

The role of gastronomy in the transition to a more sustainable food system

Paula Torán Pereg. Researcher and PhD candidate.

Effost. WG Sustainable Food Systems

Gastronomy as an engine of change

13th May 2022



BCC Innovation: Technological Center in Gastronomy



BCC Innovation: Technological Center in Gastronomy

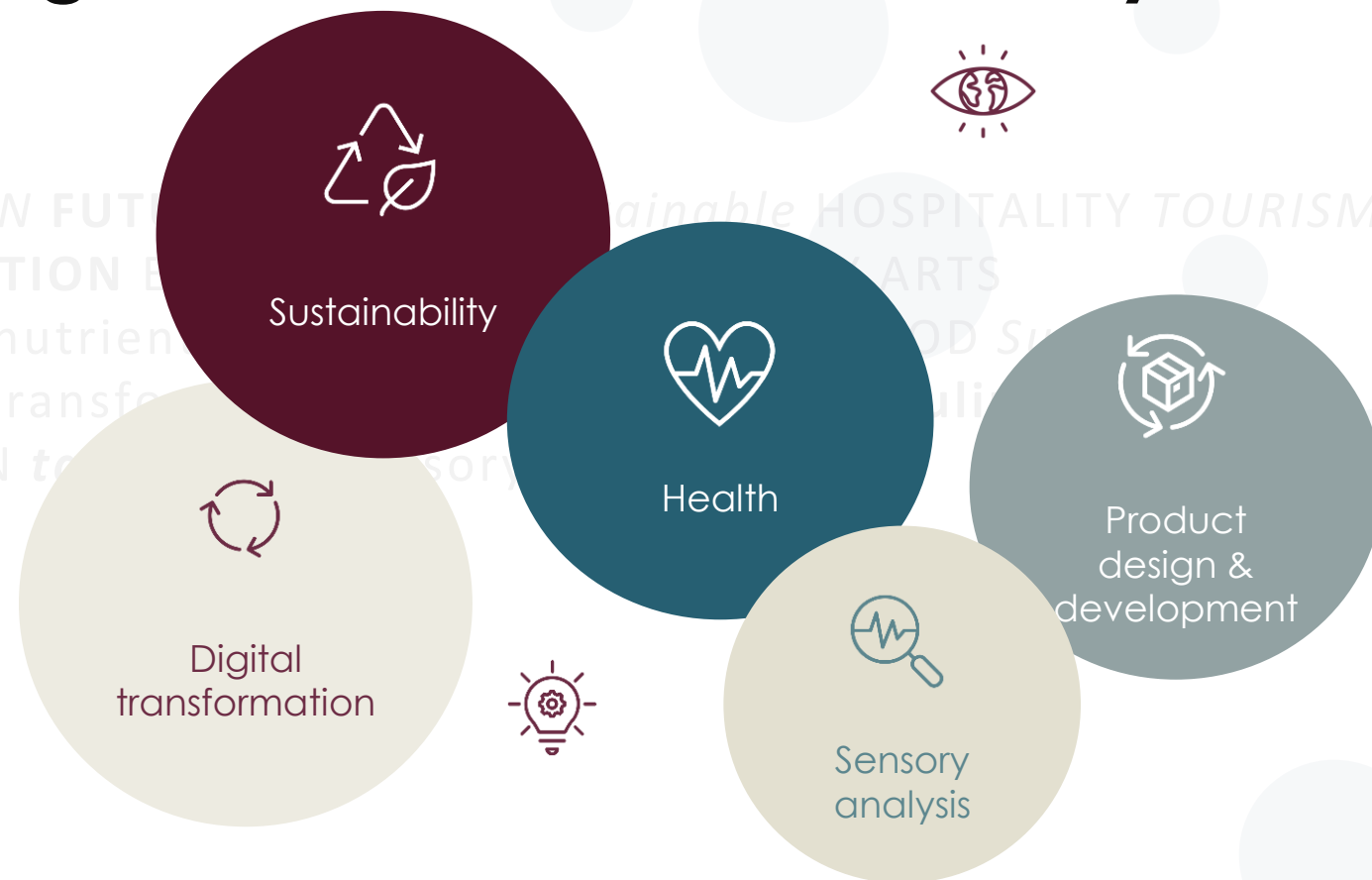
i. Culinary research and innovation - new products development, new ingredients search, transformation ... looking for a healthy, sustainable, and delicious future food system.

