

**DELIVERABLE 3.2**

# FAB CITY HUBS TOOLKIT

Alpha Version

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## EXECUTIVE SUMMARY

CENTRINNO is a Horizon 2020 project that aims to develop strategies, approaches, and solutions for the regeneration of neglected industrial historic sites and areas into locally productive, sustainable, and inclusive hubs ([Wippoo, M. et al., 2021](#)). It proposes to explore, implement and support the emergence of a new type of hubs, the Fab City Hubs (FCHs), in the nine pilot cities (Amsterdam, Barcelona, Blönduós, Copenhagen, Geneva, Milan, Paris, Tallinn, Zagreb) as testbeds for sustainable manufacturing in urban environments.

**The Fab City Hub (FCH) Toolkit**, the subject of this deliverable, aims to be a practical and living support, to understand and document the process and the fundamental steps that need to be undertaken to conceive, set up, and run FCHs as well as support the pilots in this process. This Toolkit will be developed in three iterations during the lifespan of CENTRINNO project and will progressively engage pilot cities in its co-design, in order to merge theoretical assumptions with real-world experimentation.

This first version sets the basis for the conceptual approach to this Toolkit. It proposes a flexible and adaptable infrastructure, through the Ways of Navigating (Chapter 4) while anchoring this approach to the 5 key concepts in alignment with the CENTRINNO Framework ([Muñoz Unceta, P. et al., 2021](#)).

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## ACRONYMS AND ABBREVIATIONS

Acronym	Description
BM	Business Model
CE	Circular Economy
CENTRINNO	New CENTRAlities in INdustrial areas as engines for inNOvation and urban transformation
CCN	Co-Creation Navigator
CH	Creative Hub
CM	Consortium Meeting
EN	Emotion Networking
FCH	Fab City Hub
FCGI	Fab City Global Initiative
GA	Grant Agreement
He	Heritage
IS	Innovation Spaces
MFA	Material Flow Analysis
MUHUBA	Museum of History of Barcelona
PAP	Pilot Action Plan
SI	Social Inclusion
ToC	Table of Contents
VT	Vocational Training
WP	Work Package

# 1. INTRODUCTION

## 1.1 Purpose and scope

The Fab City Hubs (FCH) Toolkit is devised as a cohesive and contextualized collection of activities, tools and methods that will support the nine CENTRINNO pilot cities as well as others to come after these four years, to implement, maintain and support FCHs in their specific context. ([Muñoz Unceta, P. et al., 2021](#))

This first version aims at unfolding the conceptual background that has inspired the development of the Toolkit, developing its methodological structure that will support further iterations. Furthermore, it provides an operational approach that will clarify how tools and methods related to the setting up of the FCH will be collected, classified, tested and updated through feedback loops between theory advances and the pilots' experimentation process.

It will be based on previous toolkits (e.g., ECHN Creative Hub Kit<sup>1</sup>, REFLOW Collaborative Governance Toolkit<sup>2</sup>), as well as other resources developed within CENTRINNO, such as the Creative and Productive Hubs Journal ([Amato, D. e al., 2021](#)) or the CENTRINNO Framework ([Muñoz Unceta, P. et al., 2021](#)).

The FCH Toolkit will be developed in three iterations, building interconnections with other efforts such as the evolution of the CENTRINNO Framework, other activities and resources developed in the project, as well as the pilot experimentation process along with its 3 sprints.

The FCH Toolkit is a hands-on toolkit for cities explaining how to set-up the FCH. There are several resources developed in CENTRINNO that reflect upon and explain the project's approach to transform historic industrial areas, including the development of a FCH, to diverse target audiences. While other resources, such as the CENTRINNO Framework<sup>3</sup> or the CENTRINNO Handbook<sup>4</sup> target the research community or policy makers willing to replicate or modify the project's overall framework, the FCH Toolkit targets social organisations, makerspaces, entrepreneurs, innovators or any local actor who want to change their urban environment towards a more productive and creative ecosystem. It provides guidance to trigger a bottom-up process by implementing their own FCH.

## 1.2 Connections to other WPs

The FCH Toolkit builds its conceptual framework upon the work developed in other WPs and deliverables within CENTRINNO.

In particular, it takes its foundation on the research and insights developed in **D3.1 Creative and Productive Hubs Journal** and it follows the overarching framework developed in **D1.2 CENTRINNO Framework**, which sets the structure for the experimentation of the overall project, as well as the **D4.1 Detailed Pilot Planning and Monitoring Framework**, which describes the strategy for pilot coordination and the local Pilot Action Plans.

The Alpha version contains an entire chapter - **Chapter 5 Co-designing the Fab City Hub Toolkit** - that provides basic information and a first analysis of each pilot's roadmap toward their local FCH based on activities developed in each pilot city and extensively reported in **D4.2 Collective Results Sprint 1**.

