

FIRDI Spotlights AI, Personalised Nutrition and Sustainable Innovation at Food Taipei

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Artificial intelligence, precision nutrition, and sustainable food innovation emerged as key themes at the "Beyond Progress to Evolution" forum held during the 2026 Taipei International Food Show (FOOD TAIPEI MEGA SHOWS), co-organised by the Taiwan External Trade Development Council (TAITRA) and the Food Industry Research and Development Institute (FIRDI).

Delivering a keynote session titled "Deconstructing the Global Shift in Precision Foods," Li-Ting Chen, Senior Researcher at FIRDI, outlined how demographic changes, digital technologies, sustainability goals, and evolving consumer expectations are reshaping the global food industry.

Chen emphasised that food manufacturers are facing unprecedented information overload due to rapid technological advancements and changing regulatory requirements. She urged companies to adopt systematic frameworks to identify long-term market opportunities and align innovation strategies with emerging global trends.

According to FIRDI's research, six major forces are driving the transformation of the food sector: ageing populations, personalised nutrition, decarbonization, circular economy practices, supply chain resilience, AI integration, and precision demand forecasting. Chen described AI as a catalyst that is accelerating the transition toward smart manufacturing, data-driven operations, and more efficient food systems.

A major focus of the presentation was the rise of precision nutrition, where food products are increasingly tailored to individual health needs rather than designed for mass consumption. Alternative proteins, biotechnology, and functional foods were highlighted as important growth areas.

The forum also showcased international collaboration between FIRDI and Spain-based AINIA Technology Centre. Speaking at the event, Andrés Pascual Vidal, Director of Innovation at AINIA, discussed emerging alternative protein technologies and sustainable food innovations being developed in Europe.

Chen revealed that FIRDI and AINIA are expanding their partnership to include in-body functional validation studies, aimed at scientifically assessing how alternative proteins are absorbed and utilised within the human body.

The forum underscored the growing convergence of AI, sustainability, and nutrition science as key drivers of the future food ecosystem.