ii. Sustainability – boosting sustainability in gastronomy sector: developing circular economy strategies, eco-design of foods, etc.

iii. Personalized gastronomy - the relationship between personal characteristics (e.g.: genetics, microbiota) and their specific food related needs.

iv. Sensory Analysis & Consumer behavior – the individual perception of the different sensory food properties (influenced by e.g.: genetics or cultural characteristics) and the effect of consumption context.

v. Digital transformation of the Food Sector- new tech-products development, assessment and adaptation of existing technologies for gastronomy.



BCC Innovation: Technological Center in Gastronomy

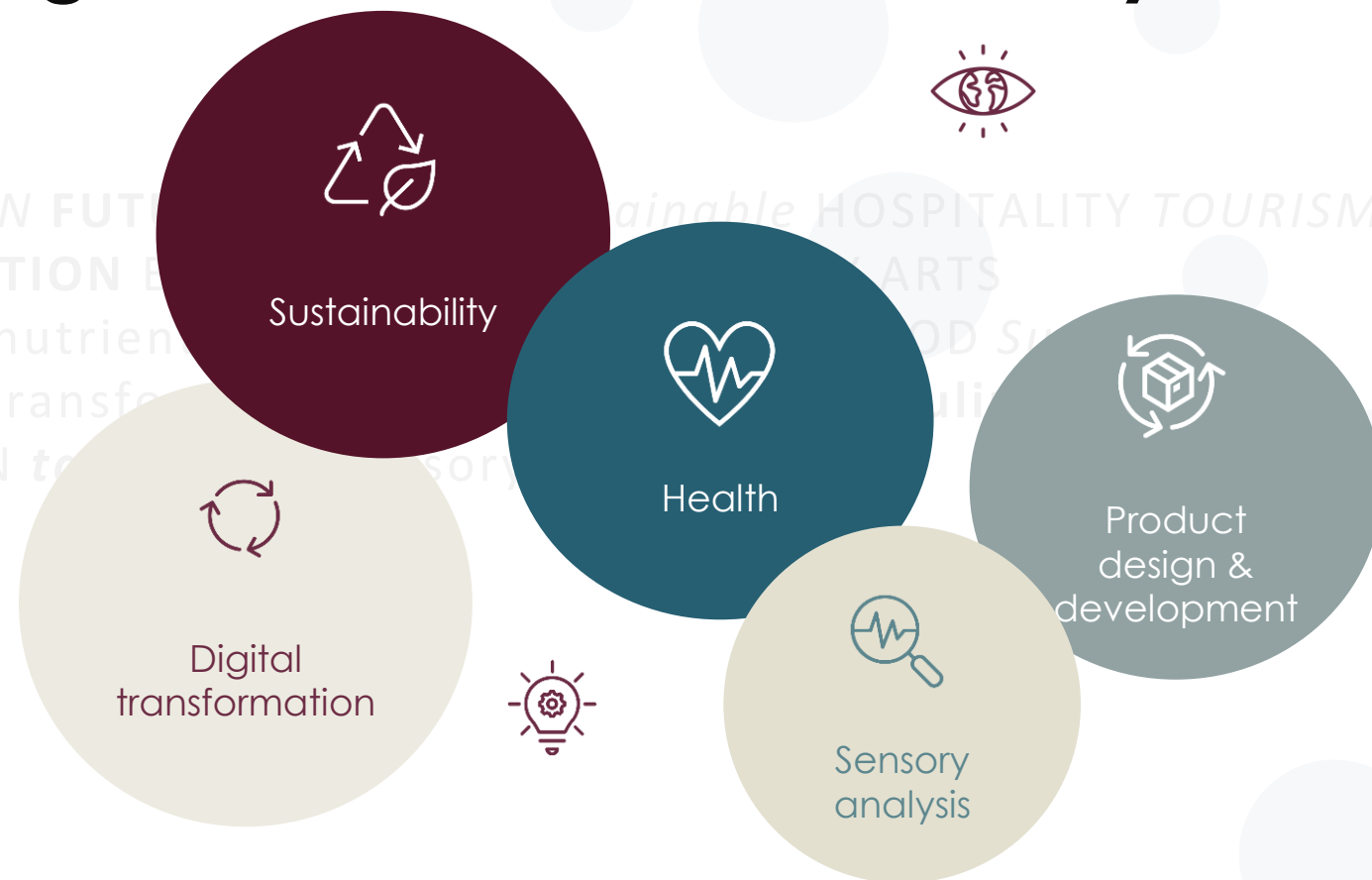
i. Culinary research and innovation - new products development, new ingredients search, transformation ... looking for a healthy, sustainable, and delicious future food system.

