

Understanding drivers and obstacles of sustainable competitiveness in rural agri-food systems

- Support **research and data analysis** on the **market and social drivers/ barriers** affecting competitiveness of **rural agri-food businesses**.
- Conduct **consumers' studies** by surveys in different EU countries and focus groups or in-depth interviews in Spain.
- Provide evidence from **real industrial ecosystems in rural regions in Spain**, where CNTA operates, supporting **case studies** on circular economy, digitalization, and innovation adoption in SMEs and cooperatives.

Supporting rural startups and young entrepreneurs

- Support the **design of technological roadmaps** and carry out activities to **support the technological development of solutions** (prototyping, pilot tests, consumer acceptance, etc.).
- Host **cross-regional demo days and solution-sharing events** to promote adoption across rural territories.
- Develop short, practical **online and blended training modules** on food innovation, sustainability, food safety and quality, market opportunities, trends, legal requirements.

CNTA has been partner of **CONSERWA** and is currently involved in **CO-FRESH** and **BIOTECH4FOOD**, which collectively aim to **transform and modernize European agri-food value chains by integrating agroecological practices, advanced biotechnologies and collaborative innovation models** to enhance **sustainability, circularity, economic performance and farmer/SME capacity**, supported by decision tools, training and inter-regional cooperation.

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



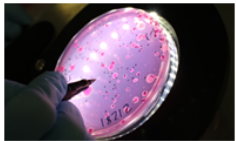
Circular food ingredients

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)

Our pilot equipment



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

- 🔬 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



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

- 🔬 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)



Dry/HME/cooking extrusion: 4x pilot extruders

- 🔬 *In vitro* digestibility platform
- 🔬 HPLC and metabolomics platform
- 🔬 ISO-compliant tasting rooms (sensory booths)
- 🔬 Laboratories and whiterooms



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