

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.



Team especie CNTA

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



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

Facilities and equipment

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

*Cutting-edge
knowledge and
technology.*



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 lane 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





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