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<sup>1</sup> [https://creativeeconomy.britishcouncil.org/media/uploads/files/Creative\\_HubKit.pdf](https://creativeeconomy.britishcouncil.org/media/uploads/files/Creative_HubKit.pdf)

<sup>2</sup> <https://governance.reflowproject.eu/>

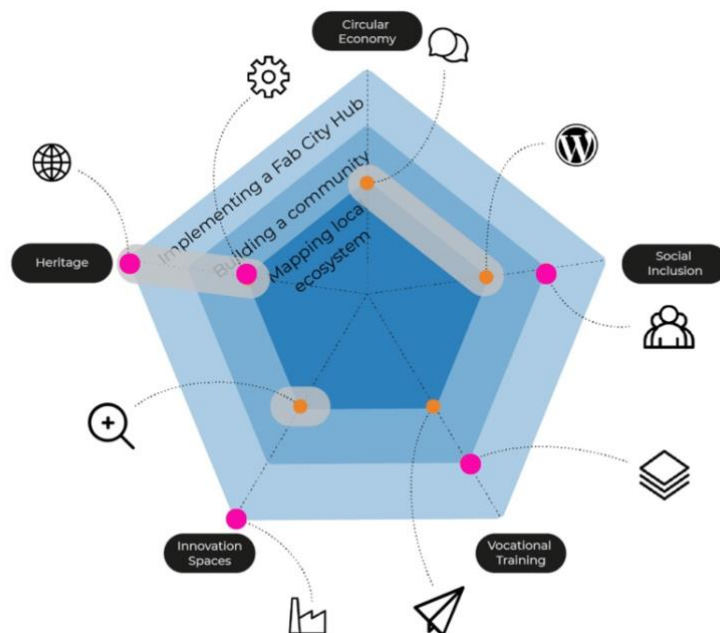
<sup>3</sup> <https://framework.centrinno.eu/>

<sup>4</sup> It will be developed at the end of the project

The FCH Toolkit being a resource that aims to accompany Pilot cities in their Experimentation Process, this deliverable and its further iterations will be developed in close collaboration with pilot activities. For this reason, further deliverables from **WP4** such as **D4.3 Collective Results Sprint 2** and **D4.4 Collective Results Sprint 3** will be fundamental inputs for the FCH Toolkit development and its advancements.

The conceptual approach proposed, and its further iterations will take into account insights reported in **D5.1 Evaluation Methodology**, in order to develop a coherent framework that will be able to evaluate results obtained by pilots using specific tools and methods selected from the Toolkit. Therefore, further deliverables within **WP5**, **D5.2** and **D5.3**, will be developed in alignment with **WP3** and this Toolkit.

Moreover, efforts and methods developed within **WP2** have a clear connection with the FCH Toolkit. In particular, the **CENTRINNO Cartography** and the **CENTRINNO Living Archive**, as well as methods and tools developed within these resources, will support Pilots in their local development of FCHs. For these reasons, tasks and deliverables within **WP2** will be also taken into account in the next versions of the present Toolkit.



*Figure 1 - CENTRINNO Framework and FCH Toolkit (pink dots)*

### 1.3 Structure of the Document

This deliverable is structured into six main chapters and an Annex. Its purpose is to report on the research conducted during the period from M6 to M18 that has been fundamental in developing and conceiving the conceptual approach to this deliverable as well as the activities developed within T3.2.

The current chapter, **Chapter 1**, works as an introduction and it is composed of four main sections: the present one (Section 1.3), the Purpose and Scope of this document (Section 1.1), Connection to other WPs (Section 1.2), and a Glossary of Terms (Section 1.4).

**Chapter 2** and **Chapter 3** focus on the why and how of a FCH Toolkit during and after CENTRINNO, while **Chapter 4** and **Chapter 5** develop, respectively, the conceptual approach to the FCH Toolkit and the co-designing actions toward its development. Finally, **Chapter 6**

exposes the conclusions and the next steps within WP3 toward further iterations of this Toolkit. In the Annex, a selection of tools is proposed.

## 1.4 Glossary of Terms

Along with the process of developing the FCH Toolkit, a series of terms and expressions emerged as the foundational concepts and terms that will structure and nurture the Toolkit. This Glossary aims to provide an overview of these terms, to clarify their meaning and use within this research. A previous effort has been made in this regard by the Glossary developed in the CENTRINNO Framework ([Muñoz Unceta, P. et al., 2021](#)). This work builds upon that Glossary, from which some terms are reported (*as a list of the terms here below*), others are reported (*in italic*) and expanded (straight) when necessary for the sake of this deliverable.

- *Infrastructure*
- *Method*
- *Tool*
- *Toolbox*
- *Program*

**Toolkit:** *A curated selection of tools that follows a specific logic. This logic is defined by the context of application of the tools. It should include a description of the potential purposes for each of the tools, which combined follow an overall objective. There could be different combinations of tools according to the context defined and the overall objective.* This present Toolkit will gather not only tools but also other types of resources, such as good practises, activities and events format that could be replicated and adapted by others.

