

# PIMENTO: Promoting Innovation of ferMENTed fOods

Antonio Del Casale – MICROBION srl, Italy

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# MICROBION: CONTRACT RESEARCH ORGANIZATION



#### THE PLAYGROUND: MICROBIAL BIODIVERSITY

#### **Naturally Occurring**

- Biofilms, spores, heat-resistant
- Emerging resistant strains

Spoiling, outbreaks Product shelf-life

#### **Food Safety**

Product stability Challenge test

#### **Process Validation**

Risk assessment Genomics of Antibiotic Resistance

#### Health

Identification, rapid kits
Strain tracking even in blends

#### **Molecular Diagnostics**

#### **Industrial microbes**

- Selected, manufactured and applied
- Controlled spontaneous fermentation

Bio-fertilisers Bio-pesticides

#### Agriculture

Cultured food & beverages
Spontaneous Fermentations

#### Food

Probiotics, pre/post-biotics Microbiota in-depth analysis

#### Health

Bio-fuels, bio-plastics Bio-preservatives

#### **Green Chemistry**





















### THE EXPERTISE



Microorganisms Identification



Microorganisms Characterization



Microorganisms Validation



Challenge Test



Technical Problem Solving



Regulatory and Intellectual Property













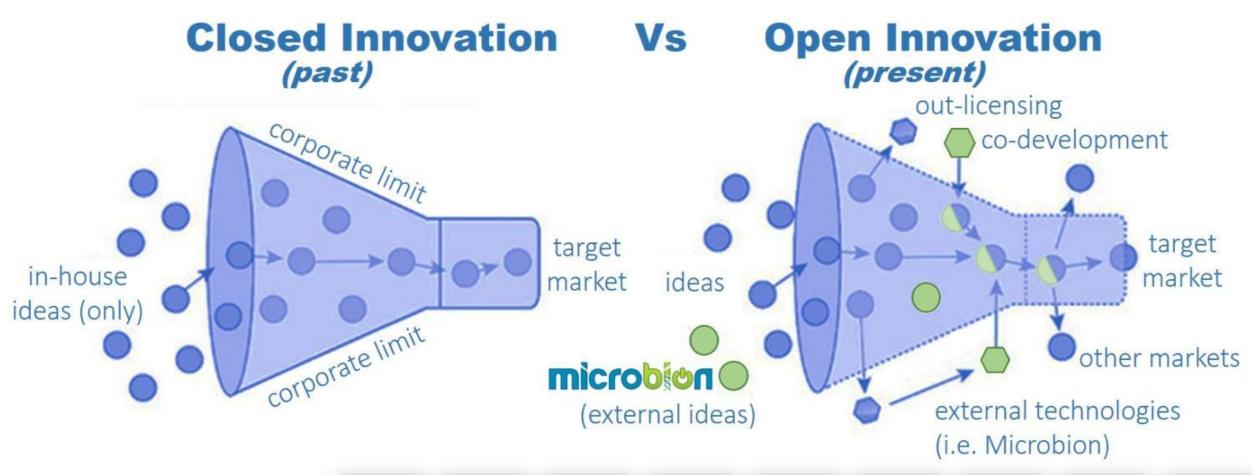








### THE OPPORTUNITY























# PIMENTO project structure

WG 2

Cartography of fermented foods in the diet of COST Countries

WG 1
Build
a multi-actor
operational
network

WG3

Health benefits and risks of fermented foods

WG 5

Dissemination, training and events

WG4

Federating scientists and Fermented Food producers













# **Next FFF**



**Session 1:** Fermented Foods in a whole diet

**Session 2:** Innovation in the production of FF and future perspectives

Session 3: Micro4Sustainability

**Session 4:** Fermented Food composition, bioactivity and health

**Session 5:** Biodiversity and Fermented Foods





UNIVERSIDAD DE MÁLAGA PIMENTO CEDETA COOPERATION



















## **PIMENTO WGs**

#### WG2

Cartography of fermented foods in the diet of COST Countries

- ✓ Mapping and cataloguing fermented foods
  - > Sub-groups for each country
- ✓ Highlighting the variability (species & matrices)
- ✓ Collect information on production and consumption

