D6.3 Factory Model Pack and Label

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1.2	27/08/2025	Carmen Bruno	Final review

Executive summary

D6.3 "Factory Model Pack and Label" presents a comprehensive set of open-source methodologies, tools, and guidelines, collectively known as the Factory Model Pack. The Pack is specifically designed to support (European) Digital Innovation Hubs ((E)DIH) in adopting and implementing the MUSAE Factory Model within their activities. Its objective is to strengthen the role of (E)DIHs as innovation facilitators, diversify their service offerings, attract new opportunities, enhance technology adoption, and expand their impact across industries, thereby helping SMEs to grow.

The Factory Model Pack is accessible via an interactive visual map on the MUSAE website. It includes all the main results produced in the project to enable (E)DIHs to adopt the MUSAE Factory Model and replicate the MUSAE experience. These results have been translated into resources clustered into three main categories:

• Methodological resources: These help (E)DIHs apply a future-oriented innovation process. At its core is the DFA (Design Futures Art-driven) method, and a collection of use cases and project examples, particularly referring to the results of Art-Tech residencies performed during the MUSAE Project on the topic of "Food as Medicine".

• Organizational resources: These help (E)DIHs design and run effective Art-Tech residencies. They include a Residency Format, an Open Call Format, Mentoring and Training Guidelines

• Community resources: This includes the Integrated Stakeholder Network, a crucial open network for identifying and connecting key actors such as artists, SMEs, tech providers, and domain experts (e.g., in food or health).

To assist (E)DIHs in navigating the various resources, an Orientation Guide explaining the pack's contents and each resource's role, and an Introductory course composed of four videos covering the MUSAE Factory Model Pack, DFA method, open call guidelines, and facilitation/mentoring guidelines, have been developed. A dedicated orientation guide for educators is also provided to support Art & Design educators and Higher Education Institutions in integrating the DFA method into their curricula, equipping students with future-oriented skills.

The document also introduces the Factory Model Label. This Label certifies (E)DIHs to adopt the innovative approach of the MUSAE Factory Model and apply it to companies, thereby promoting digital innovation by integrating scientific, technological, and artistic insights.

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1. Introduction

1.1. Purpose of the document

This report works as a Demo deliverable and focuses on the development and presentation of the Factory Model Pack and the Factory Model Label. The complete set of resources included in the Pack is available on the MUSAE website and accessible through the interactive map. The objective of this deliverable is to present the complete set of open source tools, templates and guidelines, highlighting how it was built and developed to support (European) Digital Innovation Hubs ((E)DIHs) in adopting and implementing the MUSAE Factory Model within their activities. The document is organised as follows:

- Section 1 describes the design of the Factory Model Pack and the actions performed to collaboratively build it.

- Section 2 presents the structure of the pack and the resources included, categorised into methodological, organisational, and community resources, and illustrates their various components and purposes.

- Section 3 aims to introduce the Factory Model Label, specifying its function of certifying (E)DIHs that adopt the innovative approach of the model, the benefits associated with obtaining the Label, and the procedures for applying for it.

1.2 Terms and acronyms

Acronym	Description
EDIH	European Digital Innovation Hub
DFA	Design Futures Art-driven (method)
POLIMI	Politecnico di Milano (Department of Design)
UB-TECH	University of Barcelona (Mathematics and Computer Science Department)
UB-ART	University of Barcelona (Department of Fine Arts)

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2. Designing the Factory Model Pack

As declared in the MUSAE project proposal, one of the key final outcomes of the project is the release of a comprehensive and structured Factory Model Pack, aimed at strengthening the

STARTS ecosystem and enriching the services provided by European Digital Innovation Hubs (EDIHs). This pack is conceived as a practical and replicable toolbox to support DIHs in promoting artist-SME collaborations and implementing the Design Future Art-driven (DFA) methodology across different thematic areas. It includes (Fig. 1): (i) the Factory core method with the process, tools and guidelines to apply the DFA; (ii) the open call and residency/fellowship formats to promote structured and collaboration between artists and SMEs; (iii) expertise and guidelines for methodological and technological training and mentoring; (iv) projects and use cases within the topic of Food as Medicine as a showcase to illustrate the potentialities of the method; (v) an Integrated Stakeholder Network of technology providers, artists, experts in nutrition, art and design universities (vi) a devoted label, complementing the STARTS original label.
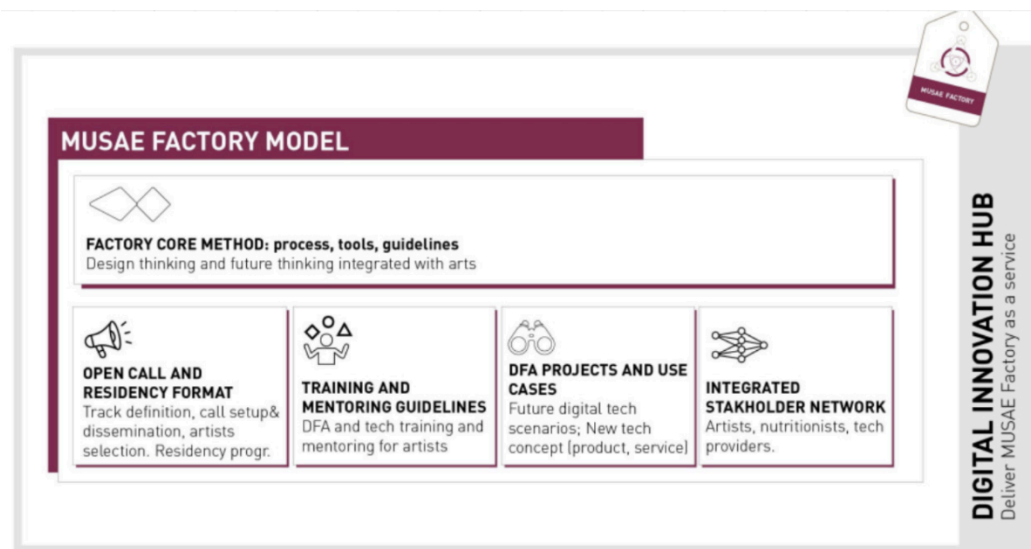

Fig. 1. MUSAE Factory Model Pack as first outlined in the MUSAE project proposal

The design of the Factory Model Pack was informed by the outcomes and learnings generated throughout the MUSAE project. As a task leader, POLIMI initially evaluated the results achieved and decided which resources to include. While the original proposal envisioned a more compact structure, POLIMI opted to separate the open call and residency formats, and distinguish between training and mentoring activities. This led to the definition of *seven distinct resources*, each with its own goals, contents and tools. This decision reflects the diversity of resources developed and the need to treat each one with dedicated attention.

