AI now looks for cracks in metro axles in Helsinki

Artificial intelligence is now used to find cracks in metro axles. Trueflaw Ltd., DEKRA Industrial and HKL have collaborated to deliver an AI-based system, that detects cracks in ultrasonic inspections. This is an industry-first application of AI for the complex ultrasonic data. The automated system works alongside the human experts and helps to make the inspections both faster and more reliable. "The task of finding small flaws from hundreds of axles is massive. Even a single missed flaw can be critical. The help that AI provides is greatly appreciated.", Nikke Lainepää, the responsible inspector from DEKRA comments.

Many high-reliability systems rely on periodic inspections for their safe use. Finding the incipient cracks from industrial components, like train axles or jet engines have long been a task reserved for highly skilled human experts. Now the AI-system, developed by Trueflaw Ltd., can analyze the data with human-level detection capability and unprecedented dependability. The analysis, that took the human inspector hours will be reduced to seconds by the AI. Human experts still have the final say and the AI is there to help concentrate their effort to make the inspections faster and more reliable.

Trueflaw Ltd. makes cracks, offers NDT reliability evaluation services and develops high-reliability AI-based flaw detection systems.

DEKRA is a global leader in safety at work, in traffic and at home. DEKRA was found 1925, now it is the largest unlisted expert organization in TIC (Testing, Inspection and Certification) with more than 45 000 employees in over 50 countries. DEKRA provides the critical inspections in many high-reliability industries around the world.

Helsinki City Transport HKL is responsible for running the trams and the metro as well as construction and maintenance of track, stations and depots in the Helsinki region.

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