

HORIZON-CL6-2026-01-CIRCBIO-01: Improving circularity of multilayer flexible plastic food contact packaging

CNTA is an agri-food R&D center with consumer & food service datasets and research, and expertise in the characterization and validation of food packaging. We can bring:

1. Consumers' acceptance and literacy on correct disposal of food packaging

- Assess how well consumers understand sorting and recycling guidelines.
- Identify barriers and motivators influencing correct disposal behavior.
- Use MundoSabor® to evaluate consumer responses across regions and groups.
- Conduct workshops and awareness activities to improve recycling literacy and participation in circular packaging.

2. Safety and compliance for recycled food contact materials

- Full food contact compliance testing and risk assessment for recycled polymers.
- Analytical characterization of contaminants, additives, and degradation products in both recycled and virgin films.

3. Functional and barrier performance evaluation

- Evaluation of properties of new packaging, and its food preservation/interaction performance

4. Food-industry TRL8 packaging validation

- Validation of packaging design in real food products and processing environments

HORIZON-CL6-2026-01-CIRCBIO-01: Improving circularity of multilayer flexible plastic food contact packaging

CNTA is a food R&D center specialized in sustainable food packaging:

- **Facilities:** Pilot packaging lines, lab of barrier and functional property analysis, lab food-packaging interaction and shelf-life
- **Food Safety Dept.** advise on implementation and improvement of compliance with legal requirements in Spain and the EU (HACCP*, sectorial and horizontal legislation). Design and optimization of control plans for the verification of product quality and safety. Surveillance of emerging food safety risks.
- **Consumer Research Dept.** applies Mundosabor® online consumer community, to perform qualitative and quantitative online methodologies to monitor habits, perceptions and preferences of consumers.
- **Digital Dept.** develops AI-based analytical models based on NIR, hyperspectral, or metabolomic fingerprinting to classify and trace packaging materials
- **EU Projects** related to sustainable food packaging in [BIOSNAP](#), [SISTERS](#), [MANDALA](#) and [NEWPACK](#); and food losses and waste [Wasteless](#) and [Chorizo](#).



MUNDOSABOR
by CNTA



wasteless

CHORIZO
PROJECT

*Hazard Analysis Critical Control Point

We're CNTA




NATIONAL CENTER FOR FOOD
TECHNOLOGY AND SAFETY.

*Cutting-edge
knowledge and
technology.*

Team

especiè CNTA 



-  **+250 Professionals**
-  **+500 Associated companies**
-  **Governing board**
Institutional and associated
companies



Facilities and equipment

- 14 Labs**
- 12 Pilot plants for food processes**
- 3 Platforms for advanced characterization :**
Metabolomics, cell culture and C. elegans

**6 working
centers:**
San Adrián,
Alesón, Calahorra, Logroño, Madrid, Pamplona



CNTA in 2025

Research
Reports
Consumer studies
Analytical services
Consulting
Training
Events

47

Knowledge uptake
projects

172

Contractual R&D
projects

97

Training
actions

88.961

Technological services
reports for companies

480

Associates

+

813

Clients

=

1293

**Companies
trust CNTA**

Our R&D capabilities



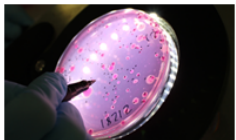
Circular food ingredients

New upcycled ingredients | Isolation of bioactive compounds | Encapsulation | Sustainable proteins



Food product development

Smart formulations | Clean label | Novel foods | Alternative proteins | Extrusion & texturization | Sensory evaluation



Innovative preservation strategies

Thermal & non-thermal treatments (UV, plasma, HPP, etc.) | Antimicrobials & biopreservatives | Chlorine alternatives



Food biotechnology & fermentation

Strain collection | Microbiome characterisation | Pre/pro/postbiotics | Process optimisation | Precision & biomass fermentation



Sustainable food processes & packaging

Active coatings | Food contact product validation | Biomass stabilisation & conditioning | Post-harvest solutions



Digital & AI tools

Artificial vision (NIR, Spectral tech) | Data science & AI | Process modelling & simulation | Process efficiency & quality



Advanced food characterisation & 'omics'

Ingredient & product functional evaluation (*in vitro* & *in vivo* platforms, e.g. *C. elegans*) | Metabolomics



Consumer studies & acceptance

EU-wide surveys, in-depth interviews & focus groups | Market strategy | SSH | Online platform (>5k consumers)

**MUNDO
SABOR**
by CNTA

Our pilot equipment

- 🍷 Post-harvest treatments and operations
 - 🍷 Ready-to-eat products and cooked meals
 - 🍷 Manufactured meat and dairy products
 - 🍷 Fluid bed coater/dryer for encapsulation
 - 🍷 Active and smart packaging, ecodesign
-
- 🍷 High-Pressure processing unit (HPP)
 - 🍷 Extrusion technologies (dry & HME extrusion)
 - 🍷 Fermentation processes (solid, liquid, precision) – from 50 ml up to 150 L bioreactors
 - 🍷 Sidestream valorisation (stabilisation, extraction, purification)
-
- 🍷 *In vitro* digestibility platform
 - 🍷 HPLC and metabolomics platform
 - 🍷 ISO-compliant tasting rooms (sensory booths)
 - 🍷 Laboratories and whiterooms



Formulator | Autoclave | UHT lane and aseptic packaging | Microwave treatment | Cold plasma



Controlled atm. storage & drying rooms | Packaging and thermoforming eq.



Dry/HME/cooking extrusion: 4x pilot extruders



Ultrasounds | Sidestream valorisation | 150L bioreactor



Extensive EU R&D funding expertise



Like a **PRO**

EPICSHIFT



wasteless

CO FRESH



model²bio



CHORIZO



María Busolo Pons, Ph.D.

European Projects Researcher

+34 948 670 159 | +34 606 137 255

mbusolo@cнта.es



Natanael Viñegra de la Torre

European Projects Researcher

+34 948 670 159 | +34 647420831

nvinegra@cнта.es



Morena Silvestrini

European Projects Researcher

+34 948 670 159 | +34 677885252

msilvestrini@cнта.es



Daniel De la Puente Ranea

Head of EU Projects

+34 948 670 159 | +34 677885265

ddelapuerta@cнта.es