To facilitate usability and dissemination, POLIMI conceptualised a visual representation of the Factory Model (Fig. 2), designed to be an **interactive map of resources**, inspired by the educational box of the DC4DM project (dc4dm.eu/model-and-tools). This interactive map not only captures the logic and relationships between the resources, but also enhances user navigation.
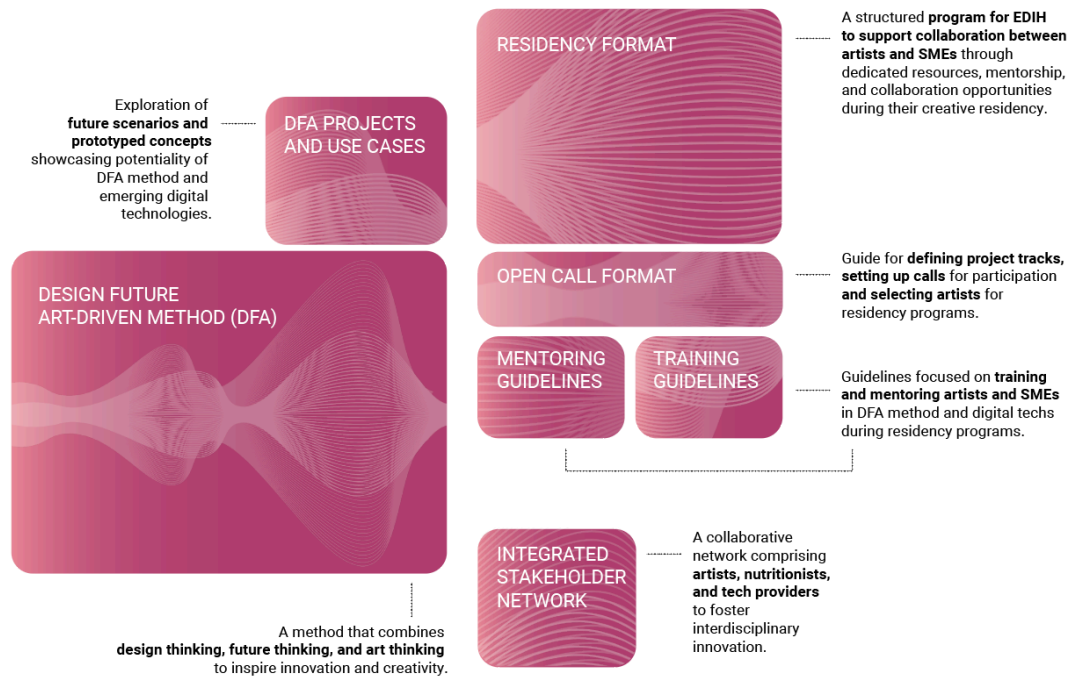
DFA PROJECTS AND USE CASES

Exploration of **future scenarios and prototyped concepts** showcasing potentiality of DFA method and emerging digital technologies.

DESIGN FUTURE ART-DRIVEN METHOD (DFA)

A method that combines **design thinking, future thinking, and art thinking** to inspire innovation and creativity.

RESIDENCY FORMAT

A structured **program for EDIH to support collaboration between artists and SMEs** through dedicated resources, mentorship, and collaboration opportunities during their creative residency.

OPEN CALL FORMAT

Guide for **defining project tracks, setting up calls** for participation **and selecting artists** for residency programs.

MENTORING GUIDELINES

TRAINING GUIDELINES

Guidelines focused on **training and mentoring artists and SMEs** in DFA method and digital techs during residency programs.

INTEGRATED STAKEHOLDER NETWORK

A collaborative network comprising **artists, nutritionists, and tech providers** to foster interdisciplinary innovation.

Fig. 2. MUSAE Factory Model Pack final visualization and resources included

We then addressed the key question: How should the content be organised within the Factory Pack? Each of the seven resources is presented with (Fig.3):

- A practical PDF guideline, describing how to apply the resource, its purpose, and including all tools and templates created within the project.

- An example of implementation, showing how the resource was applied within the MUSAE project, providing concrete and inspirational use cases.

This hybrid format—combining downloadable materials and web-based navigation—enhances both accessibility and engagement, ensuring the Factory Pack remains a living tool beyond the project's conclusion.

One of the major decisions during this phase was to go beyond a static deliverable and use the MUSAE **website as an integral part of the Factory Model Pack**. This choice required a **complete rethinking of the website's layout and structure**, transforming it from a traditional project showcase into an active, user-oriented platform. The website was redesigned to serve as a *dynamic repository of best practices*, offering direct access to each resource through a dedicated section (Fig 4).
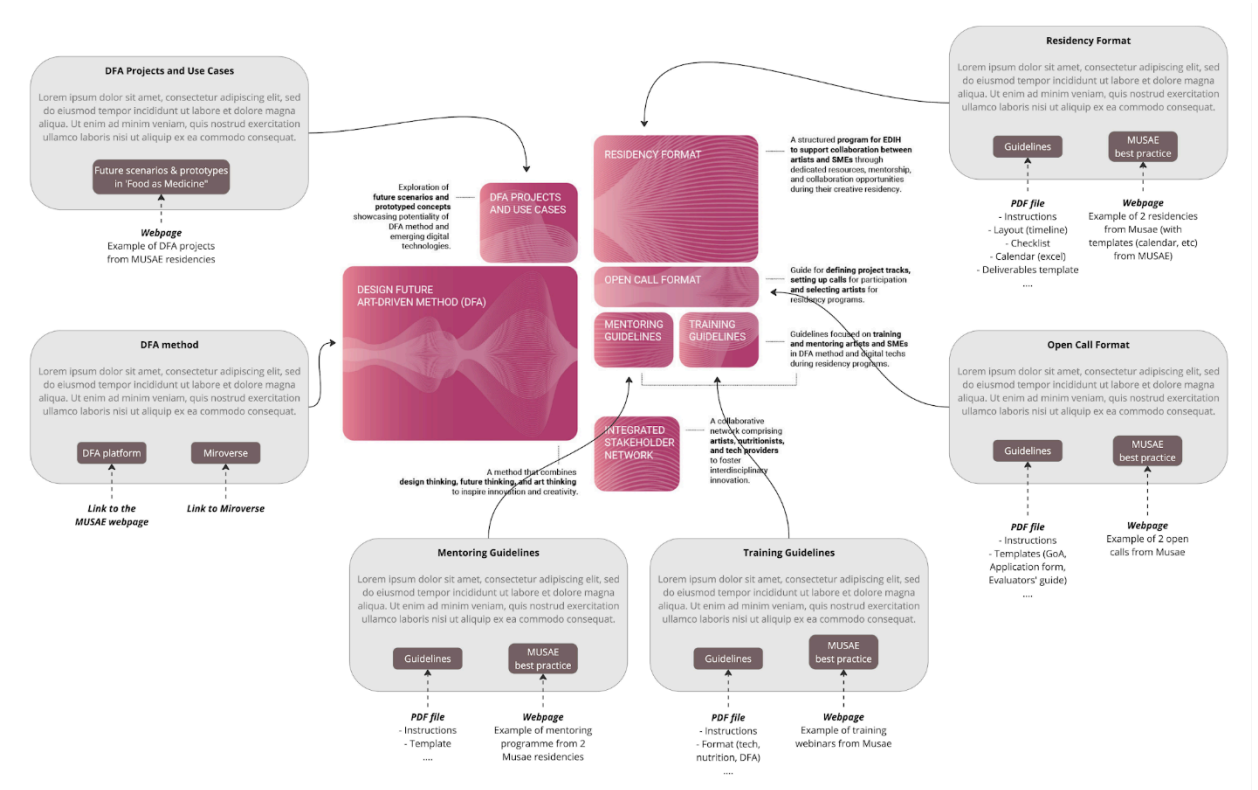
Fig. 3. MUSAE Factory Model Pack. Layout of the interactive map

