

# MUSAE

Human-centred factory for a future technological  
sustainable development driven by arts



# Agenda

15/05/23

h 11.00 Welcome [Aoife O'Gorman, UCD]

h 11.05 MUSAE: a human-centred factory for a future technological sustainable development driven by arts [Mida Fiore, Politecnico di Milano]

h 11.15 MUSAE application and residency expected results [Politecnico di Milano and University of Barcelona - ARTS]

h 11.35 MUSAE Open Call: how to submit a good proposal [Ottavia Villain, MADE]

h 11.45 Q&A



# MUSAE

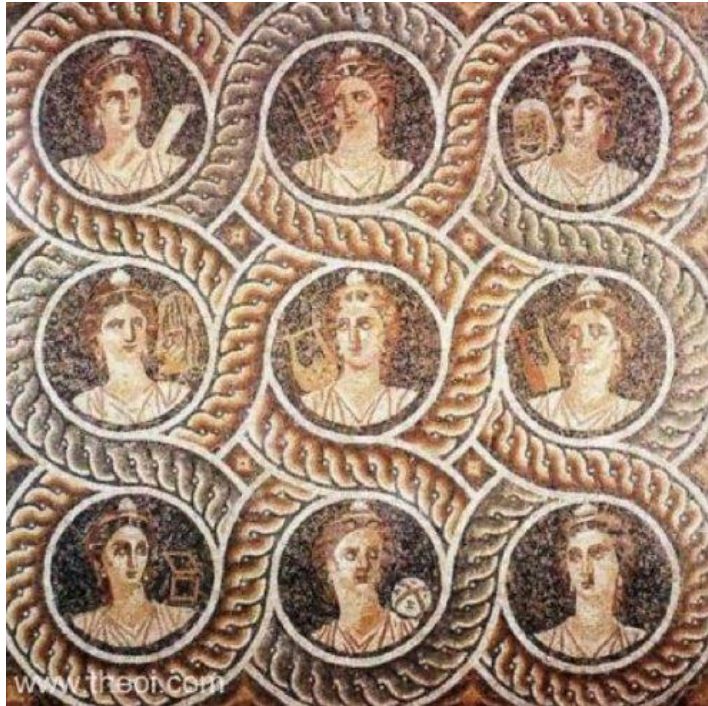
**MUSAE: a human-centred factory  
for a future technological  
sustainable development driven by  
arts**



MUSAE



# MUSAE: THE NAME AND LOGO



In ancient Greek religion and mythology, **the Muses** (in latin: Mūsae) are the inspirational goddesses of literature, science, and the arts. They were considered the source of the knowledge embodied in the poetry, lyric songs, and myths that were related orally for centuries in ancient Greek culture.

Portraits of the nine Muses, Greco-Roman mosaic from Cos, Archaeological Museum of Cos

# MUSAE CONSORTIUM PARTNERS

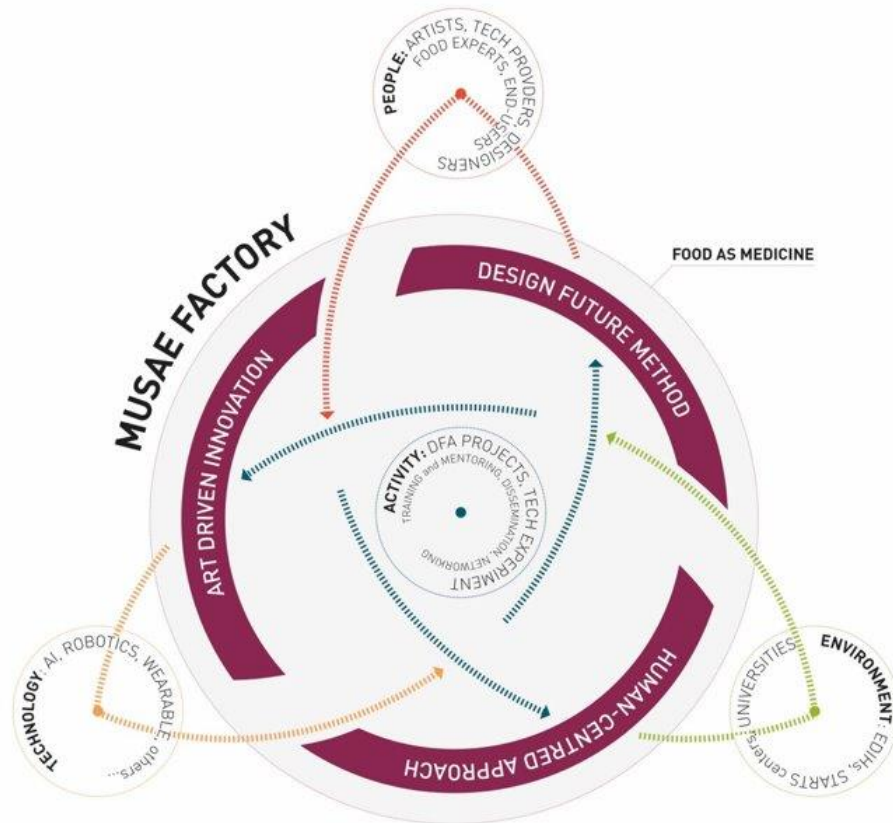


- POLIMI (Design) IT - Coordinator / Factory core methodology
- MADE (Competence Center) IT – Test before Invest – Factory exploitation
- University of Barcelona (Artificial intelligence) ES – Technology expert
- University of Barcelona (Fine Arts) ES – Expertise in art education
- PAL Robotics (Robotics) ES – Technology expert
- Ab.Acus (wearables for health & well-being) IT - Technology expert
- UCD Institute for Food and Health (Food and Nutrition) IE – Topic and trends experts
- Gluon (Art) BE – Platform for art, science and technology
- University of Belgrade - School of Electrical Engineering (Robotics) SRB - Technology expert

## *Associate Partner:*

- The University of Manchester Machine Learning & Robotics (Robotics) UK – UX Technology provider

# MUSAE FACTORY



MUSAE is an innovative **Human-Centred Factory** model to integrate artistic collaboration in the **(European) Digital Innovation Hubs (E-DIHs)** through a **Design Futures Art-driven (DFA)** methodology to help companies for a strategic approach to exponential technologies to anticipate innovative products and services for the **future of food** to improve human and planetary well-being.

