



5x5 series: Insights and actions

The impact of integrating AI into ER&I initiatives

Unraveling insights into ER&I challenges and actions to consider involving AI for process enhancement and solution discovery



5 insights you should know

Unexpected asset breakdowns may directly or indirectly **jeopardize the safety of an organization's processes** by causing accidents, injuries, or hazardous material exposure.

Inadequate strategies for monitoring workplace safety **heightens the chances of unauthorized activity going undetected**, potentially making organizations susceptible to workplace accidents, legal liability, and reputational damage.

An organization's inability to proactively detect fraud, waste, corruption, and abuse could **cost the entity millions of dollars** and tarnish its reputation among customers and stakeholders.

Manual document review is expensive, time-consuming, and prone to human error. The traditional, non-AI-enabled document review process may be **up to 90% more costly** for organizations compared to AI-enabled methods.

Machines are often interconnected along the production chain. Thus, poor maintenance strategies—even for lower-priority assets—**can potentially reduce a plant's overall productive capacity by 5 to 20 percent** because of the bottleneck effect.

5 actions you can take

1 Utilize predictive maintenance (PdM) capabilities powered by AI to analyze data from diverse sources and enable the prediction and prevention of equipment failure, further **averting potentially dangerous outages and/or harmful environmental impacts.**

2 Leverage computer vision technologies to increase insight into safety risk drivers and identify potential hazards in the workplace, in some cases **with up to 80% accuracy.** This enables the triggering of alerts for remediation to a facility's safety system.

3 Implement AI-enabled monitoring tools to enable real-time visibility into operations and employee compliance. This could facilitate a flexible, scalable approach to effectively monitoring misconduct and also preventing the occurrence of significant financial losses.

4 Consider a customizable Generative AI solution that leverages several leading large language models (LLMs) geared to **simplify and accelerate document review**, which is both accurate and substantively less time-consuming.

5 Explore the benefits that can be reaped from ultra-sonic inspection devices that possess AI sensory capabilities. These devices can predict and potentially prevent imminent maintenance failures, lowering organizations' risk of capacity losses.

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