#### Leaders:

- Effie Tsakalidou
- Photis Papademas Group contact:
- ₩G2@fermentedfoods.eu

















# **PIMENTO WGs**

#### WG3

Health benefits and risks of fermented foods



#### **EFSA** projects

- ✓ FF & gastrointestinal symptoms
- ✓ FF & food allergies
- ✓ FF & immunity
- ✓ FF & type 2 diabetes
- ✓ FF & cardiovascular diseases
- ✓ FF & bone health
- ✓ FF & neurological disorders

#### Satellite projects

- ✓ Cataloguing bioactive compounds in FF
- ✓ FF for production of vitamins
- ✓ FF & nutrients bioavailability
- ✓ Health benefits of orphan FF
- ✓ FF as part of health diets
- ✓ FF in personalized nutrition
- ✓ Improving food safety of FF
- ✓ Safety and functionality of novel FF
- ✓ Functional valorization of food byproducts by fermentation

#### Leaders:



Smilja Todorovic Group contact:

₩G3@fermentedfoods.eu















# PIMENTO WGs

#### WG4

Federating scientists and Fermented Food producers



#### Leaders:

- Antonio Del Casale
- Marie C. Champomier-Vergès Group contact:
- ₩G4@fermentedfoods.eu















# WG4 will build bridges











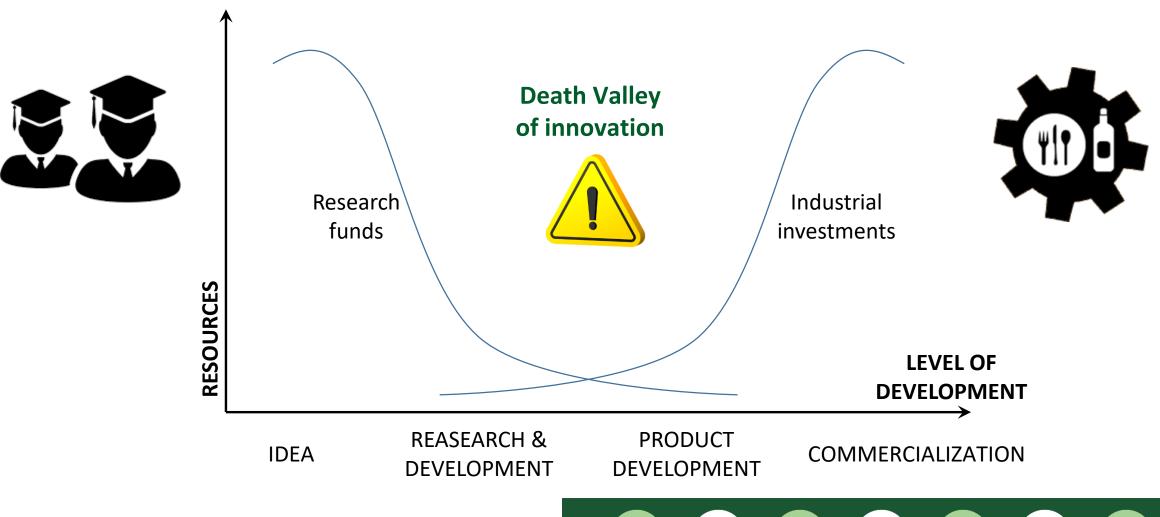








# WG4 will build bridges



















# WG4 tasks

- > Task 4.1 Identify generic bottlenecks to innovations in FF by producers (especially SMEs) and remediating measures
- > Task 4.2 Capacity building of producers to boost knowledge and resources

> Task 4.3 Establishment of the first industrial cluster on FF to boost innovation beyond the COST initiative













# Task 4.1 Identify generic bottlenecks to innovations in FF by producers (especially SMEs) and remediating measures

- > Identification of existing bottlenecks to further innovation in FF
- > In depth interviews with FF opinion makers/experts/associations
- Establishing a draft <u>position paper</u> (to be shared with a wider group of SMEs and industry actors)
- Publish the paper on high impact factor journal and discussion with EU commission and national policy makers