*Three key elements:*

## People

Artists, Technologists, Designers, Food Experts, End-users, Companies

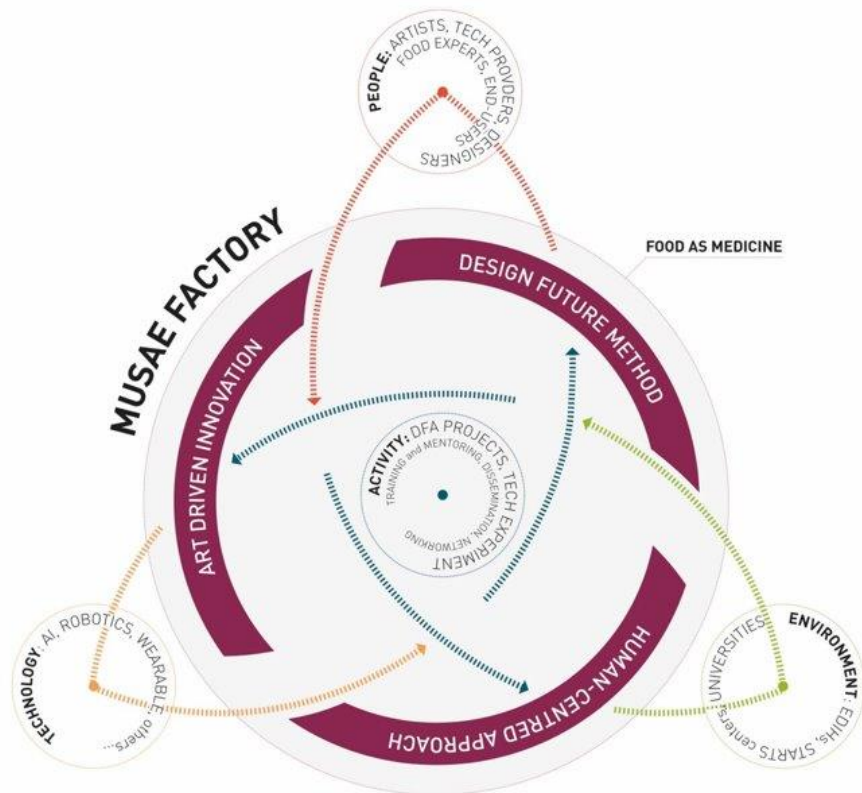
## Technologies

AI, Robotics, Wearables and others tech

## Environment

DIHs, STARTS, Universities

# MUSAE FACTORY



MUSAE is an innovative concept of exploration lab at the interface of art, technology, industry and society, aiming at **supporting companies, SMEs and startups in envisioning future scenarios of innovation to meet the social and sustainable challenges** they must face in the coming complex era by adopting emerging digital technologies and inspiring their acceptance through a human-centred approach.

The project is supported by Horizon Europe through STARTS an initiative of the European Commission, launched under the Horizon 2020 research and innovation programme to support collaborations between artists, scientists, engineers and researchers.

# MUSAE FACTORY - OBJECTIVES



Set up the **MUSAE Factory Model** in (E)DIH to foster a structured and continuous collaboration between arts and technology

Implementing and validating a **Design Futures Art-driven method** to address future challenges through digital technologies

**Piloting the MUSAE model** to explore future challenges of food as medicine and developing innovative solutions of products and services

Creating **links between the MUSAE model and the STARTS** ecosystem to reinforce the model exploitation and push **its transferability in other (E)DIHs**

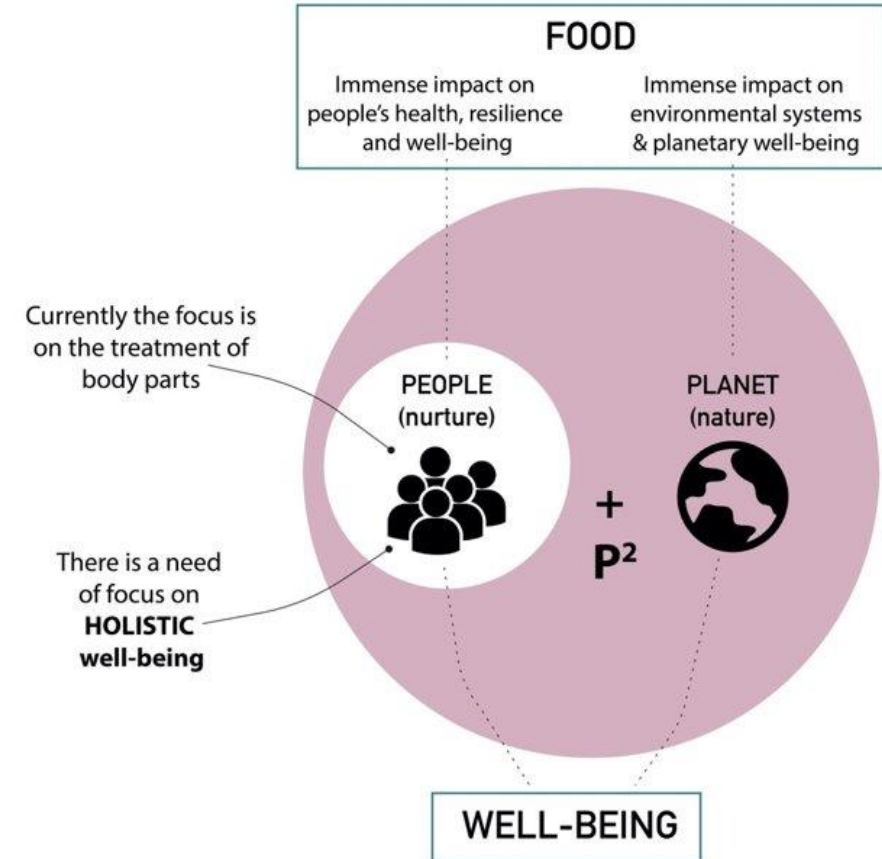
**Disseminate the MUSAE Factory model** and increase technology acceptance and awareness



# THEMATIC AREA – FOOD AS MEDICINE

Health is a sum of  
**nature and nurture**

- Human and environmental health (and how they interact)
- Well-being of the planet is a crucial part of a well-being of individuals
- Incentivizing healthy habits
- Innovation of preventive: Cultivating preventive health behaviors rooted in a sense of responsibility of oneself and one's community.