MUSAE Website

✓ MUSAE website was reorganized to structure all outputs and integrate Factory Model Pack

Fig. 4. Reorganization of the MUSAE website content

POLIMI played a central coordination role in this effort. It developed the structural framework of the Factory Pack and enabled partner contributions by creating a shared Word template and

the website layout mock-up using a Miro board (Fig. 5). Each partner responsible for specific project outputs and work packages contributed their respective guidelines and selected relevant contents from the MUSAE experience:

- Open Call Format (Partner: MADE)

- Training Format (Partner: Ab.Acus)

- Mentoring Format and Stakeholder Network (Partner: Gluon)

- Use Cases and Residency Format (Partner: UB-ART)
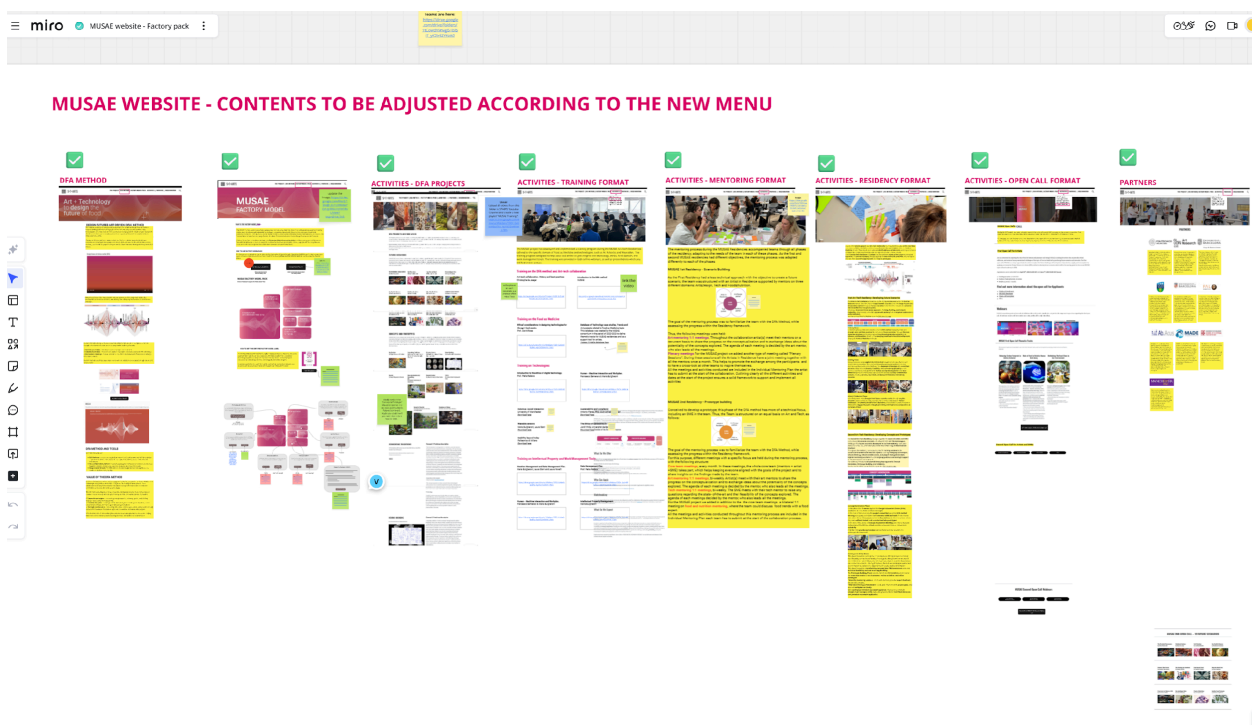
- DFA Method (Partner: POLIMI)

Fig. 5. Collaborative MIRO board structured for involving partners in the construction of the pack web pages

POLIMI collected and harmonised all inputs, ensuring coherence in format and style, and finalised the PDF guidelines and templates. In parallel, POLIMI collaborated with UB-Tech to implement the interactive visual map and the new Factory Pack architecture on the website.

The development of the Factory Model Pack represents a significant collective effort by the consortium. It synthesises the project's achievements into a usable, flexible and inspiring toolkit that can be adapted by DIHs working on a wide range of innovation challenges — in line with the MUSAE vision to foster art-driven innovation for a sustainable future.

3. The Factory Model Pack

Factory Model Pack is a complete set of open-source methodologies, tools, and guidelines designed to support **(European) Digital Innovation Hubs** in adopting and implementing the MUSAE Factory Model within their activities. This will help (E)DIHs to strengthen their role as innovation facilitators, diversify their service offerings, attract new opportunities, enhance tech adoption and expand their impact across industries, helping SMEs to grow.

Therefore, the pack has been developed primarily for (E)DIHs to initiate and support collaboration between companies and artists or designers to create future-driven scenarios and prototypes. Consequently, through the (E)DIH, companies can benefit from the application of the MUSAE Factory model to develop new products and services that address real-world problems by integrating an artistic and future-oriented view in their processes.

The Factory Model Pack is accessible via the interactive visual map (Fig. 6) on the MUSAE website at this link https://musae.starts.eu/factory-model-pack/
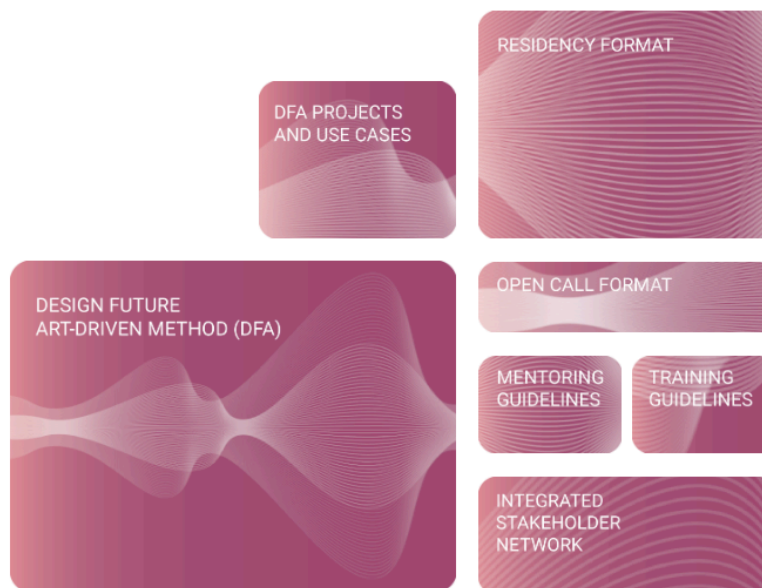

Fig. 6. Interactive visual map of the Factory Model Pack on the MUSAE website

The Factory Model Pack includes all the main results produced in the project to enable (E)DIH to adopt the MUSAE Factory model and replicate the MUSAE experience.