**Ways of Navigating:** it is an expression that translates the conceptual approach used to develop the FCH Toolkit. It aims to grasp the complexity of building a toolkit that should answer manifold needs as well as providing a solid and unique infrastructure. In practical terms it defines the different entry points a Pilot city or an end-user could adopt to search for specific tools or for a strategic roadmap. In this Alpha version of the FCH Toolkit two Ways of Navigating are proposed:

- “I am searching for tools to work on a specific key concept” that proposes tools selected and organised according to a Tailor-made Tagging System based on the 5 key concepts.
- “I want to set up a hub from scratch” based on a proposed roadmap, the FCH Roadmap.

**The CENTRINNO Tailor-made Tagging System:** it is a suggested tagging system to analyse, test and assess the resources selected within the FCH Toolkit. In this first iteration of the Toolkit, the tagging categories proposed are the 5 key concepts. More tagging categories could emerge in further iterations of the Toolkit as a way to better analyse the purpose of a tool.

**FCH Roadmap:** it is a strategic plan that outlines a proposed step-by-step journey to follow in order to set up an FCH. The Roadmap proposed in this Alpha version will be updated in the next iteration based on insights and feedback from activities developed within CENTRINNO.

**FCH Trello:** it is a visual support proposed in MIRO<sup>5</sup> and used during the ‘*Building the FCH Toolkit*’ workshop held in Amsterdam in the last Consortium Meeting in October 2021 to display and manage a chronological workflow of actions. The name ‘Trello’ has been chosen since it refers to one of the most known Kanban-style<sup>6</sup> web applications to manage workflow.

<sup>5</sup> <https://miro.com/app/board/uXjVOV5wlgE=?moveToWidget=3458764517119038745&cot=14>

<sup>6</sup> [https://en.wikipedia.org/wiki/Kanban\\_board](https://en.wikipedia.org/wiki/Kanban_board)

**The FCH Step-Cards:** they are visual supports in the shape of cards presented on MIRO<sup>7</sup> and used during the 'Building the FCH Toolkit' workshop. These cards translate the 10 principles for FCH (D3.1) into a set of possible actionable steps for setting up and maintaining FCHs. The 12 Step-Cards proposed during the workshop will be updated in the next iteration of the Toolkit based on feedback from Pilots and Partners.

**Previous resources/ Previous Toolkit:** it indicates the resources/toolkit mentioned in the GA that are considered as the foundational sources for the FCH Toolkit, namely those are: the Creative Hub Kit, The REFLOW Collaborative Governance Toolkit (RCGT), the Citizen Sensing Toolkit, the Co-Creation Navigator, the Civic Design Method.

**Key concept 'Owners':** it is an expression, internal to CENTRINNO, used to describe those partners involved in specific tasks within WP4 and related to a specific key concept.

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<sup>7</sup> <https://miro.com/app/board/uXjVOV5wlgE=?moveToWidget=3458764516615869823&cot=14>

## 2. WHY A FAB CITY HUB TOOLKIT

This chapter explains the role of the FCH Toolkit in supporting the emergence of innovative models of Hubs, the Fab City Hubs. It explains the relation with the Fab City Global Initiative and its legacy after the project end (Section 2.1). Section 2.2 provides a short overview of the main features, challenges, and limitations that toolkits have in general terms. While section 2.3 explains why the present toolkit should be conceived as a living tool and sketches out possible paths to maintain the FCH Toolkit alive after the CENTRINNO lifespan.

### 2.1 The Fab City Hub Toolkit and the Fab City Global Initiative

One of the main objectives of CENTRINNO and the overarching challenge that drives the experimentation process of the Pilot Cities is to set up, run and maintain innovative models of creative and productive hubs, called Fab City Hubs. These innovative urban typologies will be drivers of alternative urban regeneration processes in nine different European sites ([CENTRINNO project, 2020](#)).

The FCHs emerged from the Fab City Global Initiative and are an evolution of Fab Labs, living labs, and maker spaces. They give access to activities on production, knowledge, and innovation in a holistic way and from a multi-layered perspective ([Amato et al, 2021](#)). These innovative typologies are also **concentrators and connectors of urban actors** that aim, through community creation, to sustain the co-designing of situated responses to local needs and the creation and support of a global network of knowledge-exchange practises among those like-minded actors.

The FCH Toolkit is an iterative effort during and after the project end to support the emergence of these new typologies of hubs. This endeavour has already been initiated by the Fab City Global Initiative (FCGI). In particular, the FCH Toolkit builds upon and is complementary to a series of previous resources<sup>8</sup>, some of which developed in other European projects that will be extensively explained in [Section 3.2](#).

Given the close relation and continuity between the FCGI and the CENTRINNO project, FCHs are key pieces of the Fab City Full Stack<sup>9</sup> or recently updated in Strategic Action Plan ([Diez, 2021](#)). The outcomes of the different approaches to FCHs tested during CENTRINNO will be shared using the Fab City Network and they will potentially influence others of the 38 cities of this network. Accordingly, the FCH Toolkit should be an effort that will continue after CENTRINNO.