# THEMATIC AREA

## Food as medicine

New nutrition scenarios aimed at the individual physical, mental and planetary wellbeing

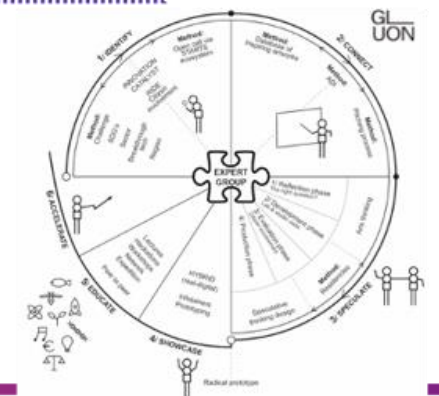
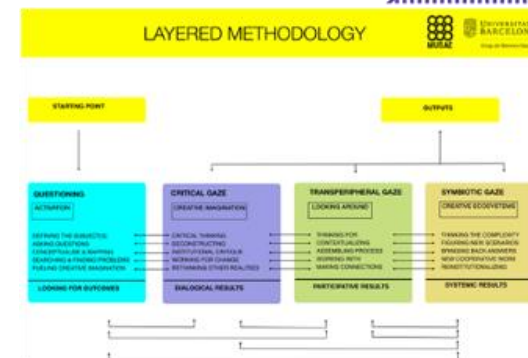
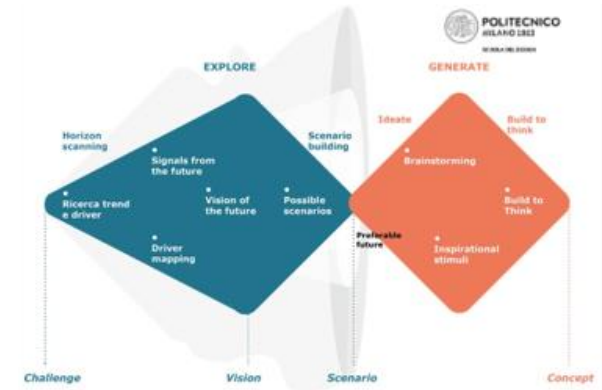


## 3 thematic tracks

1. *Reducing Carbon Footprint in Dietary Behavior*
2. *Role of Food in Holistic Human Well-Being*
3. *Rethinking The Food Chain in Our Environment*

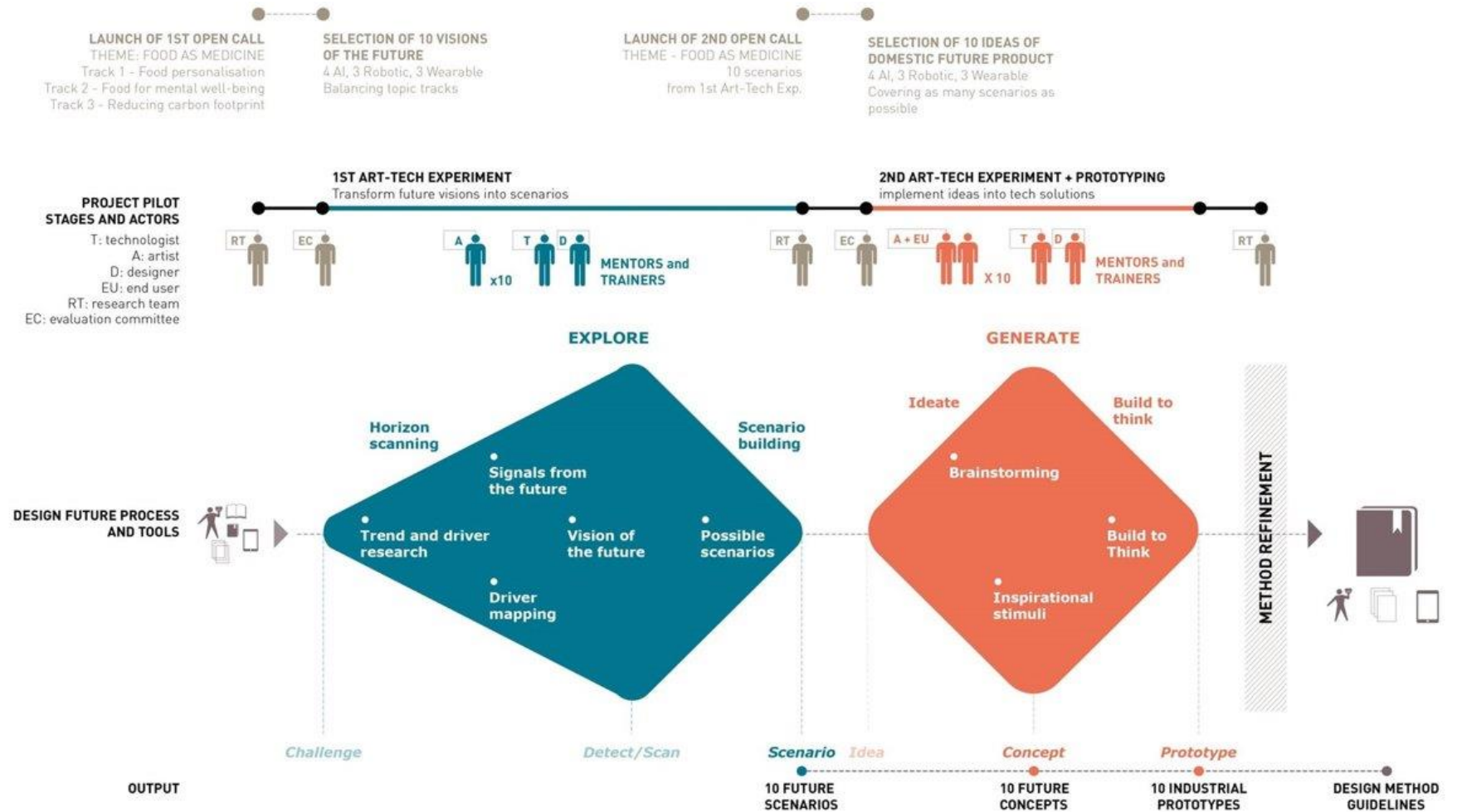
# MUSAE FACTORY DFA METHODOLOGY

The **DFA method** merges the **Design Futures method** and the **Art Thinking approach** to support and train artists to envision future scenarios (5-10 years). **The method is conceived as a strategic, structured process for artists to critically reflect on the future and collaborate with companies to develop new technological solutions that meet future humanity's needs with a human-centred approach, opening up new markets and activities.**

