Healthy Workplaces Good Practice Awards 2023–2025

CASE STUDY

Interactive space for AI-supported assistance to employees and stakeholders in the packaging industry

COMMENDED

ORGANISATION/COMPANY	COUNTRY	SECTOR	TASKS
Focke & Co. and Stubbe	Germany	Packaging	Packaging machines and systems for the cigarette, tobacco, hygiene & tissue, food & consumer industries

Introduction to the case study

Successfully integrating AI into the workplace requires more than just technology – it takes trust and engagement. Focke & Co. and Stubbe introduced the KI_Café, a hands-on initiative where workers explored AI through interactive experiences and open discussions. This approach eased the transition to an AI-powered system assisting workers to assess tool quality, reducing physical and mental strain, improving efficiency and fostering confidence in digital innovation across the company.

Background

Focke & Co. specialises in technologically sophisticated packaging machines and systems.

One critical aspect of their operations is assessing the cutting quality of milling tools – a task that demands high levels of concentration and fine motor skills. Employees must distinguish between tools that are fit for use and those that need replacement, often identifying very small differences that might be hard to see at first glance. Moreover, research and practical tests show that this task can only be performed effectively for a maximum of 1.75 hours per day before fatigue sets in, impacting accuracy and increasing risks to workers' safety and health.

When employees exceed this limit, both their physical and mental health and wellbeing are affected. Prolonged performance of such detailed assessments leads to eye strain, muscle tension and stress. The consequences extend beyond worker health – errors in judgment can result in serious operational setbacks. Tools that are still usable may be discarded unnecessarily, increasing costs, while worn tools mistakenly put back into operation can compromise quality, slow down operations and cause machine failures.

Aims

The aim is to successfully integrate AI-based applications into the workplace, ensuring employee acceptance and confidence in a new technology that can support the assessment of the cutting quality of milling tools.

What was done and how?

- In collaboration with the company Stubbe and with the Bremen Institute for Mechanical Engineering (BIME), Focke & Co. developed an innovative assistive AI-based system for assessing the quality of milling tools. This system enables employees to independently evaluate tool wear with AI support, reducing their workload and minimising physical and mental strain.
- To encourage acceptance of the AI system and build trust among management and employees, a unique implementation strategy was introduced through the KI_Café. This initiative provided a dedicated platform for employees to engage with the system's developers and employee representatives,

ensuring open discussions about the technology's opportunities and risks from the outset.

- The KI_Café was built not only to facilitate discussions but also to allow employees to actively participate in testing and developing AI systems. The initiative provided a hands-on path that allowed employees to discover more about AI, from ordering coffee from a smart coffee machine, asking ChatGPT questions and creating artistic images in seconds, to learning more about the AI milling tools assessment system.
- The implementation strategy prioritised involvement at every level, from machine operators to management, to align the AI system with actual workplace needs. Through the KI_Café, the company showcased the development progress of its own AI-based milling tools assessment system, allowing employees to provide feedback and voice their concerns directly to researchers and developers.

What was achieved?

- Focke & Co. and Stubbe successfully implemented a functional AI-driven solution to support workers assessing the cutting quality of milling tools, enhancing accuracy and reliability in production.
- By using AI to assess tool wear more precisely, the company reduced unnecessary tool replacements, cutting costs while improving production efficiency.
- The AI system lightened the burden on employees by automating repetitive assessments, reducing physical and mental strain.
- Through hands-on experience and discussions, employees developed a sense of security and confidence in working with AI, fostering a more positive attitude towards technological advancements.
- The KI_Café initiative proved to be a successful method for introducing AI technologies, enabling open dialogue, practical testing, and active employee engagement.
- Employees were directly involved in the transition to a more digitised production environment, gaining valuable expertise in working with AI-driven processes.
- The KI_Café played a key role in facilitating knowledge transfer, encouraging employees to exchange experiences and insights, ultimately supporting a smoother AI adoption process across the company.

