

Artificial intelligence for greater safety

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DIGI TALI SATION



The brain can process hundreds of images every day. But at some point, concentration wears off. Artificial intelligence, however, does not get tired. This can increase safety on construction sites.

Even machines from the first generation of AI – that is handmade, intelligent systems – deliver a consistently powerful performance. An AI-supported

system checks and analyses data 24/7. It can scan and analyse countless individual images, enabling it to identify risks quickly and in good time.

Big Data

For a system to know which hazards might emerge in which point, it needs to learn how to recognise unsafe situations. That's why huge quantities of image data are saved to the AI. And this image data in turn holds information about all of the details contained in each image. Including what should be considered a hazardous situation. A missing hard hat for example. Or there being no face mask available. Or an object that has been improperly stored. And so on and so forth.

These data sets then train the AI: It learns to identify potential hazards in images and then issue warnings. For example by monitoring a construction site using surveillance cameras. The structured and aggregated collection and assessment of HSE data – such as incidents, near-misses or dangerous situations – is an absolute prerequisite for AI-assisted innovations in occupational safety.

Vision Zero



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When it comes to health & safety, PORR has a clear target: zero accidents. And that's why the thinking goes one decisive step further: "Safety first" is merely the foundation on which the numerous other measures are built. Measures that not only aim to prevent accidents, but that also promote good health. Comprehensive checks, training sessions and a reporting system for near-misses and dangerous situations lead to a sustainable decrease in accident frequency. In addition, an occupational safety app developed specially for the company makes it possible to record, evaluate and follow up on the data, as well as facilitating better documentation and faster handling of incidents. So digitalisation is not only changing and simplifying our work processes. It is also increasing our safety and protecting our health.