All the results have been translated into resources, which have been clustered into three main categories:

- **Methodological resources** to help (E)DIHs apply a future-oriented innovation process: these are the "DFA method" and "DFA projects and use cases".

- **Organizational resources** to help DIHs design and run effective art-tech residencies: these are "Residency Format", "Open Call Format", "Mentoring Guidelines" and "Training Guidelines".

- **Community resources** crucial for identifying and connecting the right actors: this is the "Integrating Stakeholder Network".

Through the pack, an (E)DIH can access and explore the DFA platform that presents and explains the DFA process and all the activities and creative tools designed to apply it, the guidelines for organizing art-tech residencies, launching open calls and organizing training activities. But they can also access case studies from the MUSAE project to learn from the MUSAE experience and apply the model in specific domains other than "Food as Medicine".

3.1 Methodological resources

The pack includes key methodological components to help (E)DIHs apply a future-oriented innovation process (Fig 7.). At the core is the DFA method offering a structured process for innovation that is future-oriented and creativity driven. Through the interactive map you can access:

- the dedicated DFA platform, which includes all the guidelines, activities and tools to apply the method. Link to the DFA platform

- the Miro board, which is the organized workspace to facilitate Art-Tech collaboration throughout the process (Fig. 8). Link to the Miro board on Miroverse

DFA method
An open-source method that combines design thinking, futures thinking and art thinking to inspire innovation and creativity for companies and artists.

DFA projects and use cases
The collection of the future scenarios, concepts and prototypes showcasing the potentiality of the DFA method

<u>_Provided materials_</u>:
- _DFA platform_
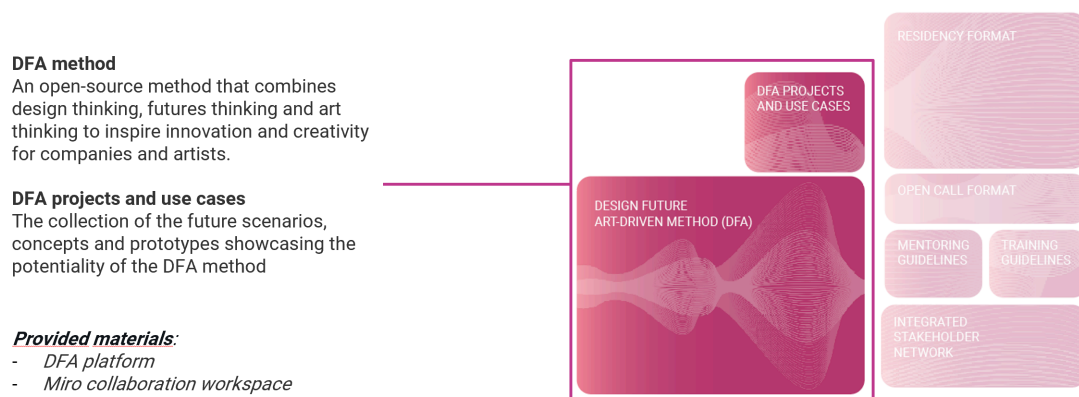- _Miro collaboration workspace_

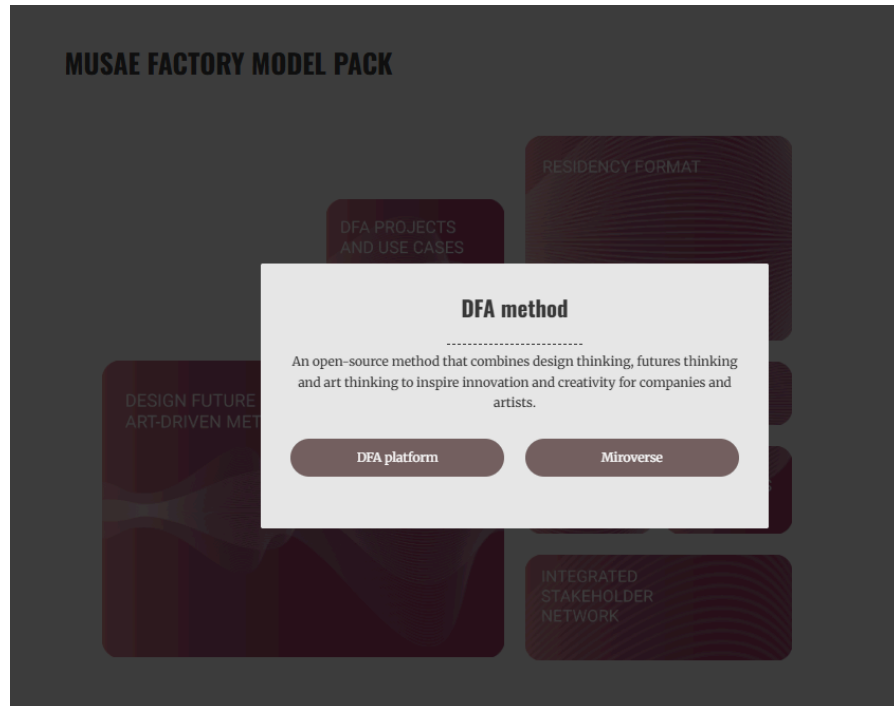Fig. 7. Visualization of the methodological resources included in the MUSAE Factory model pack

