



The future of the food sector lies in Generative AI, automation and quantum computing

Food 4 Future - Expo Foodtech kicks off its fourth edition in Bilbao, Spain, with technology as a key tool to optimise processes, improve quality and guarantee food safety

Leaders from Nestlé, Frit Ravich, Fujitsu or Estrella Galicia have presented their latest innovations and technological strategies applied in their companies

Madrid, 16 April 2024 – [Food 4 Future - Expo Foodtech 2024](#) and [Pick&Pack for Food Industry](#) have opened the doors this Tuesday turning Bilbao into the center of the food industry. Bilbao (Spain) welcomes from this Tuesday, April 16 and until Thursday 18, **more than 8,000 C-Level executives**, professionals and experts of the FoodTech sector that will put on the table the latest innovations focused on building a more sustainable, digitized and efficient industry.

The food industry is constantly evolving thanks to the implementation of cutting-edge **technologies** that optimise processes, improve quality and guarantee product safety. These innovations and their implementation, which are undoubtedly marking the sector, have been some of the protagonists of the first day of the new edition of Food 4 Future.

Among the technologies highlighted are **industrial machine vision**, capable of detecting quality defects that could go unnoticed and that can affect entire batches of products and generate problems in logistics and with the consumer. Emilio de la Red, Director of Innovation and Business Development at **Inspectra (INNDEO)** explained that to carry out these high-speed quality control inspections *"we use Generative AI, GPUs, high-resolution images or chemical images"* that contribute to a more exhaustive analysis and avoid problems, technologies that are applied to industrial machines such as cleaning machines.

Automation is another key point in improving efficiency and quality in the food industry. Oscar Palacín, Robotics Researcher at **Eurecat**, discussed the implementation of industrial robots and automated systems for tasks such as harvesting, spraying and pruning in agriculture. These solutions, designed to operate autonomously and accurately, are transforming the way farming operations are carried out, facing challenges such as climate change and labour shortages. On the other hand, **Frit Ravich** is also incorporating **collaborative robotics** solutions and IoT devices to gain more insight into processes and automate plant operations and improve quality standards.

Technology is also a great ally to guarantee food safety and quality in beverage factories. This has been confirmed by Antonio Rodríguez, Quantum Computing Scientist at **Fujitsu International Quantum Center**, and María Paredes, Research Technisian at **Hijos de Rivera (Estrella Galicia)**, who presented a research project focused on two **quantum computing** techniques applied to flavour perception. The work has demonstrated how the precise identification of molecules and their interaction with taste receptors can revolutionise the development of food products. This innovation could open doors to creating new flavours and improving freshness in a variety of food products.

Nadia Khaled, Department Manager Digital Food Safety at **Nestlé**, highlighted the importance of **digital transformation** in food safety by presenting an early warning platform developed in



collaboration with SGS. This innovative tool monitors a wide range of web sources to identify emerging risks and regulatory changes, enabling a proactive response to ever-evolving industry challenges.

Artificial Intelligence (AI) is causing a real revolution in all sectors and the food sector is no exception, as explained in another of the sessions by representatives from companies such as **Tecnocreativa, Aggity and IFR**. It is currently being used in all links of the value chain, from product design and development to quality control, the supply chain, robotics and customer service. In addition, AI also has other applications in the food industry, such as its use in the automation of manual and repetitive tasks, in the simulation of production processes in real time to visualise errors and reduce downtime, or in the prediction of machine failures that cause production downtime.

About [Food 4 Future – Expo Foodtech](#): F4F - Expo Foodtech (April 16-18, 2024, Bilbao, Spain) is the innovation event for professionals of the entire food industry value chain. For three days, F4F - Expo Foodtech will bring together, at the Bilbao Exhibition Centre (BEC), more than 8,000 food industry professionals and 250 exhibiting firms to present the latest solutions in foodtech, robotics and automation, processing and packaging machinery for the different segments of the food industry, as well as food safety and food science. In addition, it will host the Food 4 Future World Summit, the largest European congress in which to discover the latest trends, success stories and tools to transform the food and beverage industry from the hand of more than 450 international experts. F4F - Expo Foodtech is organized by NEBEXT and AZTI. This year, F4F - Expo Foodtech 2024 will be held simultaneously with Pick&Pack for Food Industry, the only event in Spain specializing in packaging and logistics solutions for the food industry.