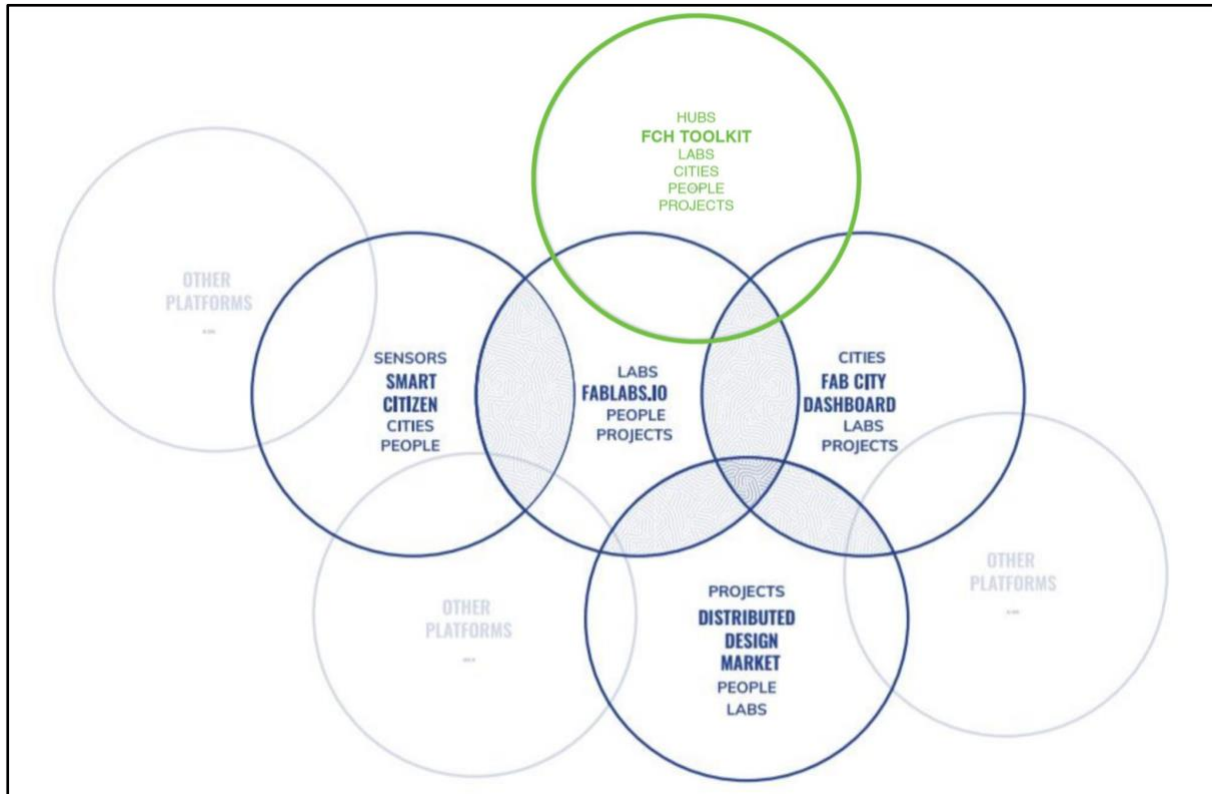
FCHs in fact aim to work as city-scale interfaces locally engaged with communities of makers, common citizens and authorities but also globally connected to a network of other Fab Cities that, through dedicated platforms, would share knowledge, experiences, toolkits, frameworks and methods on how to achieve the overarching challenge of the FCGI, which is to produce everything they consume by 2054.

As shown in *Figure 2*, the FCH Toolkit could potentially become one of the next platforms of the Fab City platform ecosystem diagram.

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<sup>8</sup> The FCH Toolkit will be added to the list of these mentioned resources and previous toolkits, already made available in the Fab City Handbook - <https://fabcity.gitbook.io/handbook/toolkits>

<sup>9</sup> [https://fab.city/uploads/Fullstack\(27sep\).pdf](https://fab.city/uploads/Fullstack(27sep).pdf)



**Figure 2 - The current platform's Ecosystem of Fab Cities and a proposal for FCH Toolkit**

## 2.2 Common features of Toolkit

This section provides an overview of the main characteristics the toolkits should have in order to facilitate the implementation of the objective they are designed for. A list of the main and common features of toolkits will be reported, based on the analysis of previous resources and desk research. The following features have also been embedded in the development of the FCH Toolkit.

In general terms, toolkits are described as “a collection of authoritative and adaptable resources that enables one to learn about an issue and identify approaches for addressing them”<sup>10</sup>. For their hands-on feature they “facilitate wide-spread adoption of a particular best practice or concept”<sup>11</sup>. They are also means to raise awareness and suggest strategies to specific users and for a specific objective<sup>12</sup>.