Fig. 8. Resources to apply the DFA method

The pack also includes a collection of use cases and project examples (Fig. 9) , showcasing how future scenarios, concepts, and prototypes have been developed using the DFA method. In particular this Project refers to the results of the art-tech residencies performed during the MUSAE Project on the topic of "Food as Medicine". Link to "Future scenarios & Prototypes in Food as Medicine": https://musae.starts.eu/activities-dfa-projects/
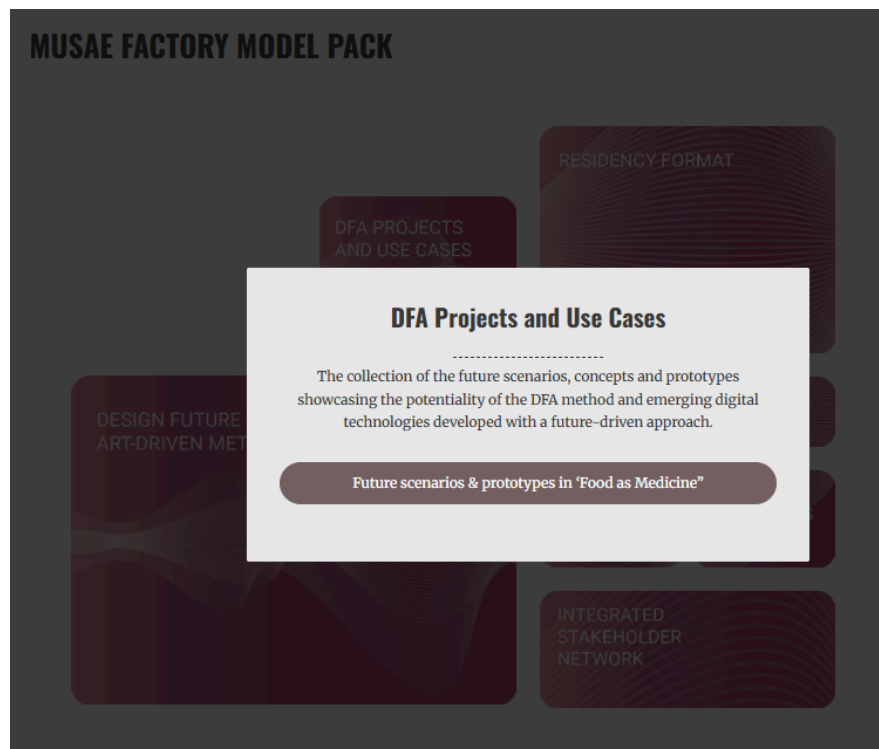

Fig. 9. Resources for consulting the results of DFA method application

3.2 Organizational resources

The MUSAE Factory Model Pack includes resources for (E)DIH to design and run effective art-tech residencies (Fig. 10).

A **residency program** to create and support collaboration between artists and SMEs through a structured residency

An **open call format** to define, organise and run the open calls to select artists for the residency.

Mentoring and Training format develop the program to train and mentor artists and SMEs during the art-tech residency.

Provided materials:
- _Guidelines_
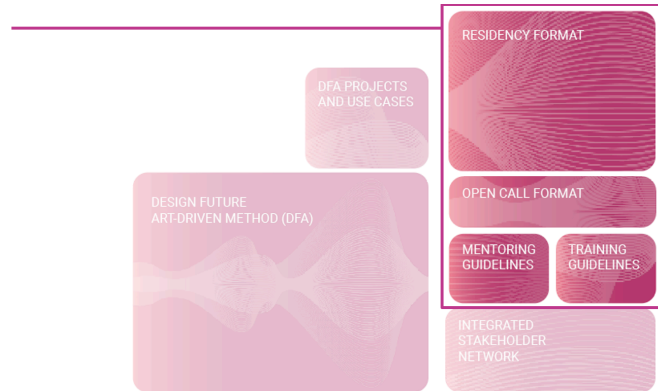- _MUSAE Best practice_

Fig. 10. Visualization of the organizational resources included in the MUSAE Factory model pack

It includes a **Residency Format** (Fig. 11) to structure the collaboration between artists, companies, and tech experts. The residency program is designed to guide artists and SMEs in co-creating future scenarios within a specific domain, leading to the development of forward-thinking concepts and prototypes.

The format includes:

- the Guidelines (ANNEX I) that explain how to design and run an Art-Tech residency providing tools and templates to support (E)DIH in structuring this experience. All the templates can be downloaded from this Google Drive folder "MUSAE_Factory Model Pack"

- "MUSAE best practice" which redirects to the web page which describes how the 2 art-tech residencies have been designed and organized within the MUSAE Project. Link to "MUSAE best practice" page for the residency format.
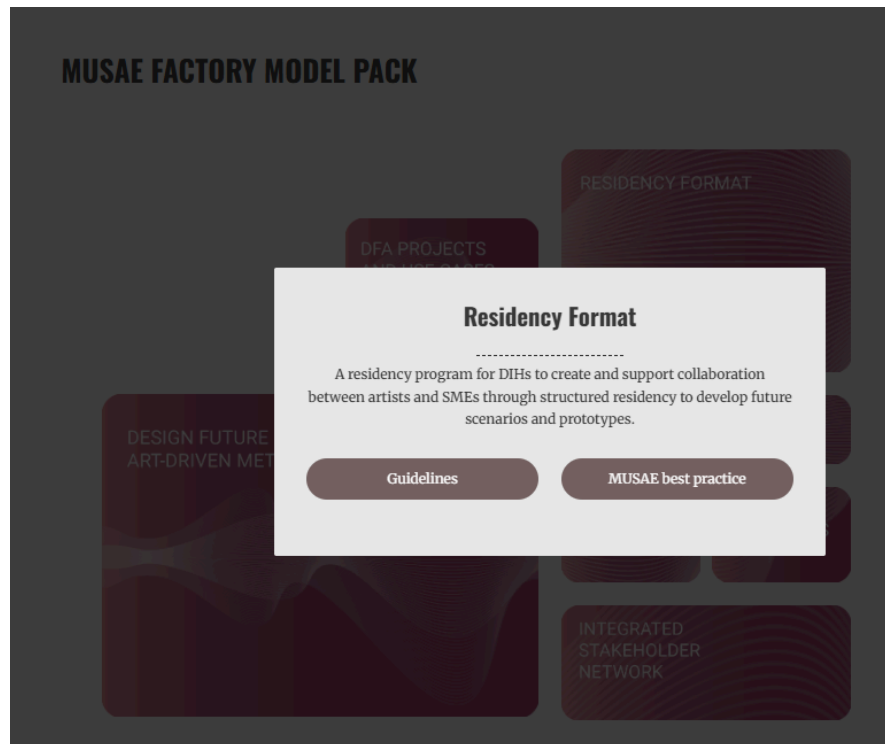
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Fig. 11. Resources for organizing an Art-Tech residency

The pack includes an **open call format** (Fig. 12) that supports the definition and management of open calls to select artists for the art-tech residencies.

