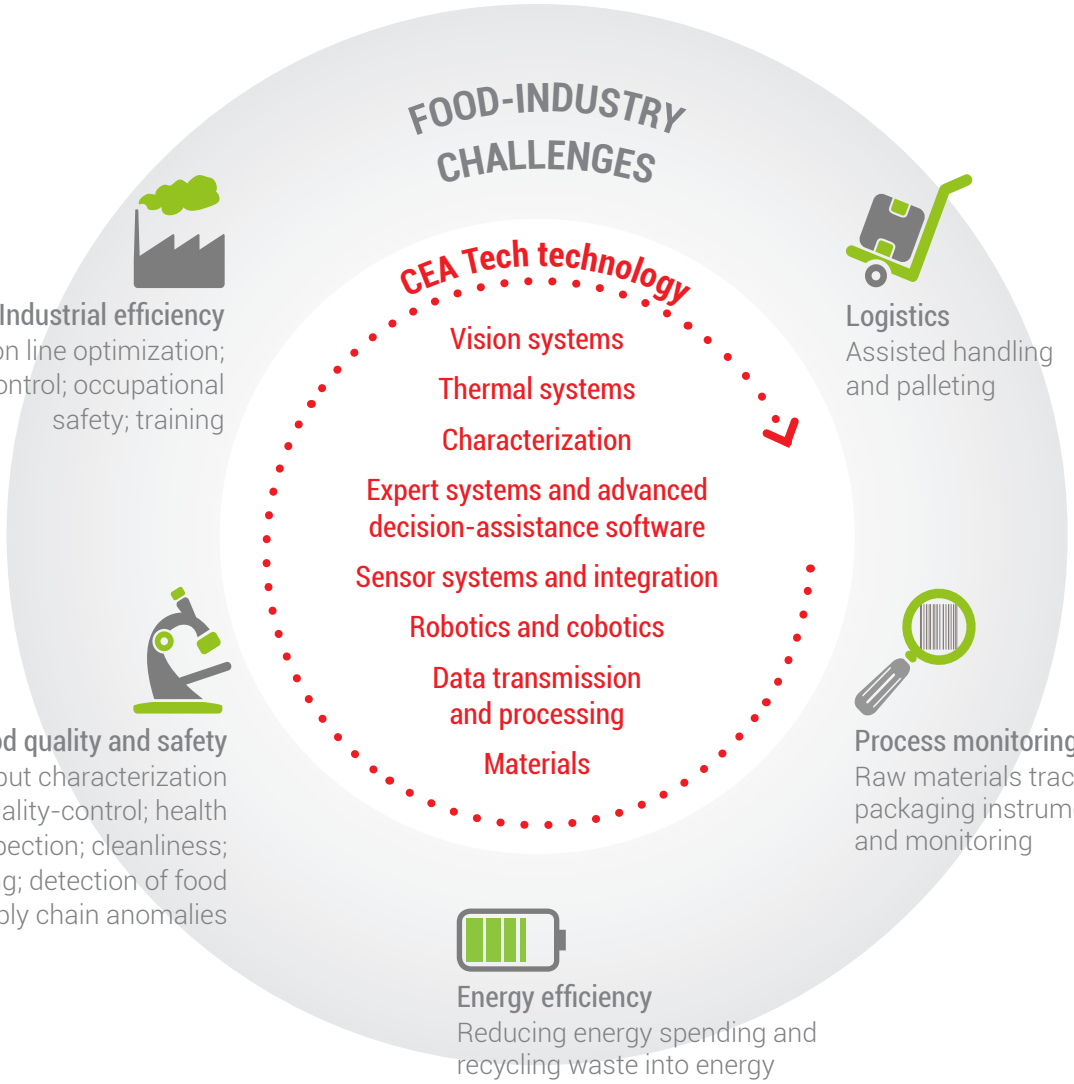
FROM RESEARCH TO INDUSTRY

cea tech

CEA TECH SERVICES FOR THE FOOD INDUSTRY

Technology for tomorrow's food-industry challenges



Industrial efficiency
Production line optimization; process control; occupational safety; training

Logistics
Assisted handling and palleting

Food quality and safety
Input characterization and quality-control; health inspection; cleanliness; packaging; detection of food supply chain anomalies

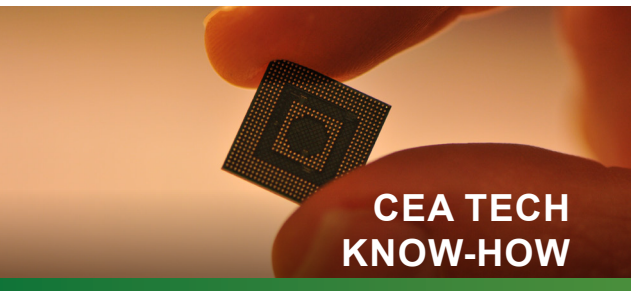
Process monitoring and control
Raw materials traceability; packaging instrumentation and monitoring

Energy efficiency
Reducing energy spending and recycling waste into energy

CEA Tech can help the following businesses:

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

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



Gas sensors	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, drugs, and ions in water
Integration of sensors	Measure indicators right at the product, adjusting for environmental factors
Geolocation and tracking	Integrate tags into food packaging to locate products and monitor parameters like temperature in demanding environments
New materials and advanced processes	Develop new materials to improve packaging parameters and additive manufacturing lines
Flexible technologies	Manufacture sensors on conformable materials integrated into the items to be monitored
Data processing and security and decision assistance software	Detect non-quality inputs and/or outputs and start/stop processes in real time; expert systems, cybersecurity
Virtual and augmented reality	Design and model production lines and maintenance operations for operator training and maintenance
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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