

Enabling Technologies For a Wider, Data-Based Implementation Of Regenerative Agriculture In Europe













Kick-OffAgenda

O1 EIT Food and Impact Funding Framework

"Cultivating Resilience:

Regenerative Agriculture"

Report Highlights

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Tech4RegenAg
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Cultivating Resilience:
Regenerative Agriculture"
Report Highlights



**Eva Hoogstins**Consumer Researcher, EIT
Food Consumer Observatory



# Tech4RegenAgContext



**Gonçalo Amorim** CEO, BGI



### VISION & MISSION



### Vision

Transform European agriculture with innovative, data-driven regenerative practices for a sustainable future.



### **Mission**

Empower the agricultural sector with tools and knowledge for effective regenerative agriculture implementation.







### CONTEXT



### **EU Green Deal Targets**

Convert 25% of agricultural land to organic farming by 2030.



### **Environmental Impact of Conventional Farming**

Soil degradation, biodiversity loss, water pollution, and destruction of ecosystems.



### **Dependency on Chemicals and Monoculture**

Reduction by 50% the use chemical pesticides



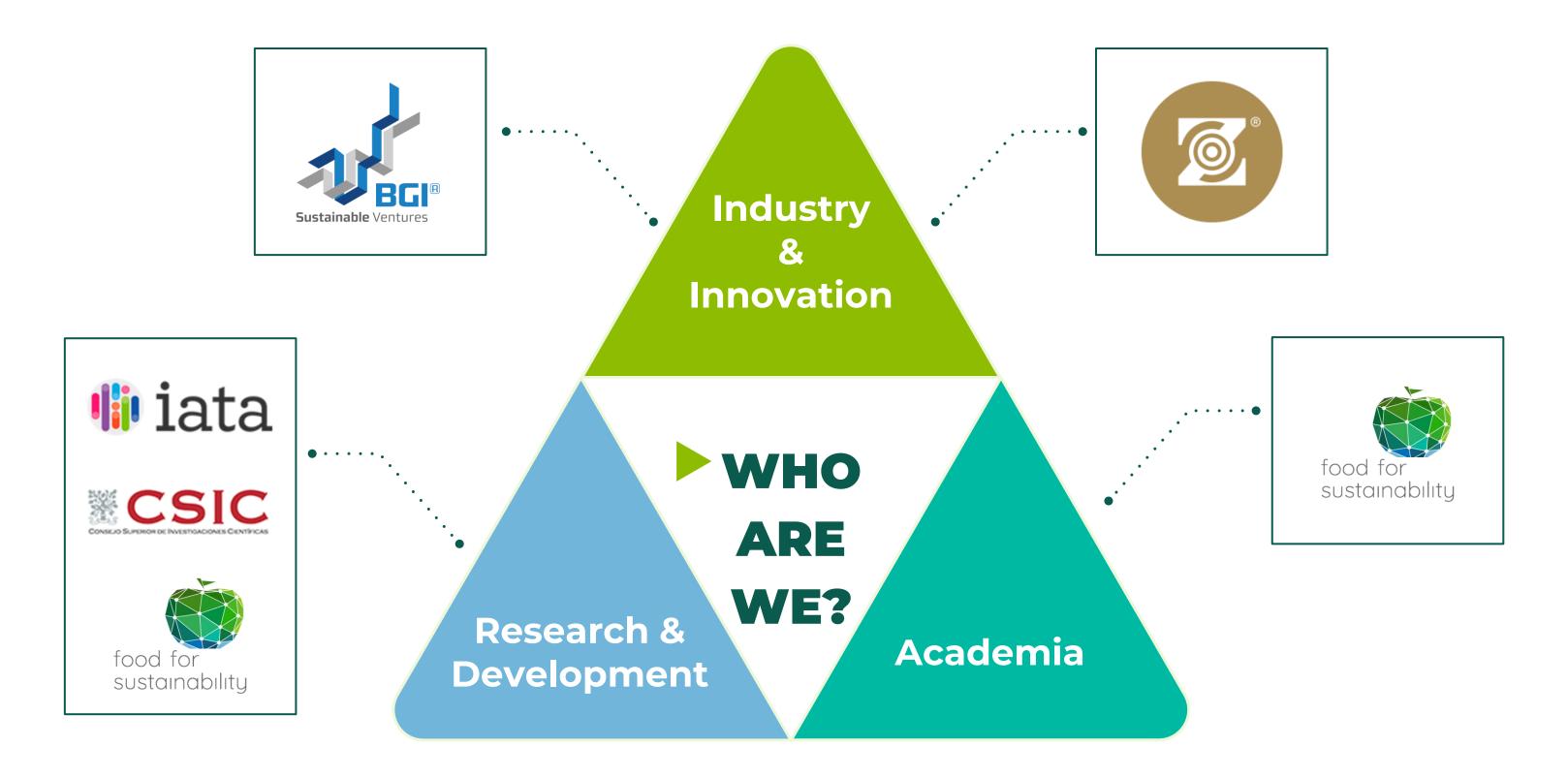




04

> Tech4RegenAg
Partners

# Consortium







BGI is a world-class startup accelerator and powerhouse, equipping innovators from all over the world with the right knowledge, tools and networks to succeed, while creating a more sustainable and innovative world for all.

Sustainable Ventures is our signature.
Sustainability is our DNA.

With over a decade of experience, BGI is committed to creating value from a sustainability perspective:



**We help** startups and deep-tech SMEs to achieve their business, economic and environmental sustainability goals.



**We empower** innovators with the knowledge and resources needed to lead sustainable innovation.



**We create** synergies and collaboration opportunities between different stakeholder (startups, corporate, SMEs, universities, accelerators and incubators, research centers, public bodies).





- Food4Sustainability CoLAB (F4S) is a not-for-profit collaborative laboratory dedicated to innovation in sustainable food production and consumption.
- F4S tests and implements novel approaches to food production systems that positively impact soil and plant health, carbon sequestration and efficiency in the food value chain.