The format includes:

- the Guidelines (ANNEX II) that explain how to implement an Open Call model inspired by the experience of the MUSAE project, providing tools and templates to support (E)DIH in creating and launching the call. All the templates can be downloaded from this Google Drive folder "MUSAE_Factory Model Pack"

- "MUSAE best practice" which redirects to the web page with the format and description of the open call formats and how they were structured in the MUSAE project. During the MUSAE project, two open calls were launched: the first open call was focused on the Artists, while the second open call was aimed at the teams of Artists and SMEs. Both open calls include Guide of Applicants, Application forms, Webinars, and other materials. Link to "MUSAE best practice" page for the open call format.
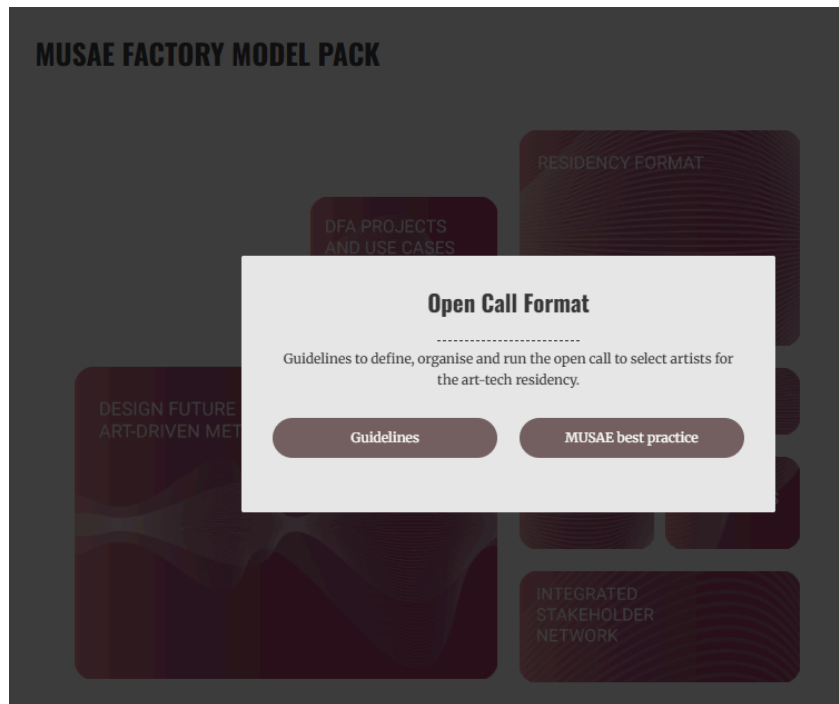
Fig. 12. Resources for designing and launching an open call format

As organisational resources, the pack also includes Mentoring Guidelines (Fig. 13) to ensure that both artists and companies receive the right support throughout the art-tech residency program. Indeed, during the residency, a mentor will be assigned to each selected team to accompany them throughout the DFA Method. This is a key role in this process, as it will not only guide the team on how to apply the methodology but will also support any needs the team may have and help them along the way to translate the vision they have for the project into a concept. As most of the participants in these projects have never worked in interdisciplinary teams before, the role of the mentor becomes a crucial part of the team that facilitates this collaboration, translating the needs of both sides while encouraging innovation, and also keeping both parts aligned and on track.

The format includes:

- the Guidelines (ANNEX III) that explain the role of the mentor and how to set up a mentoring programme, providing tools and templates. All the templates can be downloaded from this Google Drive folder "MUSAE_Factory Model Pack"

- "MUSAE best practice" which redirects to the web page describing how the mentoring process has been structured throughout the 2 MUSAE residencies. Link to "MUSAE best practice" page for mentoring guidelines.
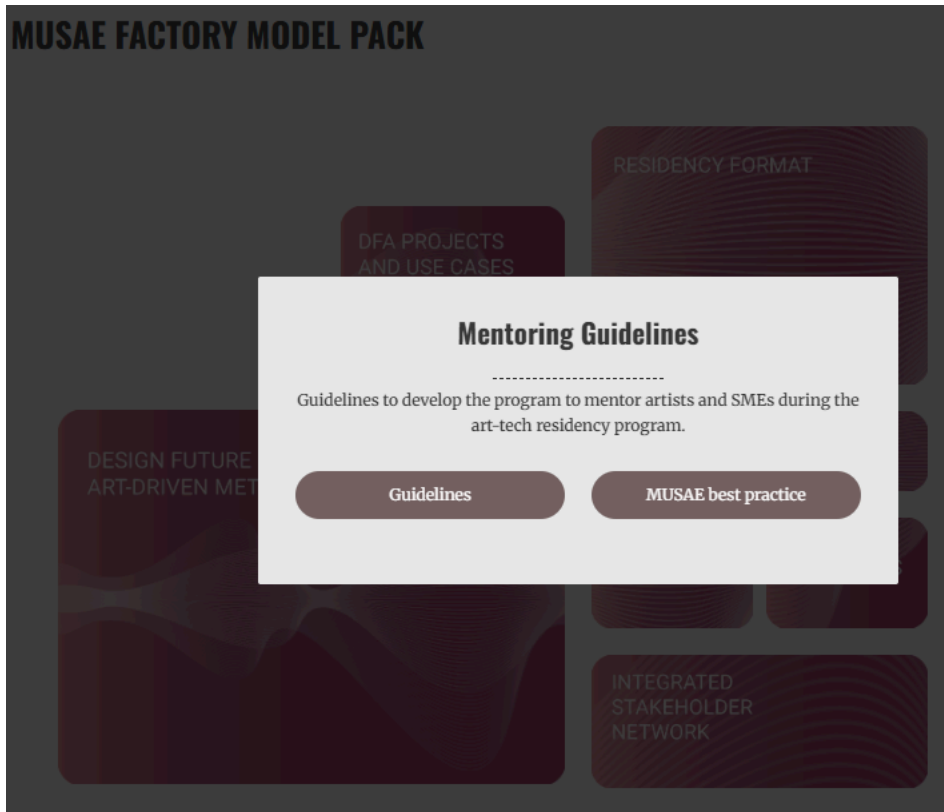
Fig. 13. Resources for organizing mentoring activities during Art-Tech Residency

Lastly, the pack also includes Training guidelines (Fig. 14) for supporting (E)DIH in developing the program to train artists and SMEs during the art-tech residency program.

The format includes:

- the Guidelines (ANNEX IV) that explain how to set up a training programme for artists and companies participating in the residency. The training aims to provide essential knowledge and tools to ensure an effective and productive experience for all participants. All the templates can be downloaded from this Google Drive folder "MUSAE_Factory Model Pack"

