



"Valorization of natural vegetable resources. Development of new healthy products and process digitalization to improve the sustainability and competitiveness of the production sector"

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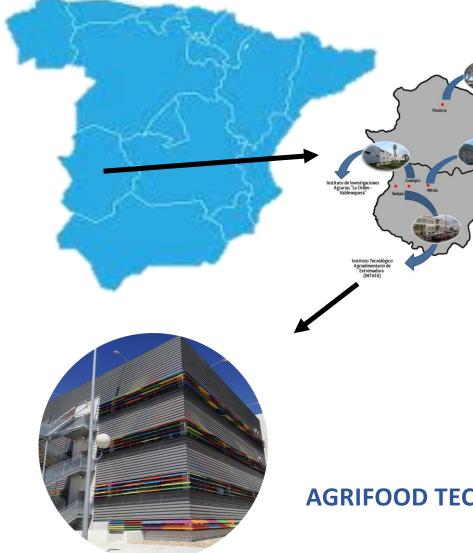






Consejería de Educación, Ciencia y Formación Profesional

WHO WE ARE



CICYTEX is a public research centre for Food and Agriculture based in the Extremadura region, Spain. It is composed of four Institutes:

- ✓ FINCA LA ORDEN. Focused on Crops and livestosk production.
- ✓ **ICMC**. Devoted to Mediterranean silvopastoral systems.
- ✓ **CAEM**. Organic and Mountain Agriculture Center.
- ✓ **INTAEX**. Focused on food processing technology.

Our goal is to develop applied research to the Extremadura agroecosystems, to work in a participatory approach with local stakeholders and to transfer them the scientific knowledge



AGRIFOOD TECHNOLOGICAL INSTITUTE OF EXTREMADURA (INTAEX) Vegetable Area

The **Vegetable Area** provides scientific and technological support to the fruit and vegetable sector.

to del Corcho, la Mader el Carbón Vegetal (ICMC)



http://cicytex.juntaex.es/es/

TOPICS AND PROJECT IDEA

"Valorization of natural vegetable resources. Development of new healthy products and process digitalization to improve the sustainability and competitiveness of the production sector"

- ✓ New healthy and sustainable food products and processes (HORIZON-CL6-2024-FARM2FORK-01-2).
- ✓ Regional ecosystems of innovation to foster food system transformation (HORIZON-CL6-2024-GOVERNANCE-01-2).
- ✓ Promoting minor crops in farming systems (HORIZON-CL6-2024-BIODIV-02-3-two-stage).
- ✓ Impact of the development of novel foods based on alternative sources of proteins (HORIZON-CL6-2024-FARM2FORK-01-7).

Objective: Valorization of minority and emerging crops with high nutritional and bioactive value, and development of healthy and sustainable products. Improvement and optimization of processes.



TOPICS AND PROJECT IDEA

- Tasks: > Agronomic study of traditional and emerging crops of quality and high nutritional value (quinoa, stevia, ancient wheat, lupins, amaranth, chia, fruits, etc.).
 - Nutritional and bioactive characterization and classification of crops. Digitalization using NIR technology and electronic sensor systems.
 - > Development of innovative and healthy foods (with high protein value, bioactive and heart-healthy profile).
 - Nutritional, functional, digestibility and shelf-life studies of final products. Sensory analysis and implementation of electronic devices for digitalization.

PARTNERS SOUGHT

- Public or private research organizations: complementary studies of emerging and minor crops with high nutritional and bioactive value.
- > Public or private organizations: *in vitro* and *in vivo* digestibility studies.
- > Public or private entities: development of electronic devices for the digitalization of processes.
- > Entities representing end users:
 - Companies and Business Associations for the development of products acceptance and market studies.
 - Companies and Business Associations for the implementation of the results obtained.



WHAT WE OFFER

Skills and expertise offered

- Use of natural antimicrobial agents.
- Use and valorization of by-products.
- Nutritional, microbiological, functional and sensory characterization.
- Establishment of useful life.
- Characterization of emerging and minor crops.
- Sensory analysis of foods.
- > Application of **electronic systems.**
- Application and development of innovative processes.
- Works with industries in the agri-food sector.

16 European projects participated

- ✤ 4 LIFE: LIFE RENATURALNZEB, LIFE4DOÑANA, LIFE STEPAS, LIFE ZIMBRAL
- 2 PRIMA: MoreMedDiet, FIGGEN
- HORIZON 2020: MYRIAD-EU
- ✤ 3 HORIZON EUROPE: MARGIN UP, GOOD, AGROECOLOGY
- 1 DIGITAL EUROPE: Tech4EfficiencyEDIH
- 5 POCTEP: RAT_EOS_PC, TID4AGRO, BGREENER, SOS_PRODEHESAMONTADO, CI Montado-Dehesa

Infrastructure

- Advanced chromatographic systems.
- Pilot plants: High hydrostatic pressure equipment, IV range processing room, packaging machines, freeze dryer, experimental chambers with humidity and temperature control.
- Standard tasting room for sensory analysis of food.
- > Experimental stations and farms.
- Physical-chemical, instrumental and microbiological analysis laboratories.





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Thank you for your attention

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