### Circular economy

Circular production systems

Aquaponics

By-products valorization

### Sustainable agriculture

Sustainable farming demonstrators

Production system conversion

Regenerative agriculture

### Territory

Endogenous resources

Ecosystem services

Water management

### **Functional Nutrition**

Functional Foods

Personalised diets

Healthy eating

### Innovation, Entrepreneurship & Capacitation

i-Danha Food Lab (anual event)

Academy

Open Innovation

### Primary activities

- R&D (collaboration)
- Education



### Knowledge transfer

- Demonstrators
- Pilots
- Dissemination

### **Decision-makig**

- •Science and technology
- Soil Health and Function Lab







CSIC is the Spanish Council for Scientific Research. The largest public institution dedicated to RESEARCH in Spain with more than 120 institutes.

The research team from IATA-CSIC has wide experience in food sensory evaluation and has extensively worked in consumer behaviour measurement to understand drivers of consumer acceptance and food choice to build innovative strategies in scientific projects and projects in collaboration with industry.

The IATA-CSIC team uses classical approaches (tasting and questionnaires) and new implicit techniques (face reader, eye-tacking, galvanic response and heart rate) to understand consumers response to product characteristics and information in purchasing and consumption contexts.











At Zertifier, we use Web3 technology to enhance customer engagement by bridging physical and digital worlds.

Our solutions, leveraging IoT, blockchain, and smart contracts, ensure secure and transparent data management.

Our intuitive web apps simplify access and certification of data, promoting transparency and security.

Web3 and federated data spaces allow safe, decentralized information sharing, empowering users with control and facilitating open innovation.

Tech4RegenAg
Actions & Impact



### **Policy Review**

**Consumer** awareness

Business Creation and relation with Corporates



**Education** and Training

Pilot design and Implementation

Data-driven verification of RegenAg benefits





# **Policy Review**



### **Literature Review**

Compile and review existing literature in Regenerative Agriculture Policies globally

Launch target advocacy campaigns to educate policymakers

Engage with Citizen
Participation Forum and
Consumer Observatory to
draft Policy
recommendations