Toolkits could contain a diversified set of resources that could vary from practical tools, methods, and frameworks, to strategies and best practises. The common thread of these resources is that they have to be contextualised and embedded into a logical process or a roadmap to achieve the final objective. Indeed, tools and methods are only effective if you know when and how to use them properly ([Wippoo, M., 2021](#)).

Toolkits, as an example, are largely used within protestors' milieu to rapidly share practical instructions for action coordination and faster execution of projects<sup>13</sup>. To that end, they have to provide both generalised and highly flexible instructions to be adapted into different local contexts.

<sup>10</sup> See [Toolkit Creation Guide. Pdf](#)

<sup>11</sup> See above.

<sup>12</sup> See [Economic time, 2022](#)

<sup>13</sup> See above.



Toolkits aim to translate theory into practice ([Chen, W. et al., 2017](#)), thus they should provide a strong understanding of processes and suggest fundamental questions or frameworks to analyse the specific context in which users will have to deal with in order to achieve their objective.

Most of the time, toolkits provide maps or paths to follow<sup>14</sup>, those maps have the role to orient the users toward the most appropriate path to undertake for achieving the final objective.

Toolkits do not aim to provide solutions to all questions but inversely, to indicate strategic approaches to specific problems. For these reasons, they should be designed to be flexible and iterative, providing a highly adaptable infrastructure, being user-friendly and intuitive.

Toolkits should also facilitate interaction among people, those who have conceived and developed the toolkit as well as end-users. Ideally, these two groups should progressively merge one into the other, and the toolkit development should be the result of feedback loops among them. For them to be effective in the long term, Toolkits should facilitate the integration of feedback from real-world experience.

## 2.3 FCH Toolkit as a 'living tool'

The FCHs are indeed emerging typologies of innovative urban models that started to be tested within the CENTRINNO project. Potentially, other cities in Europe and across the could be inspired and will be able to replicate this experimentation process adopting the CENTRINNO approach. In addition, the nine FCHs initiated by CENTRINNO's Pilot cities will continue to grow and to test new approaches and tools in order to keep operations going.

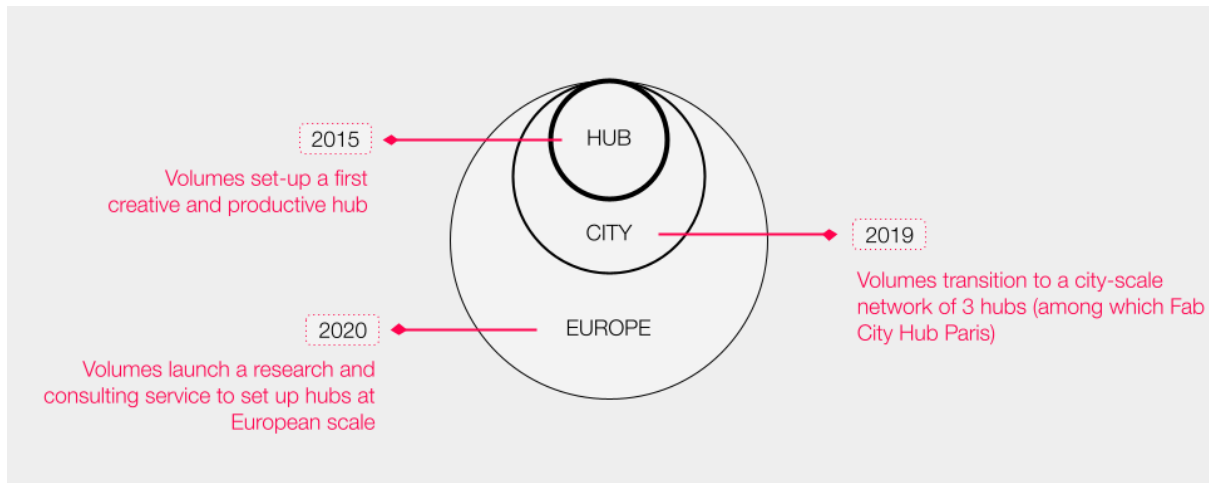
Therefore, the legacy of the FCH Toolkit is to be the foundation of a 'living tool', eventually under the form of an open access platform that will continue to support, document, and exchange on how to implement and run creative and productive hubs across Europe and worldwide.

As a matter of fact, Volumes, within CENTRINNO, has the mission to build and coordinate FCHs as network activators. But this mission goes beyond CENTRINNO itself and is in line with the general development strategy of Volumes as a company. It is Volume's objective to shape and keep using the FCH Toolkit in order to grow the network of FCHs, keep building a common vision of what a FCH is and expand the tools and methods that are suitable for that purpose, also and especially after the project ends. For these reasons the FCH Toolkit is thought of as a 'living tool' to keep this network active and make it expand way beyond CENTRINNO.