ii. Sustainability – boosting sustainability in gastronomy sector: developing circular economy strategies, eco-design of foods, etc.

iii. Personalized gastronomy - the relationship between personal characteristics (e.g.: genetics, microbiota) and their specific food related needs.

iv. Sensory Analysis & Consumer behavior – the individual perception of the different sensory food properties (influenced by e.g.: genetics or cultural characteristics) and the effect of consumption context.

v. Digital transformation of the Food Sector- new tech-products development, assessment and adaptation of existing technologies for gastronomy.



Problematic

- Demographic growth
- A depletion of resources
- Large amount of waste
- A global degradation of the environment

CLIMATE CHANGE:

- Rising temperatures and sea levels
- Changes in rainfall patterns and water temperatures
- Ocean acidification
- More frequent and intense extreme weather events



Food system

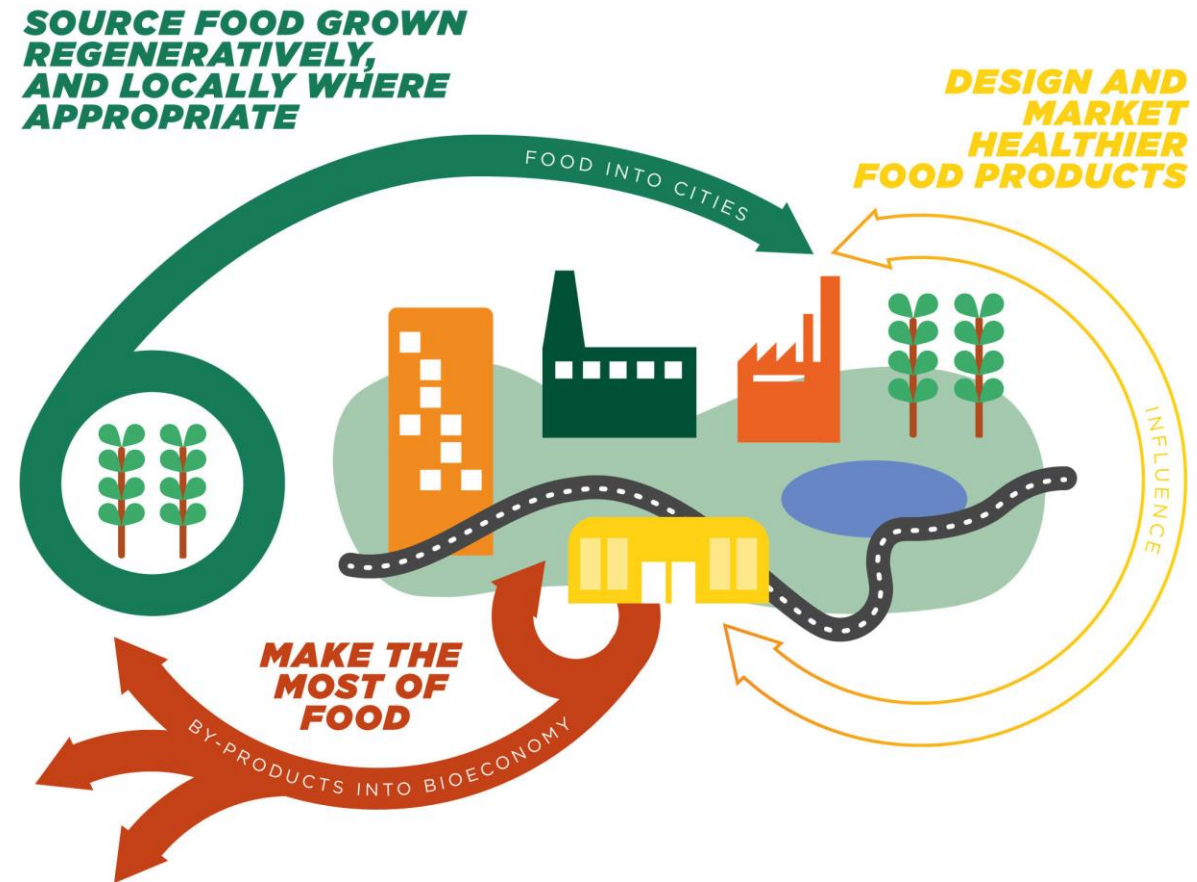


Negative impacts of food systems over last century:

- **Loss of cultural and ecological diversity**
- **Marginalization** of large groups farmers and other rural populations
- **Erosion** of every-day **culinary culture** and **people's knowledge of food preparation**
- Increased consumption of **ultra-processed food**
- Rapid rise in **obesity** and associated **non-communicable diseases** (NCDs)
- Production of **greenhouse gas (GHG) emissions** that contribute to **climate change** (20-26% by FS)
- Consume **1/3 of all the energy available** in the world.
- **1/3** food wasted

Circular Economy - Ellen Macarthur Foundation

“Changing our food system is one of the most impactful things we can do to address climate change, create healthy cities, and rebuild biodiversity.”