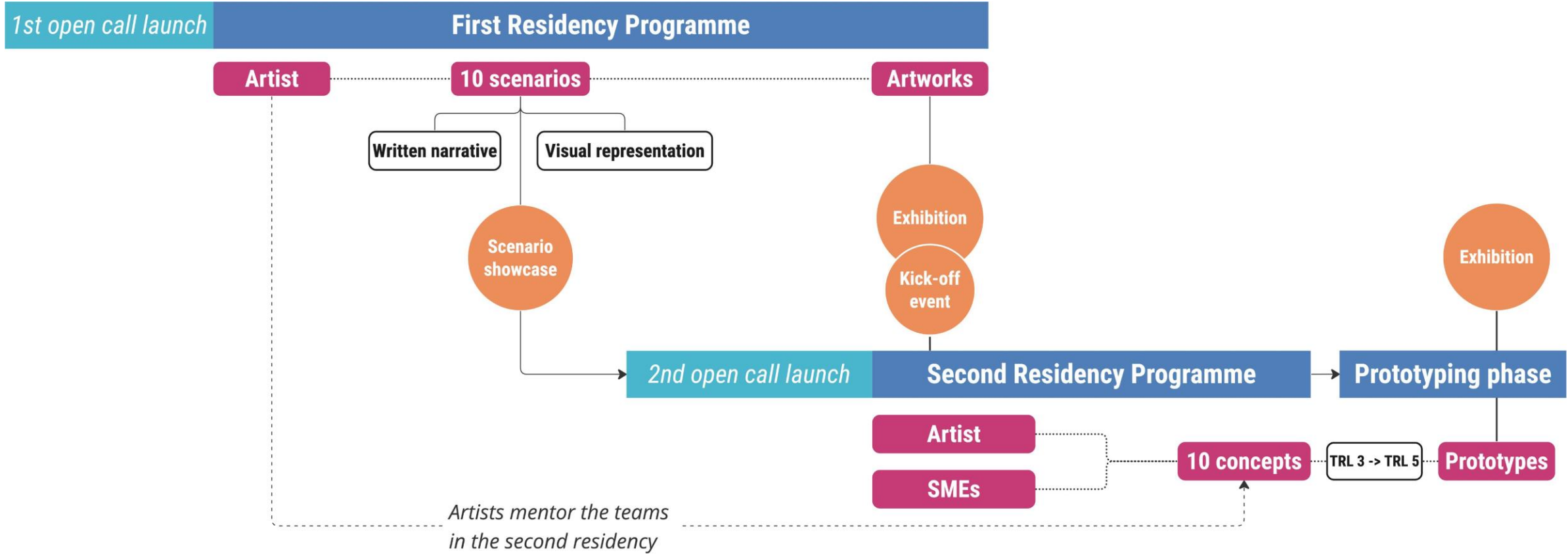


# MUSAE FACTORY PILOTS

The pilots will shape the core methodology of the Factory and the collaborative format between artists, technologists and experts.



# MUSAE PROCESS



# MUSAE FACTORY MODEL



## MUSAE FACTORY MODEL



**FACTORY CORE METHOD: process, tools, guidelines**  
Design thinking and future thinking integrated with arts



**OPEN CALL AND RESIDENCY FORMAT**  
Track definition, call setup & dissemination, artists selection. Residency progr.



**TRAINING AND MENTORING GUIDELINES**  
DFA and tech training and mentoring for artists



**DFA PROJECTS AND USE CASES**  
Future digital tech scenarios; New tech concept (product, service)



**INTEGRATED STAKEHOLDER NETWORK**  
Artists, nutritionists, tech providers.

**DIGITAL INNOVATION HUB**  
Deliver MUSAE Factory as a service



### DIH END-USERS NETWORKS

Provider of emerging tech (AI, VR, Robotics, etc...), LE / SMEs / Startups in different fields.



### STARTS REGIONAL CENTER NETWORKS

Attracting artists and disseminating results to increase acceptance of technology among the general public.



### ART&DESIGN UNIVERSITY NETWORKS

Training for core method application; activation of the open certified Factory Model in Digital Innovation Hubs across EU.