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<sup>14</sup> <https://ccn.waag.org/navigator/>





**Figure 3 – Volumes' development strategy**

A deeply inspiring example that has influenced the conceptualization of the FCH Toolkit, is the CC-Navigator platform. It is a toolkit about the process of co-creation developed by Waag within the context of three main European Horizon 2020 projects, Cities for People<sup>15</sup>, Big Picnic<sup>16</sup>, Mobility Urban Values<sup>17</sup> & Civitas<sup>18</sup>.

The CC-Navigator toolkit, which will be extensively explained in the next chapter, is conceived as an open access platform, constantly nurtured by its users, by sharing their own preferred methods, and also by Waag, through their research and efforts on co-creation within the Co-Creation Lab.

Online (interactive) platforms seem to be a suitable and powerful format to develop a Toolkit that will be capable of creating a living space to connect people, data and projects on a given subject. (Diez, T., 2020)

Accordingly, the FCH Toolkit conceived as a platform, will have the potential to:

- Facilitate the improvement of the toolkits and its tools by embedding insights and feedback from in-field experiences as well as theory advances.
- Foster connections between people, and organisations involved in setting up and running creative and productive spaces. Some potential developments could be to set up a dedicated communication channel, such as Slack, to create a dedicated Wiki on FCHs, to be a space to foster the organisation of learning expeditions to inspirational FCHs, etc.
- Facilitate connections with experts and provide training on specific subjects and needs related to the challenges of setting up and maintaining FCHs. Some examples could be the replication of Fab City Hub Voices<sup>19</sup> webinar, webinar on other specific subjects such as business model, communication strategies, etc.

<sup>15</sup> More information at <https://cities4people.eu/>

<sup>16</sup> More information at <https://www.bgci.org/our-work/projects-and-case-studies/bigpicnic/>

<sup>17</sup> More information at <https://www.muv2020.eu/>

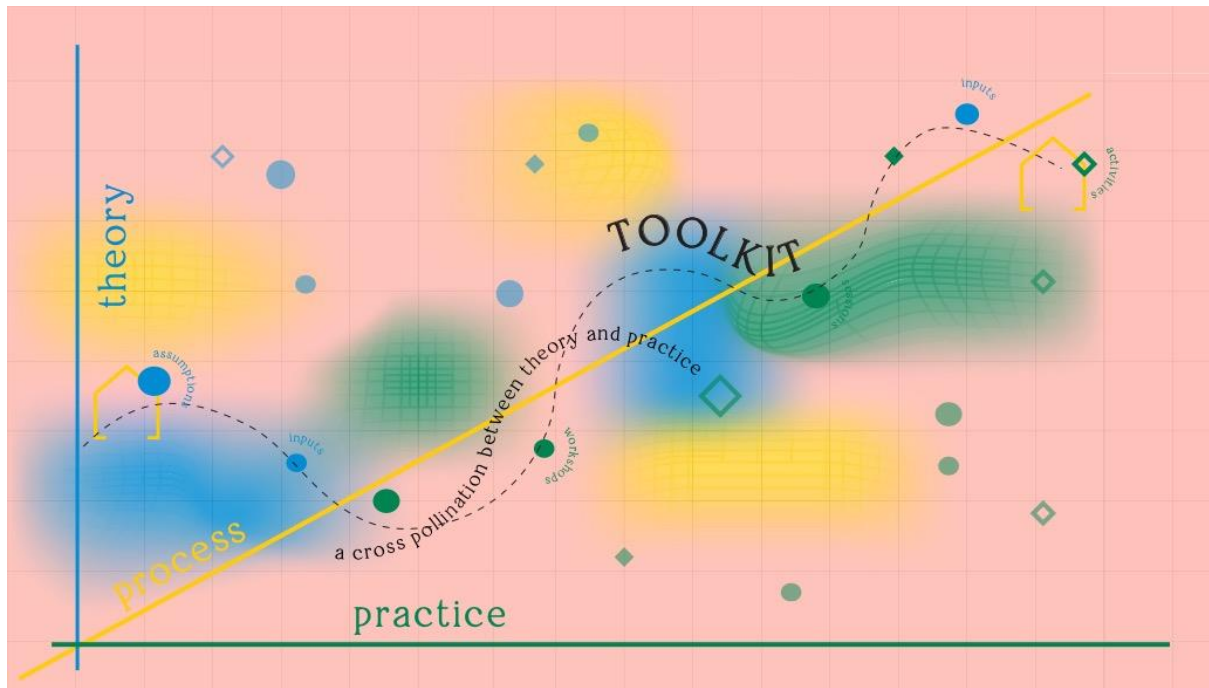
<sup>18</sup> More information at <http://civitas.eu/>

<sup>19</sup> See [this video](#) as an example of this format.