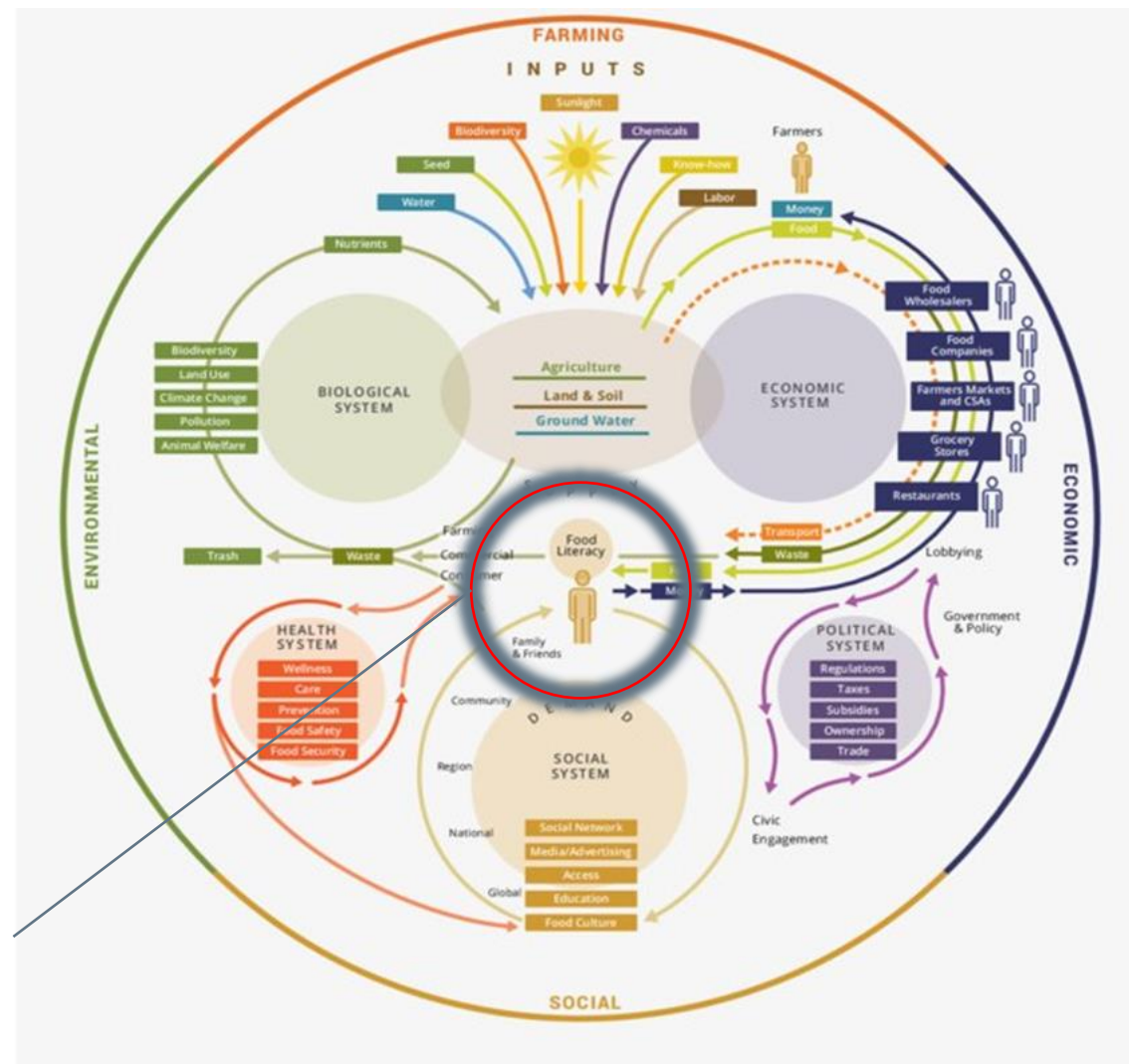


The role of gastronomy

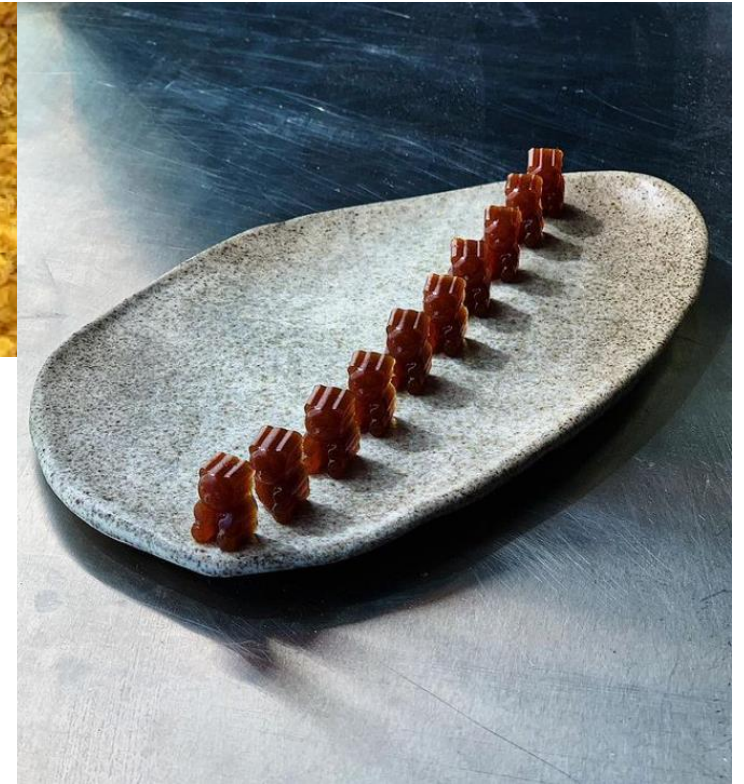
“Gastronomy has an increasing potential to accelerate change and influence both the production and consumption side of the food system.