# MUSAE

## MUSAE APPLICATION AND RESIDENCY EXPECTED RESULTS



# MUSAE PROPOSAL & EXPECTED RESIDENCY OUTPUTS



**APPLICATION PROCESS  
FIRST OPEN CALL**

*April 13 - June 5, 2023*

Motivation to join MUSAE

Critical vision of the thematic track

Critical vision of the technologies in your vision

**FIRST ART-TECH RESIDENCY PROGRAM**

*September 2023 - April 2024*

Scenario

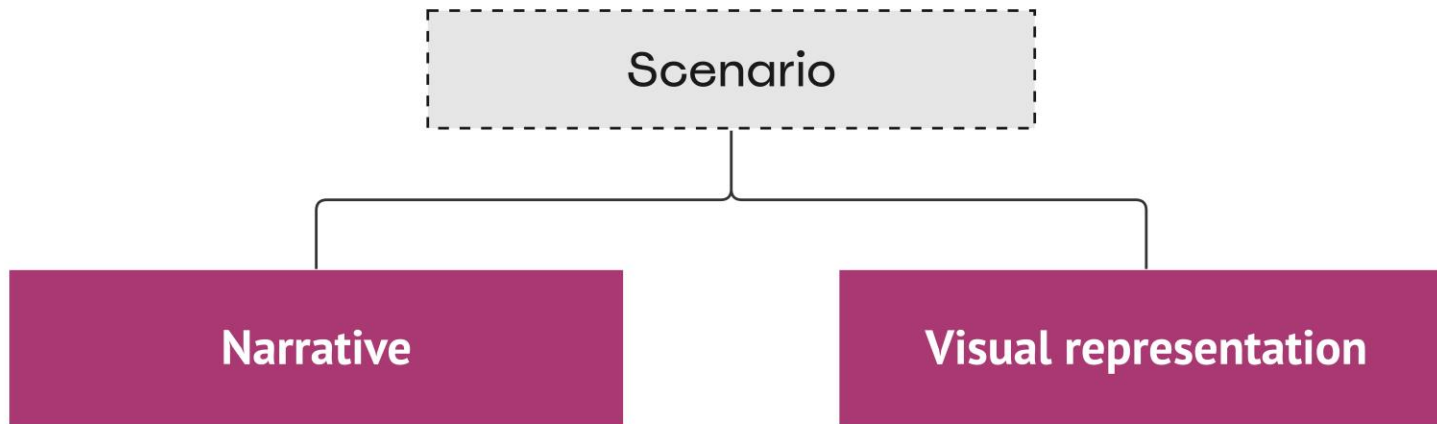
Artwork



# MUSAE EXPECTED RESIDENCY OUTPUT - SCENARIO



**Scenario** is a hypothetical story created with sufficient detail to explore visions or aspects of possible futures. A scenario does not predict what will happen in the future but rather by simulating possible futures it can reveal the choices available.



## *Formats of scenario:*

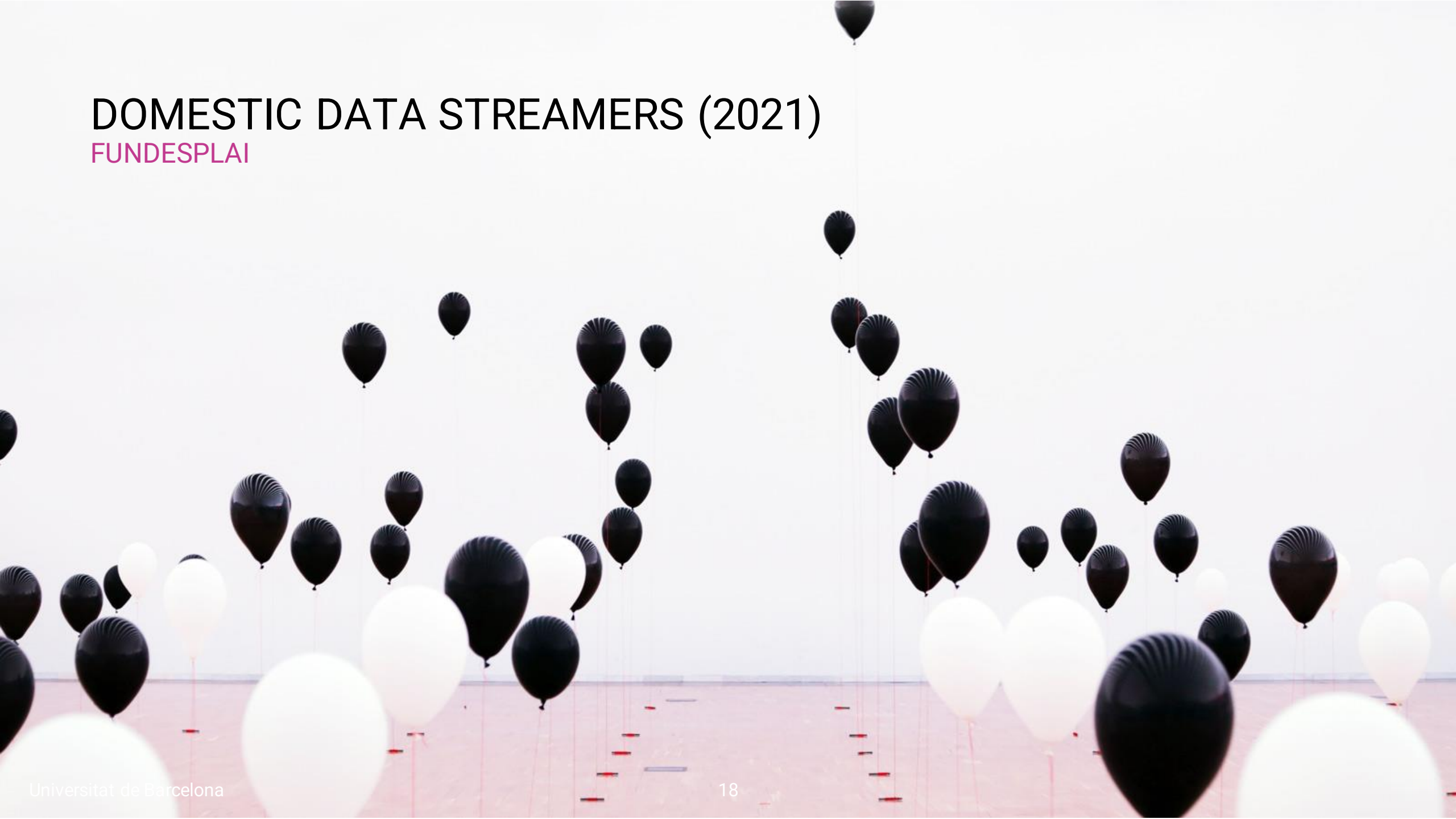
- Podcast
- Visual representation
- Artefact
- Storyboard
- Video
- Website

