PRESS RELEASE

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Photos relating to the press release

"Machines will think along with us in the future"

((1_Philipp_Klimant_Fraunhofer.jpg))

"AI is like a black box, input values go in and forecasts come out," says Prof. Philipp Klimant, Head of Business Unit Process Digitization and Manufacturing Automation at the Fraunhofer Institute for Machine Tools and Forming Technology (IWU). "One example of this would be a forming process where we measure an acoustic signal and then the AI tells us whether or not the process was successful."

Photo: Fraunhofer IWU

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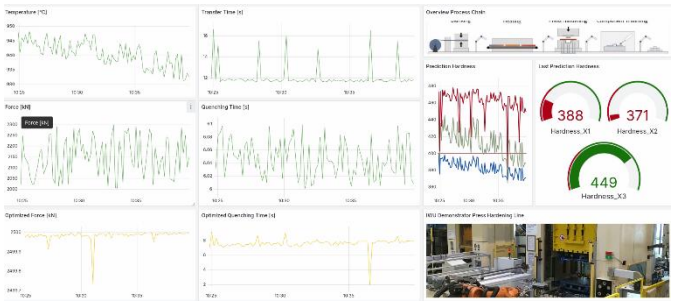


((2_Dashboard_Presshärten.png))

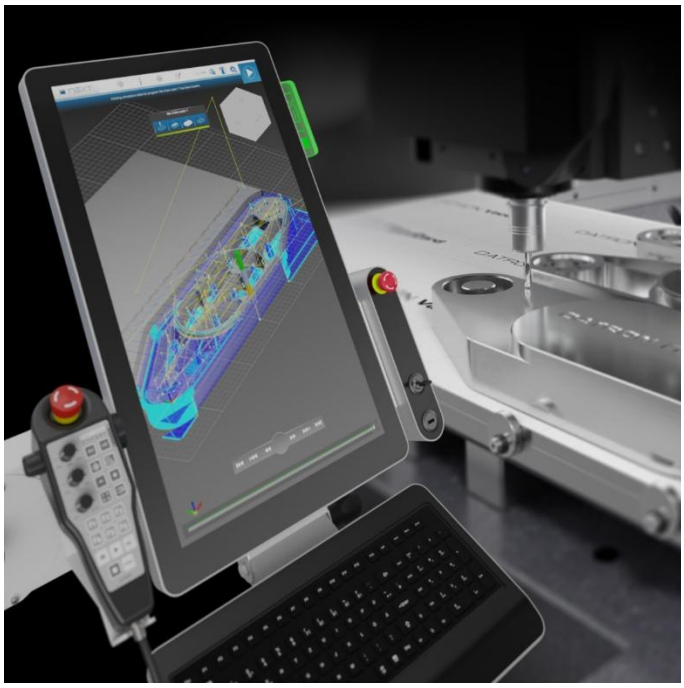
The dashboard shows the use of an AI model for point-by-point prediction of hardness during a press hardening process. It shows the input values from the sensors (green curves) and, on the right-hand side, the hardness prediction for three points on the workpiece. In the lower area (yellow curves), the system makes suggestions for optimizing the process.

Photo: Fraunhofer IWU

((3_Jonas_Gillmann_Datron.jpg))

"AI can reduce set-up times for Datron machines in CNC production by up to 60 percent, significantly reduce the amount of rejects and extend the service life of tools – while at the same time increasing process reliability," says Jonas Gillmann, Chief Technology Officer (CTO) of milling machine manufacturer Datron.

Photo: Datron AG



((4_Simulation_DATRON_next.jpg))

Self-learning machine tools are made possible by AI. The control software from milling machine manufacturer Datron, called "Datron next", is designed to guide users intuitively through the milling process. The aim is to develop Datron milling machines into adaptive production cells that automatically adjust to component requirements and environmental conditions.

Photo: Datron AG