It can increase the efficiency of food supply chains and support sustainable food production practices, while on the other hand it can promote sustainable consumption, drive dietary change, influence eating habits and shift consumer preferences”

Gastronomy



Food waste valorization



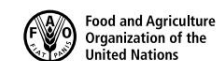
"Tripes". Mugaritz restaurant.

Gummy bears made from citrus and sea buckthorn pulp. Amass restaurant.

Gastronomy

Transforming the Food System through Sustainable Gastronomy - How Chefs Engage with Food Democracy

Leah Richardson & Fredrik Fernqvist
Published online: 01 Apr 2022



Chefs AS AGENTS OF CHANGE



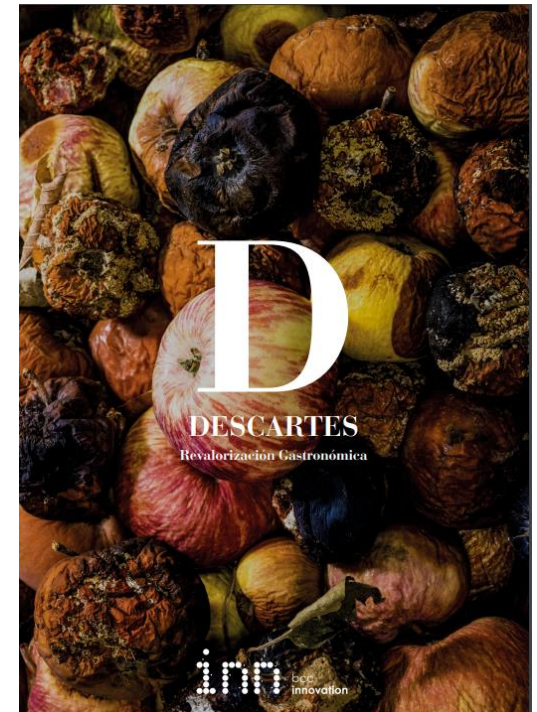
FAO : “tapping into the influence of consumers and collective demand” will “transform agri-food systems, making them more inclusive, resilient, and sustainable.”

BCC Innovation & Research initiatives

- Gastronomic food waste valorisation
- Finding circular strategies to implement in the HORECA sector
- Studying the regional food system to improve its sustainability