## *Components of scenario:*

- Worldbuilding
- Personas
- Future artefacts

# DOMESTIC DATA STREAMERS (2021)

FUNDESPLAI



# DOMESTIC DATA STREAMERS (2021)

FUNDESPLAI

Food culture, Food technology, Future of food

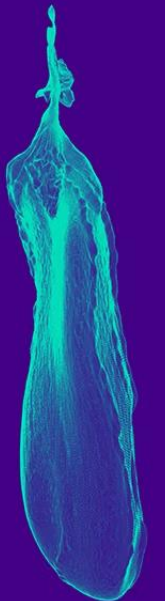
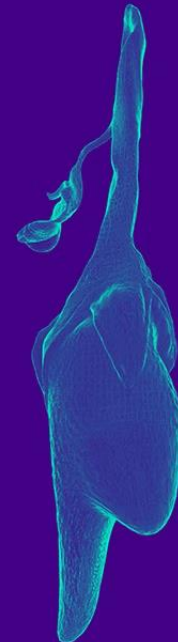
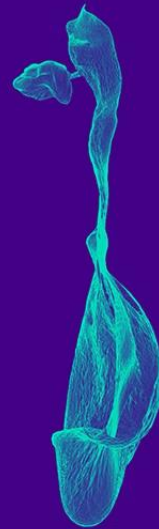
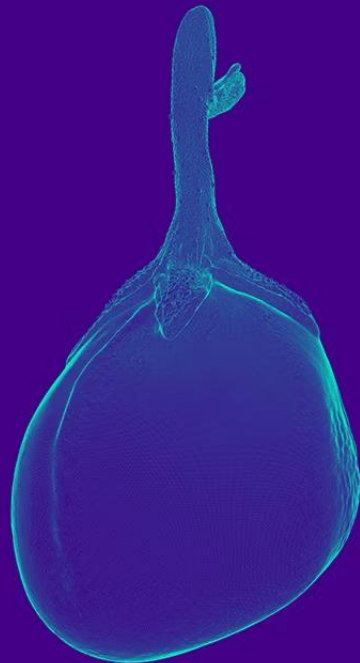
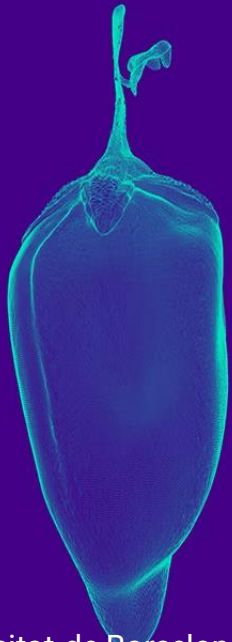
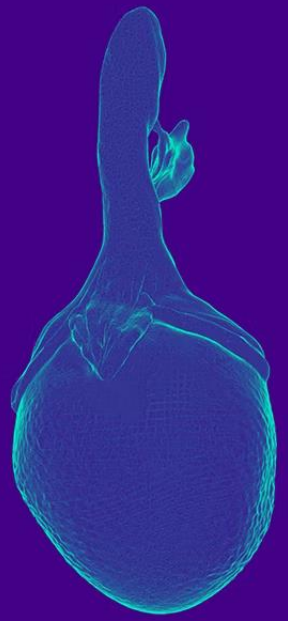
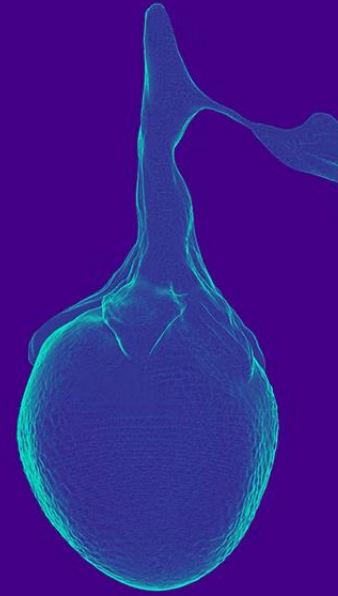


An average person eats 85.000 times in their lifetime. That's 85.000 opportunities to contribute to a system that directly shapes the environment around us. The exhibition *Menja, Actua, Impacta* (*Eat, Act, Impact*) stems from this idea and aims to change mindsets in a journey through different interactive experiences that reflect on food being a powerful leverage for transformation.

<https://domesticstreamers.com/projects/eat-act-impact/>

# FUTURE FOOD FORMULA(2017-19)

CHLOË RUTZERVELD



# FUTURE FOOD FORMULA (2017-19)

CHLOÉ RUTZERVELD

*Food consumption, Personal health*



The Future Food Formula is an interactive installation that allows consumers to step into the shoes of a high-tech farmer and design their personalized future vegetable without the use of GMOs but by making smart use of technology to influence natural growing conditions. Adjust the recipe on the touchscreen to see how your input effects the size, color, taste and nutritional value of the crop. *“Design your own vegetable by adjusting the growth recipe”.*

<https://www.chloerutzerveld.com/future-food-formula>

# PLANT MACHINE (2022)

ŠPELA PETRIČ

# PLANT MACHINE (2022)

ŠPELA PETRIČ

*Agriculture, Community and land health*



PL'AI, the third work from Špela Petrič's opus PLANT-MACHINE, embraces the notion of a play as an ontological condition of all living bodies, including plants. The act of playing, unlike games, ~~which are limited by clear rules or goals,~~ reflects the curiosity of existence and is therefore at the heart of (self)knowing. The point of departure was the question: what would it mean to make an artificial intelligence (AI) that thinks of itself as a plant? This idea is derived from my curiosity about the wider relationship between people and plants as well as the increasing use of machine learning algorithms that inform our understanding of the world.

<https://www.spelapetric.org/#/plai/>

# AL-BERT'S FRESH PLACE (2022)

NEXT NATURE & NONHUMAN NONSENSE





# AL-BERT'S FRESH PLACE (2022)

## NEXT NATURE & NONHUMAN NONSENSE

*Food as symbolic epicenter, Relationship between art and food*



<https://nextnature.net/magazine/story/2022/making-an-ai-supermarket>

Nonhuman Nonsense, the design studio behind the project at the centre of this scenario, have used two AI bots to develop *AI-bert's Fresh Place* – a playful take on Albert Heijn, the Netherlands' largest supermarket chain. This virtual experience is powered by an AI chatbot. The team has trained the bot to converse with consumers and help them identify their specific worries concerning the environment, as well as get a sense of their favourite foods or products. It then produces a product recommendation based on those concerns.

# MUSAE

**MUSAE Open Call: how to submit a proposal, proposal format and deadline**



# 1st OPEN CALL - Artists

## WHAT?

**10 artists** to participate in 7 months (Sept 2023 – Mar 2023) residency programme and to support artists in application of the Design Futures Art-driven Method

**10 scenarios** based on one of the three thematic tracks and one or more of the three digital technologies

**40.000 €** (lump sum) per project

## OFFICIAL DOCUMENT

### MUSAE

**A human-centered and ethical development of digital and industrial technologies.**

**OPEN NOW: MUSAE First Open Call – April 13th – June 5th, 2023**

Are you interested in exploring the role of food in human and planetary well-being? 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 and artworks.

