provided by ViSafe clearly highlighted the advantages of the new approach.

Implementing this improved working method promises benefits for both:

Workers - experiencing less pain and injury
Employers - reducing time lost due to injuries and achieving a significant **17% boost in productivity.**

Click below to watch our video case study for VINCI Construction UK

[Watch now](#)