

14<sup>th</sup> CDTI - NEDO Joint Workshop  
“Food Technology”  
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# Multiplying value through AI-driven fermentation

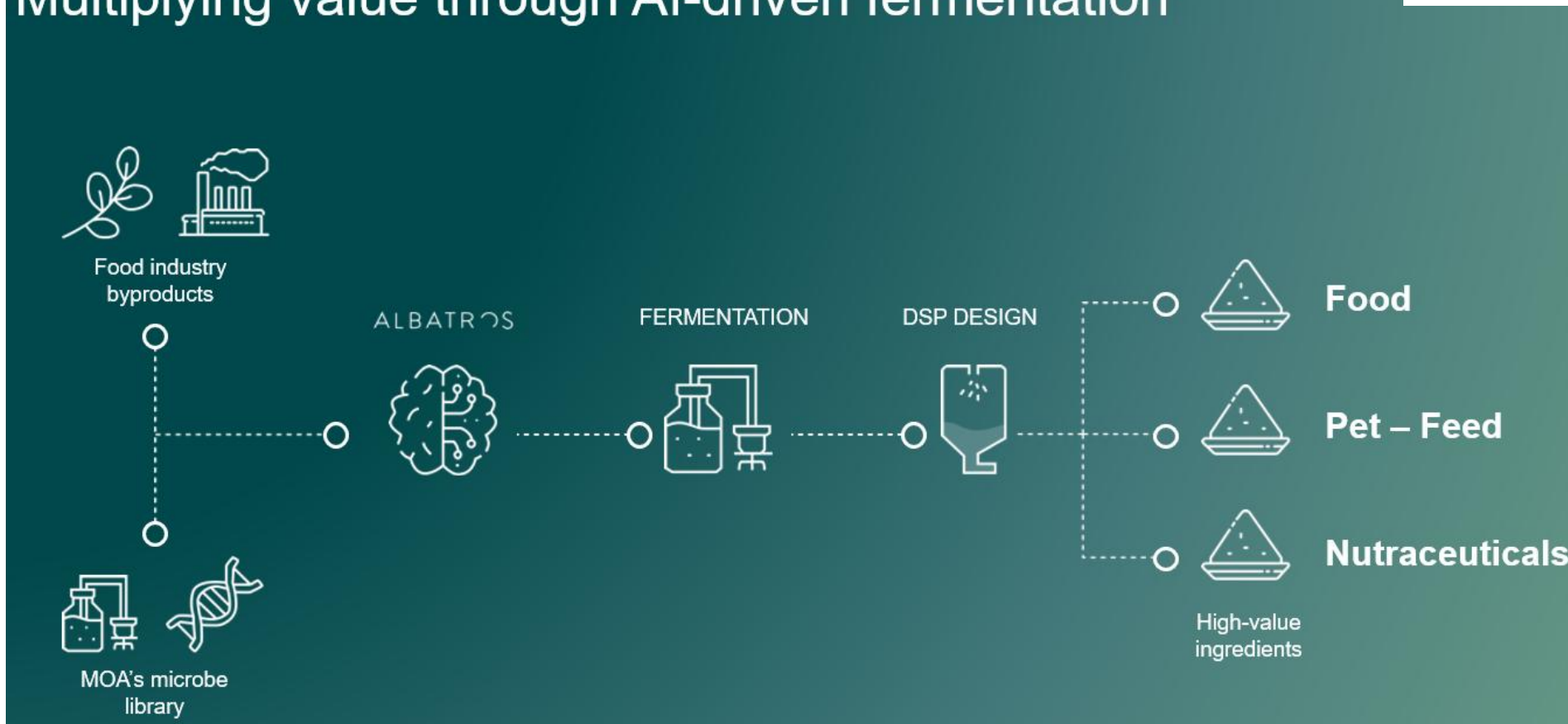
**BOSCO EMPARANZA**  
Co-founder and CEO  
MOA Biotech, S.L.



# Profile of Organization



## Multiplying value through AI-driven fermentation





# Products and services



## What we offer our customers and partners



### Ingredients

Benefits in nutrition, functionality, and health.



### MOA Box™

Starch and starch-rich byproduct valorization via MOA's technology.



### Custom co-developments

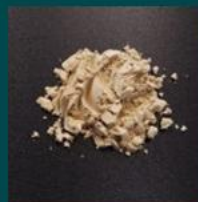
Customized solution to valorize specific byproducts into tailored ingredients.



# Products and services



## Proprietary ingredients: inactive yeasts



MOA YEAST

**Umami & functional enhancer**  
Improves flavor, reduces sodium, eliminates off-notes.  
Scaled to 120,000 L.



MOA Q5

**Egg replacer/ reducer.**  
Emulsifier, stabilizer. Replaces pasteurized and hydrolysed egg.  
Substitutes E-471.  
Scaled to 10,000 L.

Key Benefits

Not Novel Food (EU)

GRAS (US)

Labeled as yeast

Feed catalogue

Vegan

Allergen-free

Applications



Our goal is to take formulas to the next level, providing **nutrition, taste, functionality.**



# Main challenges and solutions



MOA is enabled by Albatros, our proprietary AI technology

## What it does

- **Optimizes bioprocesses** to transform raw materials and side streams (e.g. starch) into high-value ingredients.
- Integrates **biotechnology**, **data science**, and **process engineering**.

## How it works

- Simulates up to **300 bioprocesses/hour**
- **Tests** strain-substrate process combinations
- Identifies the **optimal configuration**

## Why it matters

- **Accelerates** ingredient development
- **Optimizes** for technical, economic, and environmental performance
- **Cuts** time, costs and risk



# Ideas for a Japan – Spain collaboration



- Collaborate with medium and large companies to which we license our technology.
- We have identified significant potential for upcycling sugar byproducts and starch-rich byproducts.
- Collaboration with Krones





MOA  
FOODTECH

**Thank you for your attention**

Bosco Emparanza | Co-founder & CEO of  
MOA