### 3.THE FAB CITY HUB TOOLKIT DEVELOPMENT

This chapter explains how the development of the FCHs has been conceived. Section 3.2 provides an exhaustive summary of resources and efforts indicated in the GA as primarily sources for building the present FCH Toolkit. Furthermore, 2/3 tools relevant to CENTRINNO's Pilot cities were extracted from the previous toolkits (Annex). Moreover, it also describes the activities developed in T3.2 and provides its results in the form of tools to feed the toolkit.

#### 3.1 FCH Toolkit: feedback loops between theory and practice.



**Figure 4 - Toolkit as a process combining theory and practice**

One of the main characteristics of toolkits is their capacity to translate theory into practice and to do that in a universal as well as flexible way in order to be used in different contexts. In fact, they provide both a clear understanding of processes as well as the necessary tools to trigger these processes toward the final objective.

The CENTRINNO project itself is a large-scale research project and aims to progressively test approaches and methodologies through real-world experimentation activities in 9 Pilot cities. Specifically, the role of the FCH Toolkit within CENTRINNO is to support this experimental process toward the definition of the FCH and its implementation. For these reasons, this Toolkit is itself conceived and developed as a process. It is the result of a series of actions, along with three iterations, designed to assure a continuous cross-pollination between theory and practice.

This Alpha version aims to set the main approach to that process and design a flexible infrastructure that will allow these feedback loops.

The diagram above (Figure 4) visualises the growing process that has been and will be adopted along with the three iterations of this Toolkit. It shows how it will progressively evolve by merging theoretical assumptions to in-practice testing activities. Along with its three iterations, this diagram also shows that the contributions to the Toolkit will progressively shift from an initial starting point where a large number of contributions stemmed from theory to an increasing final one where the majority of inputs will be derived from the direct experience of the Pilot Cities.

Accordingly, the ideation process of this first Alpha version has been mostly inspired by inputs stemming from theoretical resources such as previous Toolkits analysed in Task 3.1 and insights from the D3.1 Creative and Productive Hubs Journal.

Then, after the release of this Alpha version, the Toolkit will progressively grow by embedding feedback and insights from Pilots' experiences and through activities within WP3 (T3.3, T3.4 and T3.5) that will be designed with two main purposes:

1. To respond to Pilots' needs, expressed during previous co-creation sessions and workshops (Chapter 5) and others to come, through interactions and through their periodical reporting periods.
2. To test with Pilots the relevance of the approach proposed in this Alpha version (Chapter 4) and to adapt it accordingly.

The final version of the FCH Toolkit will then be the result of these interactions and feedback loops with Pilot cities on what the possible ways to set up FCHs are and what the effective tools to be used to achieve this objective are.

## 3.2 General overview on previous Toolkits

This section provides a detailed overview of the main resources developed prior to CENTRINNO, which have inspired and will underpin the development of the FCH Toolkit both for their content and the specific tools they present.

As indicated in the GA these resources are:

- The Creative Hub Kit developed by ECHN
- The REFLOW Collaborative Governance Toolkit developed within the REFLOW project
- The Citizen Sensing Toolkit
- The Co-Creation Navigator developed by Waag
- The Civic Design Method developed by Volumes

The CENTRINNO partners, namely ECHN, IAAC, WAAG and Volumes, which have been involved in the development of these works, provided an analysis of these resources to underline their main content and the relevance with the FCH Toolkit. In addition, the CENTRINNO partners have selected, following their expertise, 2-3 significant tools for CENTRINNO Pilot cities.

The selected tools have been reported in the Annex following a specific template.

### 3.2.1 The Creative HubKit

The Creative HubKit<sup>20</sup> is a toolkit commissioned by the British Council during the early stages of the European Creative Hubs project. Its main purpose is to provide insights into how creative hubs are formed, structured and sustained, with a particular focus on managerial practises for those hub managers who want to set up or to set right emerging creative hubs. The HubKit aims also to illustrate some of the experiences and approaches from successful and sustainable hubs, mixing theoretical indications with practical examples.

This toolkit was created in light of the rise of new innovative creative spaces across the world: creative hubs, along with the communities composing them, raised in numbers, attracting professionals from different fields, encouraging collaborations, adopting new forms of leadership, operating through new and hybrid business models and generating social

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<sup>20</sup> [http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf)

innovation. Because of the relevance of this phenomenon, the British Council organised the first European Creative Hubs Forum to share insights, tools and resources among a broad community.

The main premise of the HubKit is that a hub's most solid foundation is a strong community. Hubs cannot simply be a response to a space opportunity but need their community at the forefront. The HubKit explains why engaging with a community of users from the start can lead to a much more holistic and sustainable model.

The first section of the HubKit is dedicated to the definition of '**creative hubs**'. Hubs may take many forms, from makerspaces to labs or clusters, but share a series of functions and features. Ultimately, a creative hub is a place, either physical or virtual, which brings creative people together. It is a convenor, providing space and support for networking, business development and community engagement within the creative, cultural and tech sectors. Hubs may come in different models, which cater to their communities in different ways: small studios, large scale centres, networks, clusters, online platforms or alternative models.