### Find out more information about the open call

- + [Guide of Applicant](#)
- + [MUSAE Brochure](#)
- + [Open call template](#)

For any doubts or questions, you can reach us by email at [info@made-cc.eu](mailto:info@made-cc.eu)

**APPLY HERE!**

<https://starts.eu/what-we-do/residences/musae/>

# 1st OPEN CALL - Artists

## WHO CAN APPLY?

ELEGIBILITY CRITERIA - [MUSAE\\_Guide-of-applicants\\_DEF\\_V2.pdf](#)

### Natural person

1. Self-employed individual (freelancer) that undertakes artistic activities

2. Legal person under NACE code '9003 Artistic Creation'

Established in one of the **Countries eligible for Horizon Europe funding** (see [Horizon Europe 2023/2024 - 13. General Annexes](#) )

The topic of the experiment must cover **one of the thematic tracks and critical reflection of at least one of the technologies** foreseen in the grant

Proposals must be submitted in English.

# 1st OPEN CALL - Artists

## TOPICS

### THEMATIC TRACKS

#### 1. Reducing carbon footprint in dietary behavior

- 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?

#### 2. Role of food in holistic human well-being

- How can we increase wholegrains, fruits, and vegetables while decreasing salt intake?
- 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?

#### 3. Rethinking the food chain in our environment

- 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?

### TECHNOLOGIES

#### 1. Artificial Intelligence (AI)

#### 2. Robotics

#### 3. Wearable technologies

# 1st OPEN CALL - Artists

## EXPECTED RESULTS AND ACTIVITIES

**1 Scenario [M3]** - representation of the scenario: text, podcast, visual representation of the scenario, artefact, storyboard, evocative image(s), video, website, sketch

**1 Artwork [M7]** - describing and representing the scenario through a preferred artistic medium or format (at least one thematic track should be represented and, at least one technology should be considered)

- **Travel** to partners institutions to receive the training on DFA method and participate to final exhibition in September 2023 – April 2024
- **Provide a narrative of the scenario** as an input for the launch of the MUSAE second Open Call as one of the open call tracks which will be launched in 2024. Present the narrative of scenario as processual artwork at the exhibition in Barcelona in April 2024.
- **Follow and mentor** the team during the second residency (during the phase of Concept Development in May, June, July 2023 – one session per month).
- **Develop an artwork** which respect the conditions presented previously.

ONE THEMATIC TRACK + ONE TECHNOLOGY

# 1st OPEN CALL - Artists

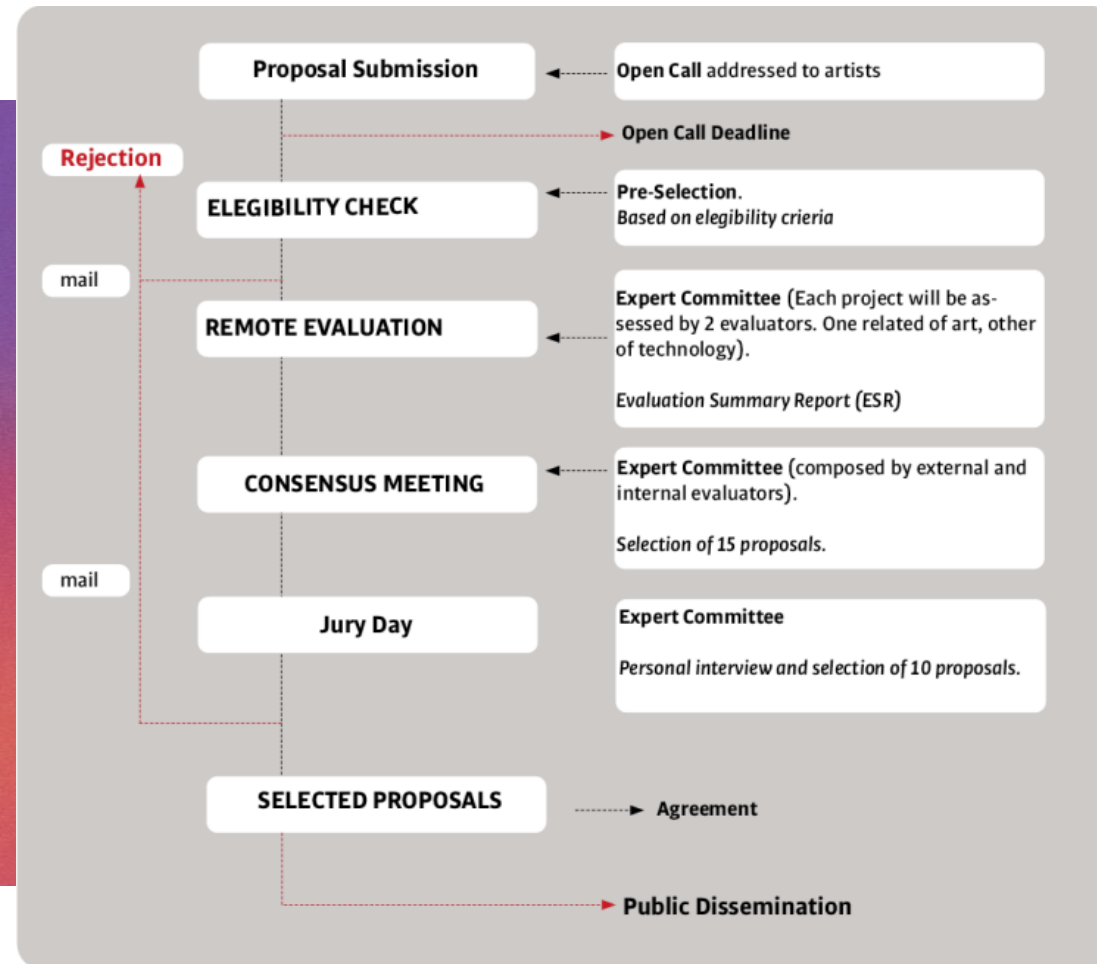
## EVALUATION CRITERIA

Criteria	Minimum threshold	Priority in case of ex aequo [1 highest, 3 lowest]
<p><b>EXCELLENCE</b></p> <p><b>1. Innovation:</b> Coherence and relevance with the objectives and scope, including innovative concepts, artistic approach and complementarity with the thematic tracks, digital technologies and the MUSAE domain.</p> <p><b>2. Fit:</b> The Proposal demonstrates a clear understanding of the thematic lines to which it responds, and fits the vision of MUSAE</p> <p><b>3. Soundness:</b> The proposal demonstrates a clear and credible critical future vision of one of the chosen topic to further deliver demonstratable scenario and one artwork by the end of the residency programme.</p>	3 out of 5	3