# Task 4.1 Identify generic bottlenecks to innovations in FF by producers (especially SMEs) and remediating measures

- •Strategy: a survey to COST countries FF companies
- •Three thematic areas and sub-groups created
- ✓ Regulatory issues
- √ Food Safety issues
- ✓ Technology & Processing issues
- •Elaboration of a questionnaire
- √ 60 questions in 3 sections
- √ 7 languages (+2 in progress)
- ✓ From April 5<sup>th</sup> to September 30th







1st WG4 (in person) meeting , Milan 26-28 September 2022





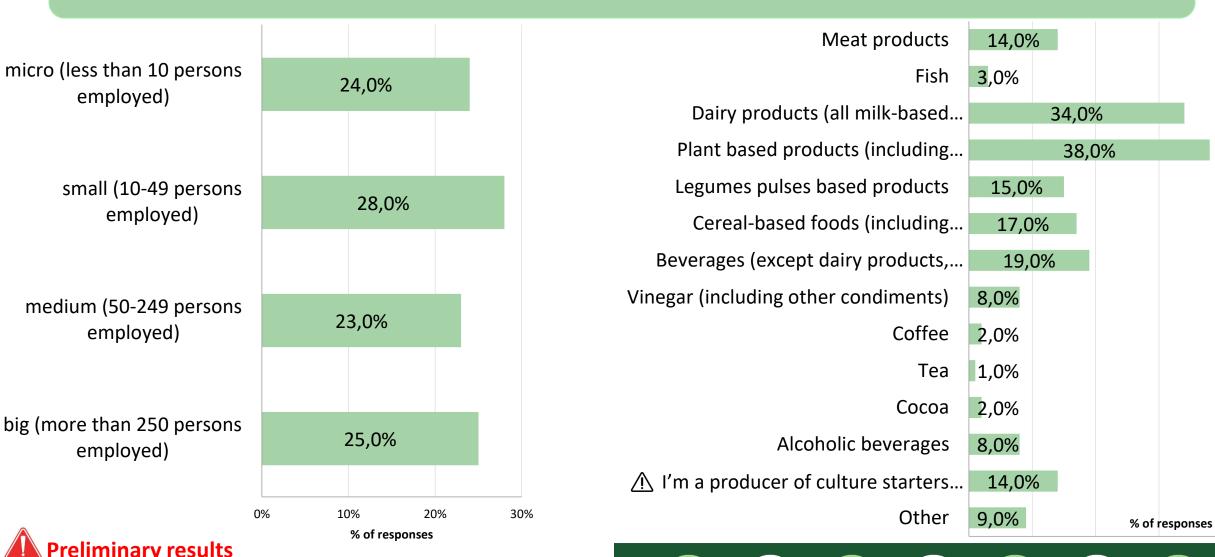








## Respondents profiling











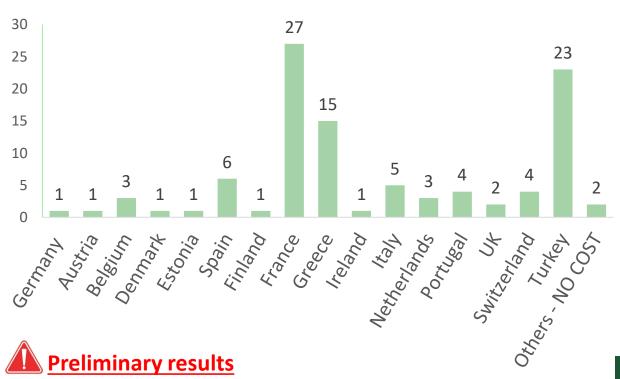






## Respondents profiling

102 respondents today Need >200 respondents!!!







## **Missing COST countries**

Albania, Algeria, Armenia, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Georgia, Hungary, Iceland, Latvia, Lebanon, Lithuania, Luxemburg, Malta, Marocco, Moldova, Montenegro, North Macedonia, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Ukraine; Israel, South Africa













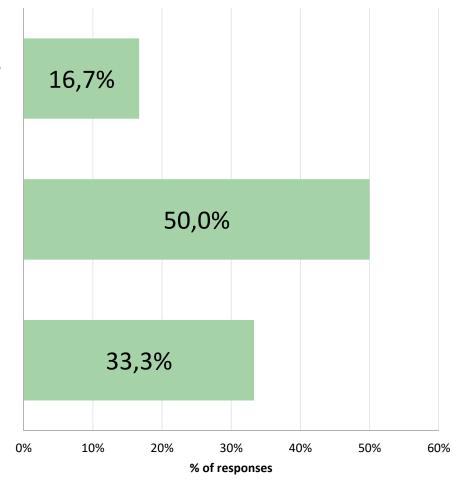


# R.10: If your innovative product/process may fall under the "novel food regulation", do you take steps to obtain such approval?

