# MUSAE

A HUMAN-CENTRED FACTORY FOR A FUTURE TECHNOLOGICAL SUSTAINABLE DEVELOPMENT DRIVEN BY ARTS









#### **MUSAE SCOPE**

#### **FOOD AS MEDICINE**

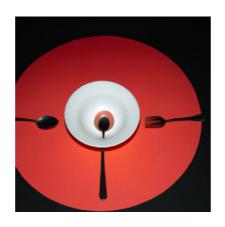


The chains of production, supply, consumption and waste have an immense impact on both **people's health, resilience and well-being**, as well as on the **planet's well-being** and environmental systems.

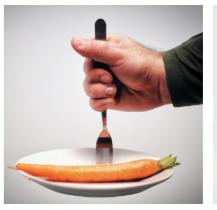
- The primary aim of MUSAE project that goes under the broad theme of "Food as Medicine" is to **rethink current food systems**and practices by imagining alternative approaches and new possibilities for human and planetary health.
- MUSAE will pilot a new collaboration model - MUSAE Factory model, based on creativity, art-driven innovation and futures thinking to guide tech-driven businesses in envisioning new solutions to improve the sustainability of the food value chain on different levels.
- The future of food centring around care, equity and sustainability is possible if we dare to imagine and build them together.













## **MUSAE AMBITION**

# MUSAE

#### **DESIGN FUTURES ART-DRIVEN INNOVATION IN DIGITAL INNOVATION HUBS**

By developing and validating the **MUSAE Factory model**, MUSAE's ambition is twofold. First, it aims to provide guidance to European Digital Innovation Hubs (DIHs) on **how an art-tech collaboration could be set up** in a product-oriented shape. Second, MUSAE aims to equip artists with a DFA method to develop a **strategic approach to innovation with companies**.

- MUSAE is a project that will define an innovative model to integrate artistic collaboration in the (European) Digital Innovation Hubs (E-DIHs) through a Design Futures Art-driven (DFA) method to help companies to anticipate innovative products and services for the future of food to improve human and planetary well-being.
- An innovative **Design Futures Art-Driven (DFA) method** conceived as a tool for artists and SMEs to explore the future of food through design futures methods and art thinking, as well as stimulate innovative and creative uptake of technologies in the society.

## **MUSAE - WHAT WE WILL DO**



TWO ART-TECH RESIDENCIES + PROTOTYPING PHASE

MUSAE will implement two art-tech residency programmes for artists and SMEs, followed by the prototyping phase, where industrial prototypes will be developed.

1

First art-tech residency programme will involve 12 artists who will produce scenarios to envision the future potential and challenges of Food as Medicine topic. Alongside, the artists will produce artworks as representations of scenarios, as part of the output of the first residency. Two artists will be from Serbia.

2

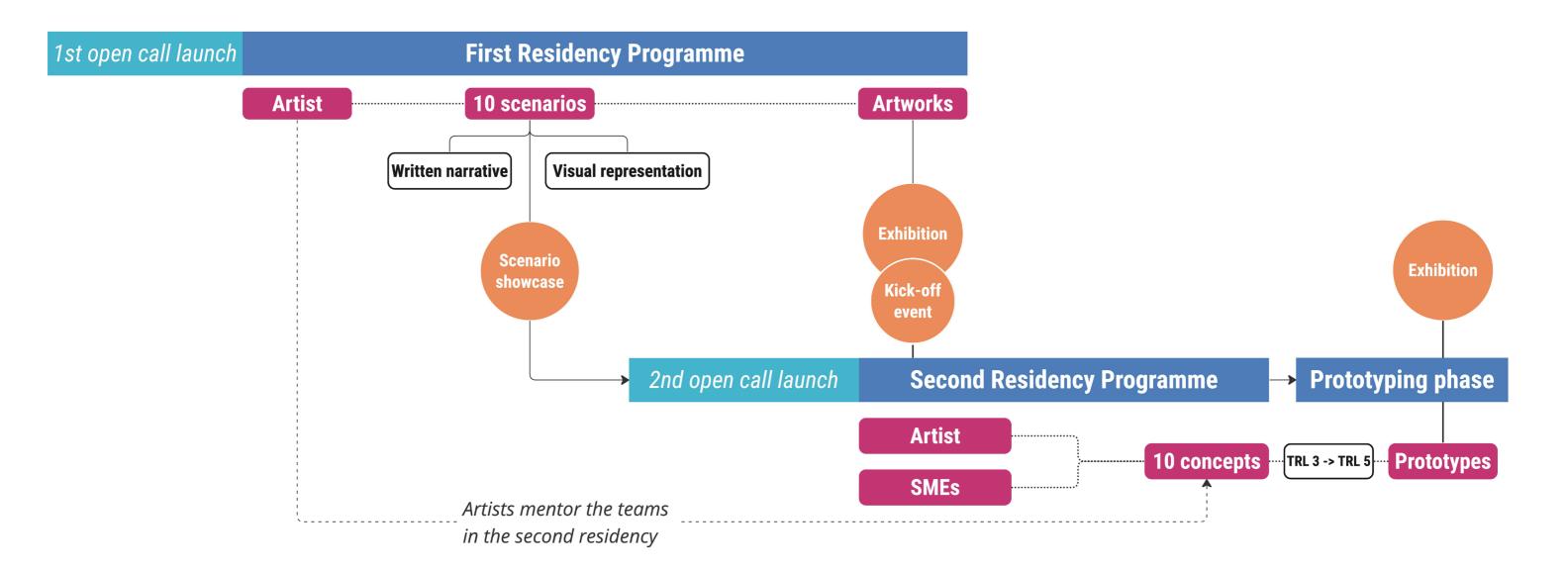
Second art-tech residency programme will involve the teams of 11 industrial end-user/
SMEs and 11 artists that will work together on developing concepts based on previously developed scenarios with the application of one or more of three technologies: Artificial Intelligence (AI), Robotics or Wearables.