Criteria	Minimum threshold	Priority in case of ex aequo [1 highest, 3 lowest]
<p><b>IMPACT</b></p> <p><b>1. Artistic potential:</b> The proposal demonstrates potential for artistic outcomes.</p> <p><b>2. Challenges:</b> Definition of which innovative aspects the proposal contributes in relation to the challenges of contemporary ecosystems and its suitability to the defined topic.</p> <p><b>3. Critical and proactive sense:</b> Balance between critical thinking and practical application of the results.</p>	3 out of 5	1
<p><b>IMPLEMENTATION</b></p> <p><b>1. CV/ Artistic portfolio:</b> The capacity, expertise and experience of the artists and the ability to go from the conceptual to the development stage of the project.</p> <p><b>2. Artistic and technological quality:</b> Based on previous work, the vision of the proposal, and how the synergy between art and technology are applied to address the thematic area(s) and possible scenarios.</p> <p><b>3. Resources:</b> The proposal clarifies the needs and objectives of the program and is realistic in terms of achieving them within the constraints of time and budget.</p>	3 out of 5	2

# 1st OPEN CALL - Artists

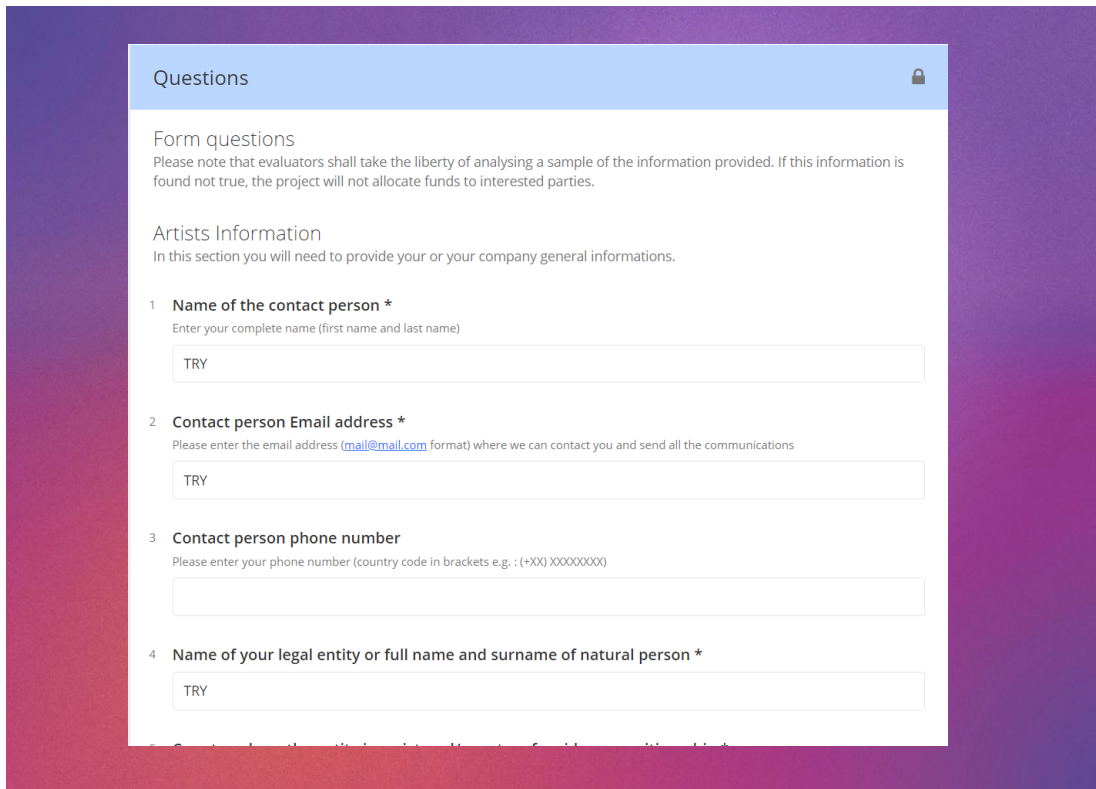
## EVALUATION PROCESS





# 1st OPEN CALL - Artists

## HOW TO APPLY?



The screenshot shows a web form titled 'Questions' with a lock icon. It contains a section for 'Form questions' with a disclaimer. Below that is the 'Artists Information' section, which includes four numbered fields: 1. Name of the contact person, 2. Contact person Email address, 3. Contact person phone number, and 4. Name of your legal entity or full name and surname of natural person. Each field has a 'TRY' button and a text input area.

Questions

Form questions  
Please note that evaluators shall take the liberty of analysing a sample of the information provided. If this information is found not true, the project will not allocate funds to interested parties.

Artists Information  
In this section you will need to provide your or your company general informations.

- 1 Name of the contact person \***  
Enter your complete name (first name and last name)  
TRY
- 2 Contact person Email address \***  
Please enter the email address (mail@mail.com format) where we can contact you and send all the communications  
TRY
- 3 Contact person phone number**  
Please enter your phone number (country code in brackets e.g.: (+XX) XXXXXXXXX)  
TRY
- 4 Name of your legal entity or full name and surname of natural person \***  
TRY

APPLY IN THE PLATFORM - <https://www.f6s.com/>

1. Inside the platform you will be asked to register your company or yourself
2. Go to the MUSAE Open Call <https://www.f6s.com/musae-starts-open-call-for-artists>
3. Apply by responding to the questions
  - I. Please remember to have a CV updated and a portfolio with projects related to your choices (technologies and thematic)
4. Wait for our reply



# 1st OPEN CALL - Artists

## QUESTIONS AND SECTIONS



Information to check the eligibility criteria

Information about your proposal

Describe your proposal and motivation

Provide a general identification on how you are going to spend money (Personnel, other costs, travel, indirect costs)

Provide some previous work related to your proposal (MAX 2 – PDF 30MB)

# 1st OPEN CALL - Artists

WHEN TO APPLY?

## DEADLINES

**5/06/2023** h. 12.00 CET.

*Any application received after the deadline or through other channels will be automatically rejected*

*For more information write to: [info@made-cc.eu](mailto:info@made-cc.eu)*

# MUSAE

## Q&A



# THANK YOU

