FROM RESEARCH TO INDUSTRY

cea tech

CEA TECH SERVICES FOR THE FOOD INDUSTRY

Technology for tomorrow's food-industry challenges

FOOD-INDUSTRY CHALLENGES

Industrial efficiency
Production line optimization; process control; occupational safety

Logistics
Assisted handling and palleting; food and package tracking

Food safety
Input characterization and quality-control; health inspection; cleanliness; packaging

Traceability
Raw materials traceability; packaging instrumentation and monitoring; detection of abnormal conditions in the food chain

Energy efficiency
Reducing energy spending and recycling waste into energy

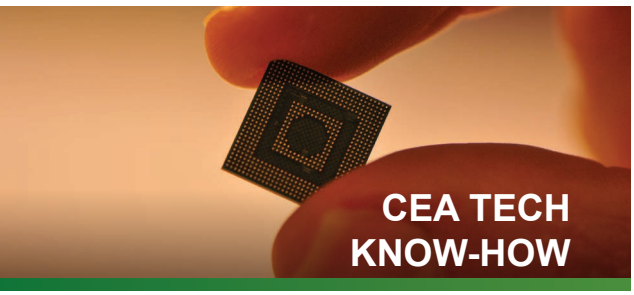
CEA Tech technology

- Vision systems
- Thermal systems
- Characterization
- Expert systems and advanced decision-assistance software
- Sensor systems and integration
- Robotics and cobotics
- Data transmission and processing
- Materials

CEA Tech can help the following businesses:

- Food manufacturers
- Food packaging manufacturers
- Food-industry (machine) manufacturers
- Health and safety inspection authorities

Here are some of the ways CEA Tech can support your development:



CEA TECH KNOW-HOW

FOOD-INDUSTRY APPLICATIONS

Gas sensors (physicochemical, optical, etc.)	Detect and analyze gases in real-time, with either single-gas or multiple-gas measurement for production lines; "electronic nose" systems
Lensless optical imaging systems	Detect the presence of bacteria; monitor cell cultures; monitor yeasts (for beer and other fermented products)
Conducimetric sensors	Provide real-time brewery-tank monitoring and modelling
Sensors for water-quality monitoring	Detect substances like proteins, toxins, hormones, pesticides, and drugs in water
Integration of sensors into plastic, textiles, and other materials	Measure indicators right at the product, adjusting for environmental factors
RFID tags	Integrate tags into food packaging to locate products and monitor parameters like temperature in demanding environments
Materials	Develop new materials to improve food packaging
Flexible technologies	Manufacture sensors on conformable materials integrated into the items to be monitored
Expert systems and advanced decision-assistance software	Detect non-quality inputs and/or outputs and start/stop processes in real time
Virtual and augmented reality	Design and model production lines and maintenance operations for operator training
Robotics and cobotics	Design cobots to assist operators with difficult, sensitive, or repetitive tasks
Characterization	Characterize matter, materials, processes, and packaging at the nanometric scale
Heat recovery and biomass	Recover and recycle waste into energy; increase production-line energy efficiency
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