Automated for the people

The adoption of robotics and automated systems is crucial to the future of the food industry, according to sorting specialist Tomra.

The global food industry is set to benefit from continued improvements in automation and robotics allowing the industry to become safer, more efficient and deliver higher profits. This is the verdict of sorting group Tomra, which believes that these improvements in automation are not only necessary to boost yield but are also inevitable as technology continues to evolve.

The figures seem to back this up. International business consultancy Grant Thornton conducted a recent survey of 2,751 executives across 36 economies, with results suggesting that manufacturing businesses across the world would be replacing more than five per cent of their workforce with robots in the near future – although more than half of the surveyed companies plan to redeploy affected staff. Meanwhile, another research project – the 2015 World Robotic Survey by the International Federation of Robotics – found that 2018 global sales of industrial robots will on average grow 15 per cent year-on-year.

Looking specifically at food processing, a report by Automated Packaging systems in the UK stated that Californian strawberry growers have invested in a 14-arm robotic harvester to pick faster and reduce labour costs, while the same report highlights the fact that Wageningen University is undertaking a project called Clever Robots for Crops to show how robots can select perfectly ripe fruit accurately and quickly.

"Ongoing advancements in automation and robotics technology are driving improvements in all aspects of food manufacturing and processing," explains Steven Van Geel, Tomra’s food sales director for China. "This does mean that certain types of manual labour will be replaced. However, our experience in both developed and developing economies is that as automation increases food processors look to employ more highly skilled workers to operate the machines.

"Manual food sorting requires significant management time within business to organise and run teams of people on a continuous basis," he continues. "In this situation, it is an extremely difficult task to ensure consistently high rates of yield and ensure sorting effectiveness is maintained. It is also becoming increasingly seen as an unattractive employment opportunity."

As an example of utilising increased automation, Tomra points to one of its customers, Yantai Lushun Foodstuff. The group installed a Helius C640 free-fall sorter in response to increasing labour costs and the fact that it was becoming more difficult to recruit sorters.

"This type of automation has allowed us to enhance food safety, create a better yield and generate productivity gains," confirms Yantai chairman Luxia Zhang. "The success of the Helius has given us a competitive advantage and enabled us to perform strongly in a global marketplace. We are committed to continued automation of our processes as we only expect labour costs and human resource issues to increase over time. Our objective is to use the automation technology available to ensure we continue to grow a sustainable business by consistently providing safe, high quality produce to our customers."


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