- "MUSAE best practice" which redirect to the web page describing the training program implemented during the 2 MUSAE Art-Tech Residencies, which were tailored to the specific domain of Food as Medicine and technologies, such as AI, Robotics and Wearables. The training program was designed to help SMEs and artists gain insights into technology, ethics, the food domain, and work management tools. Link to "MUSAE best practice" page for training format.
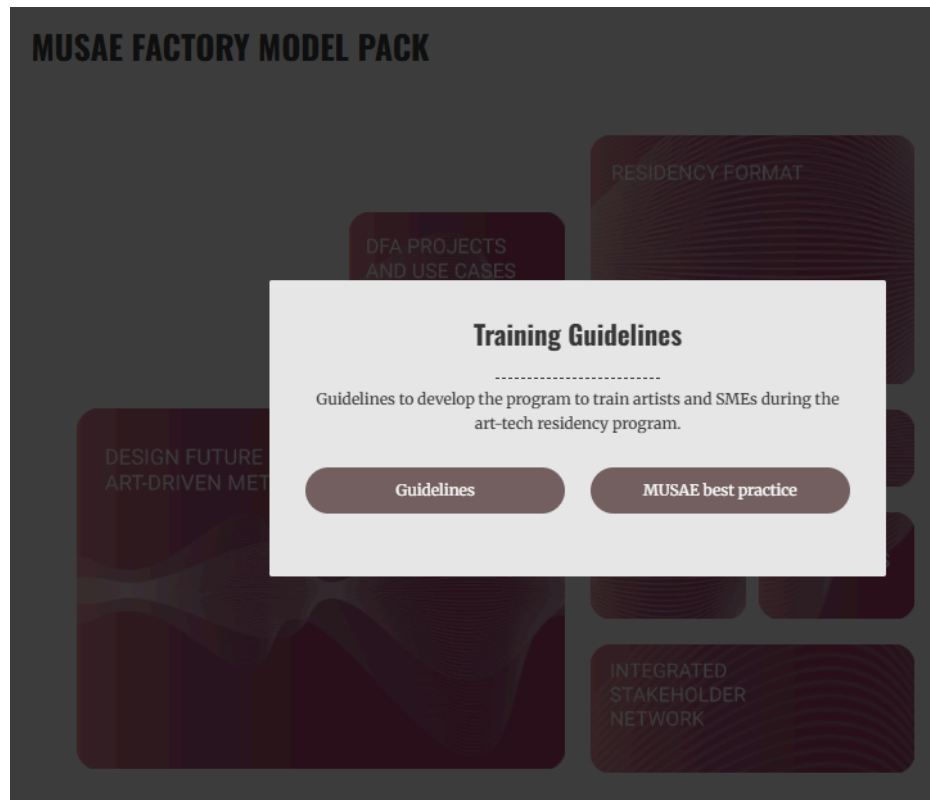
Fig. 14. Resources for organizing training activities during Art-Tech Residency

3.3 Community resources

Another key component of the Factory Model Pack is the Integrated Stakeholder Network (Fig.15) — a crucial resource for identifying and connecting the right actors. This open network brings together artists, SMEs, tech providers, and domain experts — such as those in food or health — who are open to future collaborations. It supports (E)DIHs in building diverse, interdisciplinary teams and promotes long-term relationships across sectors.

Integrated Stakeholder Network
An open network for artists, SMEs and tech providers and domain experts (e.g. Food) created to to facilitate and promote interdisciplinary collaboration on upcoming projects.
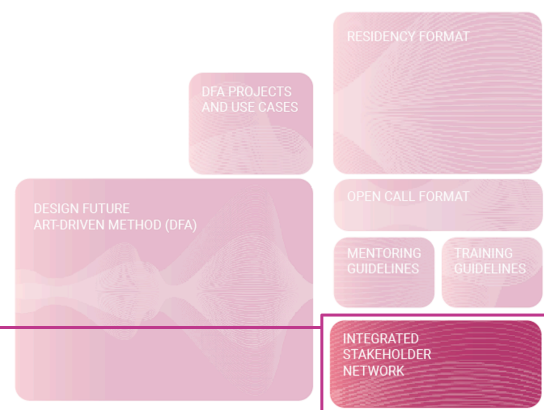
Fig. 15. Visualization of the community resources included in the MUSAE Factory model pack

Relevant key stakeholders that can be part of the Network are shown in Fig.16. Each type of

stakeholder can join the network with its own role and describe their expertise thanks to a dedicated Google Form that will then collect all the info into a database.
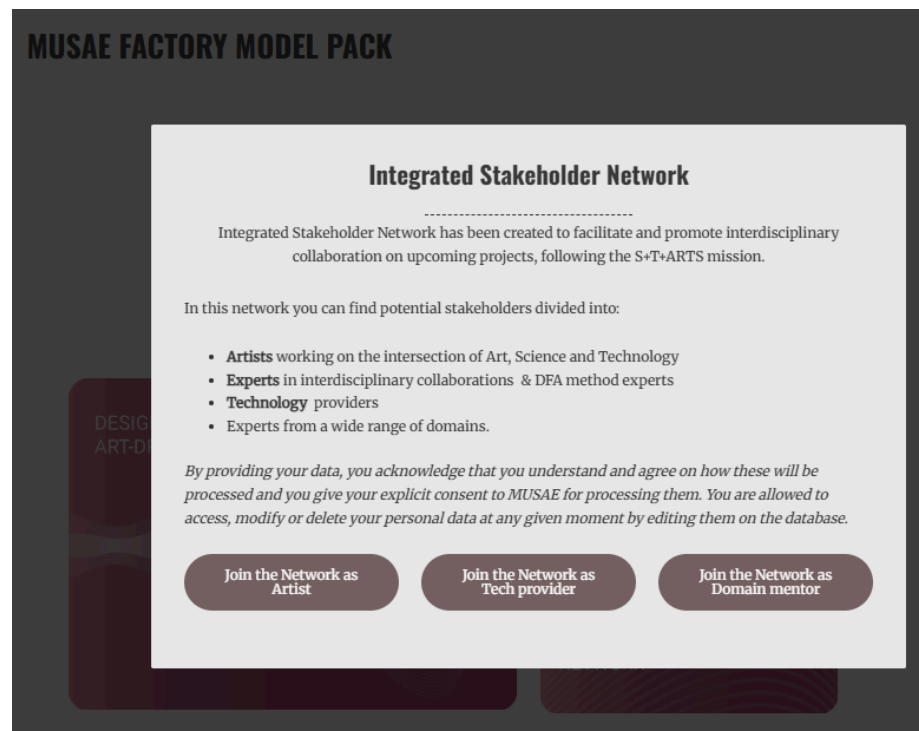

Fig. 16. Visualization of the Integrated Stakeholder Network within the MUSAE Factory model pack

3.4 Orientation Guide and Introductory course for (E)DIH

To support the (E)DIH in orienting within the multiple resources included in the pack we developed:

- An *orientation guide* (Fig. 17) which is a document explaining what is included in the pack and the role of each resource. The Orientation Guide for (E)DIH is available at this link