Yes, because novel food regulation brings benefits to my product

Yes, but I would try to avoid the novel food classification

No, I avoid to innovations that might fall under the novel food regulation









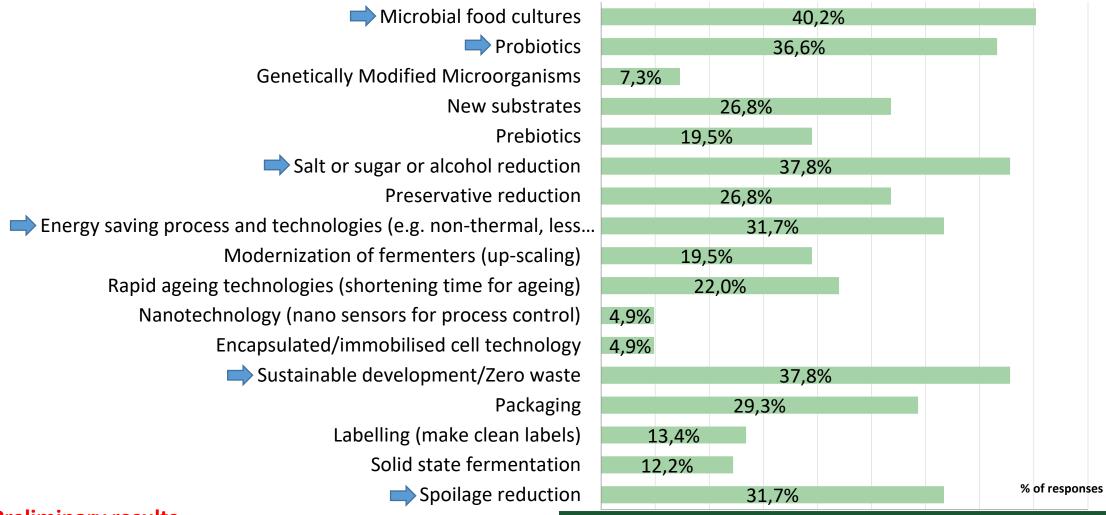








# T.4: In the next 5 years, in which field will you focus your innovation? Select top 5 (or less) innovation approaches



















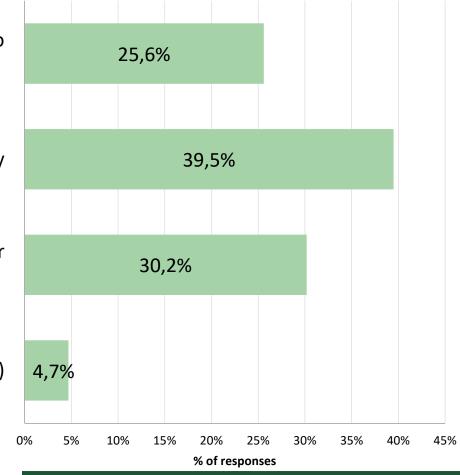
# S.7: Is the risk of new/potential safety issues preventing or limiting your motivation to make innovation?

Yes, new/potential safety issues can lead to avoid that innovation

Yes, but we pursue innovation anyway

No, new/potential safety issues do not limit or prevent innovation

Other (add free text for comments)





















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### **WG4 Co-leaders**

- Antonio Del Casale, MICROBION
- Marie C. Champomier-Verges, INRAE MICALIS Institute

### Regualtory issues sub-group

- Patrick De Boever, Hasselt University
- Frederic Borges, Universitè Lorraine

### Safety issues sub-group

- Sebnem Budak, University of Ankara
- Jerome Mounier, Université Bretagne Occidentale

## Tech & Processing issues sub-group

- Fani Mantzouridou, Aristotle University Thessaloniki
- Juana Frias, ICTAN-CSIC

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# **THANK YOU!**

WG4@fermentedfoods.eu

https://fermentedfoods.eu





