Success factors

- The project had strong institutional support, being promoted as part of sustainable business and digital transition initiatives by the Federal Ministry of Labour and Social Affairs through the social business consultancy Gesellschaft für soziale Unternehmensberatung mbH.
- The cooperation between Focke & Co., Stubbe and the University of Bremen ensured a well-balanced division of labour and shared responsibility, leveraging expertise from both industry and academia.
- Transparent and effective communication between internal and external stakeholders fostered trust, leading to high acceptance and smooth collaboration throughout the project.
- By selecting easy-to-use AI applications and interactive exhibits closely linked to employees' daily tasks, the KI_Café ensured high participation and engagement.
- Ongoing documentation and publication of findings, methods and approaches ensure continuous optimisation throughout the project.
- The company's training workshop played a crucial role in the technical implementation and organisation of the KI_Café.

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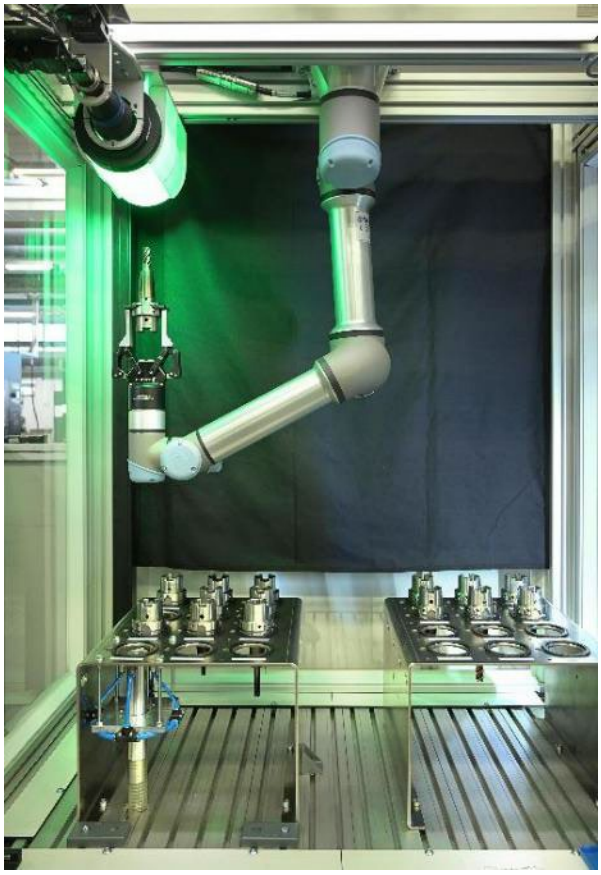
Transferability

The KI_Café approach offers a transferable model for organisations seeking to implement AI while prioritising occupational safety and health. By fostering hands-on interaction, open dialogue and transparency, this initiative ensures that employees feel involved and confident in AI-driven processes. Its emphasis on reducing physical and mental strain through AI-assisted tasks makes it especially relevant for industries where precision work impacts workers' safety and health, in particular mental health and wellbeing. This method can help businesses introduce AI responsibly, enhancing workplace safety while easing digital transitions.



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Costs and benefits

The development and implementation of the AI-based assistance system, along with the organisation of the KI_Café, required an investment of approximately €500,000 in staff and material costs.

Despite the initial investment, the benefits of the AI assistance system quickly became evident. The improved accuracy in predicting tool wear is expected to generate annual savings of €30,000. Additionally, the structured roll-out process through the KI_Café played a crucial role in ensuring high employee acceptance of the new system. By fostering trust and transparency, the initiative helped integrate AI seamlessly into daily operations, maximising its long-term benefits.

Key features of good practice example

- AI-assisted assessment of milling tools reduces physical and mental strain among workers, improving their safety, health and wellbeing.
- KI_Café's hands-on engagement allows employees to explore AI in a safe and interactive environment.
- A structured, inclusive approach ensures AI adoption aligns with real workplace needs.
- Clear communication and employee participation drive acceptance, making digital transitions smoother.

Further information

Further information can be found at:

https://www.focke.com/

https://stubbe-bremen.de/

KI_Café's hands-on engagement allows employees to explore AI in a safe and interactive environment.