Gastronomic food waste valorisation

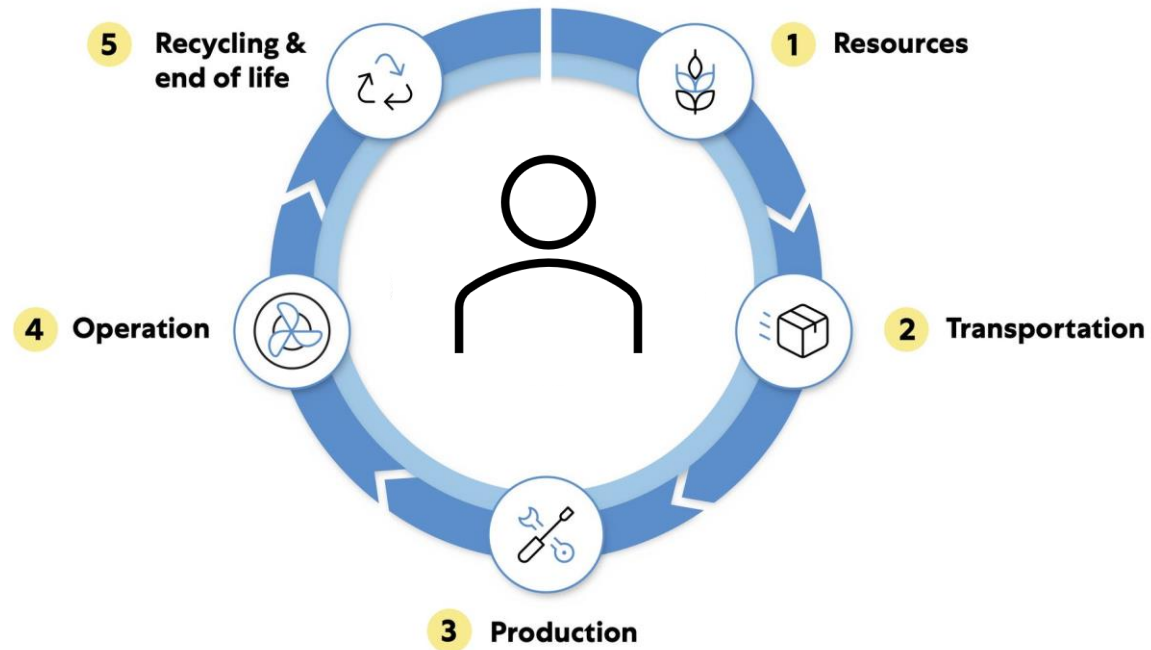
Development **new food products with high gastronomic value** from food waste for food companies.



Miso tartalette and stale bread sauce by Blanca del Noval. So good magazine (2019).

Gasto-LCA

Aim of the project: Development of a **methodology** that integrates **consumer-centered design** and **life cycle analysis** to revalue agricultural surplus Espelette peppers.



Funded by:



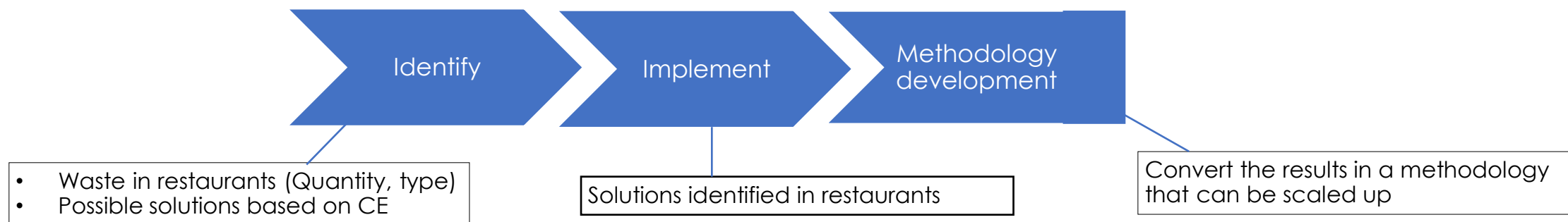
Collaboration:



Circular economy in the HORECA sector

Aim of the project: study on the **reduction of the environmental impact of waste** generated in restaurants based on different circular solutions

- Test a methodology in three restaurants (Akelarre, Espazio Oteiza, LABe) to analyze the environmental impact of their activity (LCA), focused on food waste
- Establish improvement objectives
- Incorporate circular economy processes to reduce the environmental impact of waste



Gipuzkoa's Food system analysis (2021-2024)

Aim of the project: to identify actions that can guide stakeholders in the **transition towards a sustainable food system**

- Food types and quantities produced within the region of Gipuzkoa, and the adjacent regions (Bizkaia, Araba, Navarra; Iparralde)
- Identify the potential for prevention and redistribution
- Develop circular economy strategies



Funded by:



Concluding remarks

- The global food system contributes significantly to climate change and environmental degradation
- New dynamics are needed to sustainably transform the system, but we still have a long way to go
- Gastronomy can be a tool to engage and motivate people, find new forms of collaboration and ways to promote sustainable food practices, and improve food values and sustainable food behaviors

Thank you!

ptoran@bculinary.com

www.innovation.bculinary.com