- An *Introductory course* composed by four videos that will give an explanation of the following topics: *i) the MUSAE Factory Model Pack ii)The DFA method iii) Open call guidelines iv) Facilitation and Mentoring guidelines*
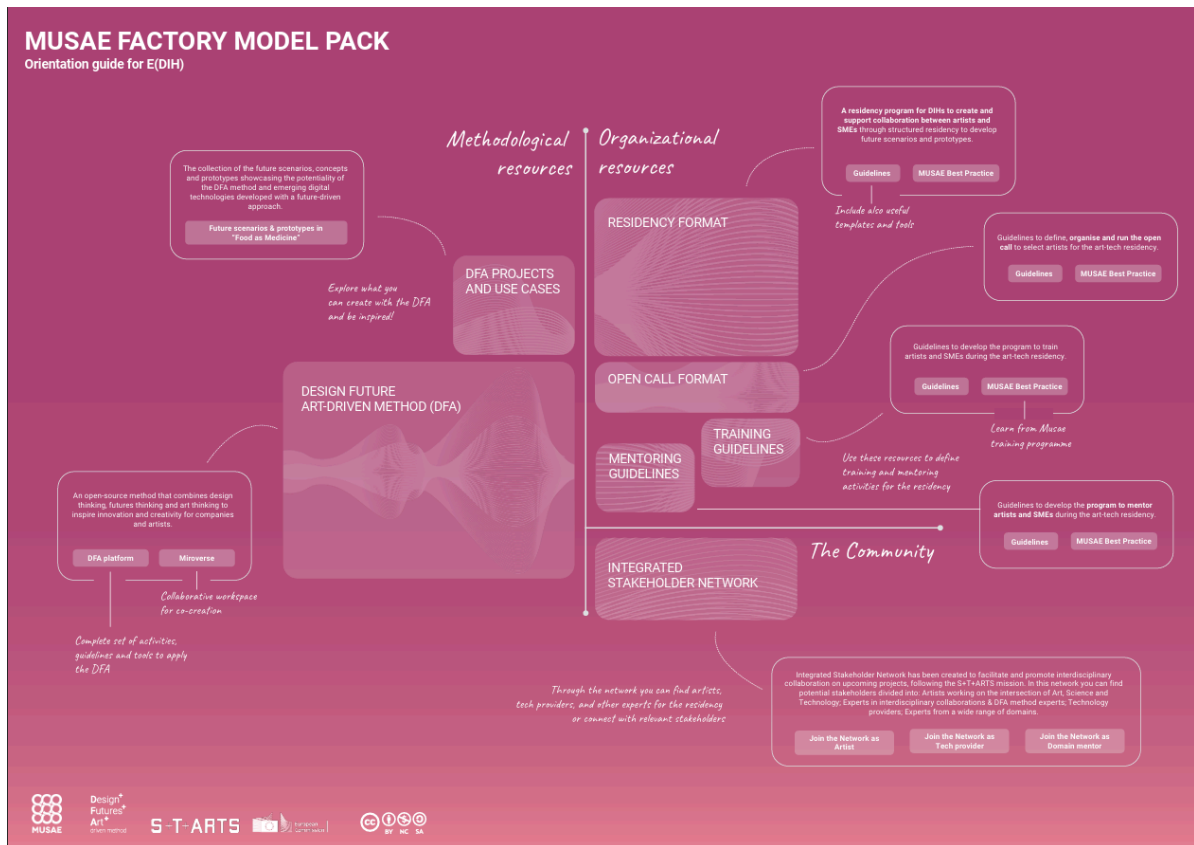
Fig. 17. Orientation guide for (E)DIH

3.5 Orientation Guide for Educators

A secondary but relevant target group addressed by the MUSAE Project are Art&Design educators, as well as Higher Education Institute that could integrate the DFA method in their curricula. They can equip students with the DFA method to anticipate and design for future challenges, enhancing the skills which will be relevant in the near future on the employment market.

From here, the need to build a dedicated orientation guide for educators (ANNEX V) to support educators and facilitators who wish to apply the Design Futures Art-driven (DFA) Method in their teaching or collaborative activities. It provides a clear overview of the available resources about the DFA available on both the website and the Factory Pack, and how to integrate them into their design-led futures learning paths. The Orientation Guide for Educators is available at this link.

4 Label

The Factory Model Label (Fig. 18) certifies the (E)DIHs to adopt the innovative approach and apply it to the companies. The label enables DIHs, companies, and technology suppliers to

adopt the replicable Factory Model, promoting digital innovation by integrating scientific, technological, and artistic insights.

By getting the Label, (E)DIH will:

● Access the Integrated Stakeholder Network

● Be certified to use the MUSAE Factory Model

● Offer the Factory Model as a service to SMEs

● Share use cases and best practices across their ecosystem.
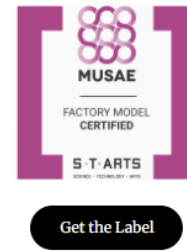

Fig. 18. MUSAE Factory model label

A dedicated co-design process was led by POLIMI with MADE and ETF to define a user-friendly strategy to promote and assign the label to interested DIHs. The final strategy focuses on ease of access and wide diffusion, based on a lightweight profiling process through a set of simple questions. Therefore, in order to apply for the Label, each (E)DIH have to fill out a specific form available on the MUSAE web page (Fig 19) and accessible at this link and they will receive an automatic e-mail (ANNEX VI) where they can download the label and instructions on how to use it. They will also automatically be included in the MUSAE Stakeholder Integrated Network.

Once labelled, MUSAE Certified (E)DIH can be featured on the MUSAE website with their logo, reinforcing community visibility and enabling further growth of the Factory network (Fig. 19).

HOW TO GET THE CERTIFIED FACTORY MODEL LABEL

The Factory Model Label certifies the Digital Innovation Hubs to adopt the innovative approach and apply it with the companies. The label enables DIHs, companies, technology suppliers to adopt the replicable Factory Model, promoting digital innovation by integrating scientific, technological, and artistic insights.

In order to apply for the Label, DIH can fill out the form and receive the label and automatically be included in the MUSAE Stakeholder Integrated Network.

Get the Label

FACTORY MODEL CERTIFIED DIHs

Milan, Italy

Belgrade, Serbia

Romania. North East

Fig. 19. Section of the MUSAE web page where apply for the label and see the (E)DIH that already got it.

Conclusion

The Factory Model Pack and Label marks a key milestone in the MUSAE project's ambition to establish a people-planet-centred, art-driven approach to sustainable technological development. Developed through an iterative, collaborative, and research-informed process, the Pack offers a complete and open-source set of methodologies, tools, and formats that empower European Digital Innovation Hubs to adopt, implement, and scale the MUSAE Factory Model in their innovation ecosystems.

By clustering the resources into methodological, organisational, and community categories, the Pack enables (E)DIHs to design and manage visionary Art-Tech residencies, stimulate collaboration between artists and SMEs, and generate innovation that is both technologically advanced and socially meaningful. The development of the Pack - alongside the Factory Model Label and its accompanying orientation materials - represents a deliberate shift from a project output to a long-term, actionable infrastructure. It turns the MUSAE website into a living, evolving platform that continues to disseminate knowledge, support educators, connect stakeholders, and grow the STARTS ecosystem beyond the project's lifetime.

Ultimately, the MUSAE Factory Model Pack and Label offer a replicable and scalable innovation framework that reinforces the value of transdisciplinary collaboration and future-oriented thinking. They equip (E)DIHs with the capabilities and resources needed to lead responsible digital innovation and spread this approach among the networks of their SMEs in Europe.