

## Improved profitability in the industry through artificial intelligence



**RISE, Research Institutes of Sweden, in a joint effort with Sogeti and Level21 recently started a co-operation with the battery manufacturer Nilar and steel producer Surahammars Bruks with the aim to automate and improve the inspection process with the help of artificial intelligence, AI.**

**-This is the key to a successful volume increase even with improved quality, says Kjell Bergman, data analyst at Nilar that faces a great challenge with rapidly growing production volume.**

**Surahammars Bruks is experiencing the similar situation:**

**-We should be able to reduce up to 75 percent of the time that is today used for manual inspection and use it for other work tasks, says Karin Haglund, Head of Development and Technology at Surahammars Bruks.**

Today, industrial data is already collected in large quantities for quality inspection. Although this information is in digital format, inspections are still mostly done manually and by staff with special knowledge. For the need to improve the efficiency of the quality inspections, Nilar and Surahammars Bruks together with RISE, Sogeti and Level21 have started a new project targeting to automate the inspection process by using AI.

-Automation is of priority also in economic terms because about 70 percent of all inspections at Nilar today are done manually. This is causing cost both in labour and production time, Kjell Bergman continues.

The Swedish battery manufacturer with its production site in Gävle is facing a major challenge with a rapidly growing production volume. The project “AI för ökad processeffektivitet” (“AI for improved process efficiency”) aims at implementing AI-based quality control to respond to increasing demand and quality requirements from Nilar’s and Surahammars Bruks’ customers.

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-By introducing an automatic inspection of electrical steel strips, the quality level will also be raised enabling success also with new customers in more demanding applications such as motors for electric cars, says Karin Haglund at Surahammars Bruks.

Machine learning and image analysis will be used to automate the inspection process with the aim of demonstrating a reduction of waste more than 30% and manual work more than 50%. The project is carried out with RISE as coordinating partner and expert in AI. It is financed through the strategic innovation program PiiA (Processindustrial IT & Automation). PiiA is one of the 17 strategic innovation programs funded by Vinnova, the Swedish Energy Agency and Formas.

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