Leverage project results to demonstrate RegenAg's positive impact



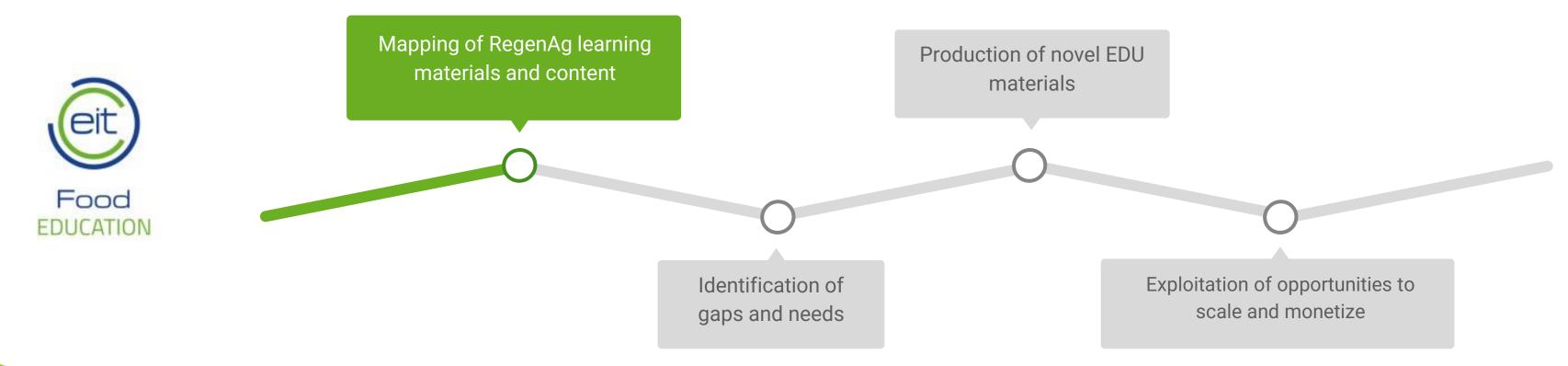




# Sustainable Ventures

## **Education and Training**

• Support **EIT Food Education** and Regenerative Portfolio in exploiting the knowledge gathered in 5 years of EIT Food regarding sustainable Agriculture









# **Education and Training**

• **RegenAg** RIS Fellowships and Talents Activity line.

Explore funding opportunities for scaling this activity





Involve RegenAg companies as hosts



Support internship on RegenAg lighthouses









## Pilot design and Implementation

- Pilot hosts engagement (F4S)
  - Milk producers confirmed: Ilaçor (Terceira island, Azores) and Monte do Inglês (São Miguel island, Azores). Ongoing engagement with other milk producers
  - EIT Food East collaboration provided soil samples from Poland, Serbia, Hungary, Bulgaria and Czechia
- Pilot implementation and data collection (F4S, Zertifier)
  - Define and design pilots to be implemented
  - Develop protocols/methodologies for data collection
  - Execute the pilot studies according to the experimental design, ensuring adherence to the defined protocols at the selected test sites (F4S) and feed data into the Tech4Regen Database (Zertifier).









Soil sample collection, Azores





# Data-driven verification of RegenAg benefits

- Data integration (Zertifier)
  - Tech4RegenAg Database
    - Ensure the database is comprehensive (it should be a standard for how data will be stored in Europe), user-friendly, and ready for stakeholder access by September 2025
  - Tech4RegenAg Digital twin
    - Digital Twin Data Quality Check (ZERTIFIER): Validate the digital twin's data against real-world measurements and refine the model for accuracy.
    - Integrate the final validated data into the digital twin and make it available for user interaction by February 2026.









# **Business Creation and relation with Corporates**

- Develop a comprehensive map of AgTech startups and scaleups with technologies aligned with RegenAg
- Develop a marketing and strategy plan to involve the identified companies in Tech4RegenAg and connect them to EIT Food Education and Business Creation
- Support EIT Food Portfolio from Seedbed Incubator,
   Food Accelerator Network and Rising Food Stars



















### **Consumer awareness**

- Quantitative study of consumers perception of regenerative agriculture (iata-CSIC) in coordinate with EIT Food Consumer Observatory
- Conduct Sensory Evaluation of RegenAg products to determine the impact of regenerative agriculture practices on sensory profiles (iata-CSIC)
  - List of barriers and facilitators of consumer awareness and plan of intervention.
- Organize focus groups with producers and consumers and obtain co-creation ideas of labelling product conferring trust and interest of consumers (iata-CSIC- Zertifier)
- Create labels, symbols or other information support prototypes for informing about the regenerative agriculture practice. (iata-CSIC- Zertifier)
- Quantitative study to evaluate consumers perception of different labelling proposals and select the best option ensuring appropriate understanding of consumers and conferring trustiness and value to consumers.









# Expected Tech4RegenAg Impact

200+

Applications Tech4RegenAg Supported courses 100

Stakeholders involved

20+

Startups supported

6+

Dissemination activities

6+

Pilots implemented

250+

Farmers involved since 2024



# ► How to participate? Policymakers

Are you working on policy and would like us to support you?

### **Farmers**

Are you interested in applying for a pilot?

## **AgTech Startups**

Are you developing a technology that could be implemented in our pilots?

### Retailers

Do you want your suppliers to improve the sustainability of their milk products?

### Researchers

Do you want to be involved in our learning opportunities?



# Thank you!

Contact us: geral@bgi.pt