3

Lastly, the **prototyping phase**, following both artistic residencies will be dedicated to supporting and mentoring teams of end user/ SME and artist from the second residency to **develop industrial prototypes** of their concepts.

## **MUSAE PROCESS**





## **MUSAE - FIRST OPEN CALL**



In the **First open call**, MUSAE is looking for artists who can **provide critical reflection**, **envision future potential** and **challenges** of the topic of Food as Medicine by **producing future scenarios**, along with the artworks representing them.

Selected artists will participate in the **first MUSAE residency programme**, where by following and **applying the DFA method** and **receiving mentoring support**, they will develop future scenarios as critical visions of the future, with reflection on one of technologies – AI, Robotics and Wearables.

12 Artists3 Thematic tracks3 Technologies

→ Call opening: October 2023 Call closing: November 2023

#### First Residency Programme process



## **MUSAE - THEMATIC TRACKS**



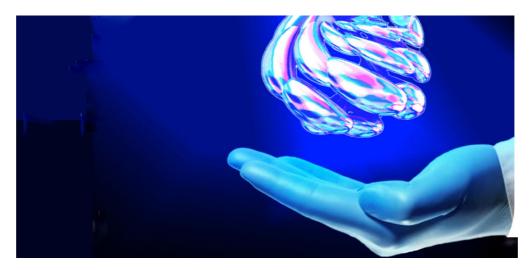
The goal of the residency programme is **critically explore** and **create future scenarios** based on one of the three thematic tracks, which are recognized as emerging trends

## REDUCING CARBON FOOTPRINT IN DIETARY BEHAVIOUR



The population of the world is expected to rise to between 9.4 to 10.2 billion by 2050. With this increasing population comes an **increasing demand for food**. In order to provide enough nutritious food for future generations we must **change our dietary habits** and **switch to more sustainable eating patterns** *How can we switch to more sustainable diets while meeting our nutrient requirements?* How can we produce foods with lower carbon footprints? Are new meat alternatives healthy?

# ROLE OF FOOD IN HOLISTIC HUMAN WELL-BEING



Holistic health refers to the health of the whole person, encompassing five key dimensions - physical, emotional, social, mental, and spiritual wellbeing. The intake of certain nutrients, food groups, and dietary patterns positively influence health and promote the prevention of non-communicable diseases. Development of strategies that enable individuals to change their dietary behaviour and to promote a great awareness of the link between diet and health are needed. How can we enable people to make healthy food choices? Can we develop personalized approaches to enable people to make healthier choices? How can we develop new and innovative approaches to communicate the benefits of food?

# RETHINKING THE FOOD CHAIN IN OUR ENVIRONMENT



We need to **reshape food supply** chains to **stay resilient** during and beyond current environmental, political, and economic crises. Components of the food chain involve production, handling and storage, processing and packaging, distribution, retail, consumers, and waste. Can we develop new innovations to reduce food waste? Can short supply chains play a role? What innovations are needed to support food security for all?

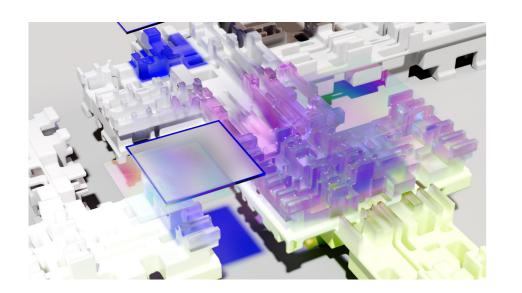
## **MUSAE - TECHNOLOGIES**



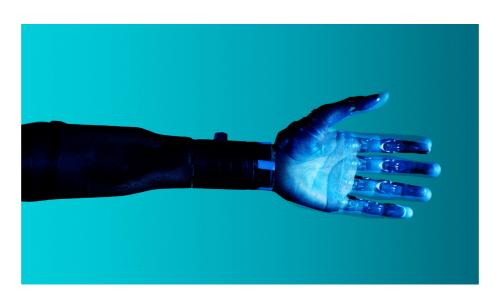
MUSAE will work with three technologies — Artificial Intelligence (AI), Wearables and Robotics — enabling participants to develop concepts and prototypes validated in industrially relevant environment.

The digital technologies will provide ground for experimentation and the development of new solutions for social and environmental challenges.

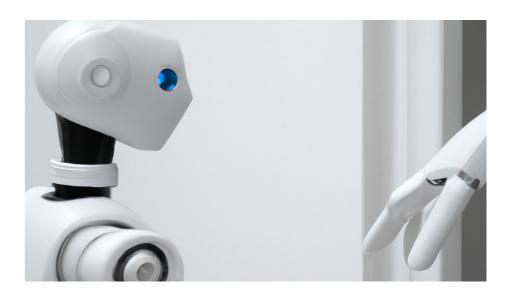
#### → ARTIFICIAL INTELLIGENCE



#### → WEARABLES DEVICES



#### → ROBOTICS



## **MUSAE - CONSORTIUM**

MUSAE consortium includes 9 partners from 6 European countries representing arts, design, technologies, industrial and scientific ecosystems:

Politecnico di Milano (Italy), Ab.Acus (Italy), Universitat de Barcelona (Spain) composed by UB-ART and UB-Tech, MADE Competence Center I4.0 (Italy), PAL Robotics (Spain), Gluon (Belgium), University College Dublin (Ireland), The University of Manchester (United Kingdom), University of Belgrade - ETF Robotics (Serbia)



















#### https://musae.starts.eu/

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