Regardless of the big variety of a hub's administrative structures, sectors and offers, the HubKit is a 7-steps recommendation on how to set up a strong creative hub in a solid community. The seven steps form an organic trajectory, but the toolkit analyses them singularly. Some of them address a hub's internal focus, others a hub's external focus; either way, each step is presented specifying its specific objectives and the tools it requires. Additionally, a section named '**Hub Insider**' showcases a real-life example of a hub, as a practical explanation of the step's theory.

The seven steps identified by the HubKit are:

1. Defining the vision
2. Connecting the network
3. Designing the opportunity
4. Building it to last
5. Communicating strengths and impacts
6. Reviewing and improving
7. Sustaining and scaling

After scrutinising each step for setting up a creative hub, the toolkit offers a brief summary of each step's main points. The last bit of the toolkit leaves space for a short list of recommended resources to the reader's interest.

Three tools were selected for the FCH Toolkit:

- **Finding your Champions**
- **Tracking the Benefits**
- **Designing with and for the Community**

These tools are further explained in [the Annex](#).

### 3.2.2 The REFLOW Collaborative Governance Toolkit

The REFLOW Collaborative Governance Toolkit<sup>21</sup> (RCGT) is an online resource to support policy and decision makers, researchers and practitioners in the development of collaborative governance models for the transition to circular and regenerative cities. It has been developed in the REFLOW project<sup>22</sup> and it has three main sections: an ‘about’ page, the ‘toolbox’, and ‘toolkit in practice’, which showcases different collaborative governance experiences. The version described here is the second one, but there will be, yet another version developed by the end of the project.

The toolkit’s main premise is that unfolding circular and regenerative practises in cities requires new governance arrangements and collaboration models between diverse stakeholders and across different scales. Collaborative governance is defined ([Frosini et al, 2021](#)) as an “open-ended infrastructure process, a continuous work of providing the means for action, discovering and learning within a loose steering and coordination framework that supports both present and future collaborations”. The transition to a circular city is a long-term systemic process that requires different levers to trigger and support change. The RCGT includes a set of levers, from data and tech to roadmaps and strategies, awareness rising, or public procurement, among many others. The toolkit also considers three dimensions in the transition to the circular economy: strategic, operational and relational. Each tool in the toolbox is connected to one or several of these levers and to one or several of the three dimensions.

The toolkit currently includes 11 tools for collaborative governance. This number is expected to increase in its last version. Each tool page includes a definition, step by step instructions, and a downloadable canvas, hosted in MIRO<sup>23</sup>. Tools vary in approach and scope, but most of them should be applied collectively with a group of stakeholders in order to visualise and reflect upon the work done so far, make decisions and plans over future tasks, or think of innovative ways to stir the group’s actions.

The toolkit includes a section called ‘toolkit in practice’ in which collaborative governance is illustrated through examples. Currently, these include Municipal Covered Markets as testbeds for circular value flows in the food system of Milan, the opportunities brought by Fab City Global Initiative to Fab City Zagreb, Paris, and Barcelona, the Circular Cities Declaration as a shared vision for circular cities, and how Vejle is using the portfolio approach (one of the tools included in the toolkit) to achieve circular plastic flows.

Even though which tools in the RCGT are more suited for the CENTRINNO approach may vary depending on the local context, three tools were selected as interesting examples for the FCH Toolkit:

- **Circular Challenges and Opportunities**
- **Circular Portfolio Canvas**
- **Matrix of Circular Collaboration**

These tools are further explained in [the Annex](#).

### 3.2.3 The Citizen Sensing Toolkit

The Citizen Sensing Toolkit<sup>24</sup> is a conceptual and methodological framework for participatory environmental maker practises. It provides citizens and communities with tools to develop a citizen sensing project. Different tools are described for different purposes, such as enhancing communities’ everyday environmental awareness, enabling active intervention in their

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<sup>21</sup> <https://governance.reflowproject.eu/>

<sup>22</sup> <https://reflowproject.eu/>

<sup>23</sup> [https://miro.com/app/board/o9J\\_ILg\\_6jo=?fromEmbed=1](https://miro.com/app/board/o9J_ILg_6jo=?fromEmbed=1)

<sup>24</sup> <https://drive.google.com/file/d/10F8Htidmm0DZYFDXZ8122RzbFF34ivhr/view?usp=sharing>

surroundings, changing their individual and collective practises, and triggering a hands-on transformation of their environment. The tools are organised in a step-by-step guide, which is based on four cross cutting principles: empowerment, co-creation, change making and openness; and structured in eight framework steps:

1. Scoping
2. Community building
3. Planning
4. Sensing
5. Awareness
6. Action
7. Reflection
8. Legacy

The Citizen Sensing Toolkit was developed in the context of the Making Sense<sup>25</sup> project and is built on previous experience the project partners had in sensor monitoring and citizen-oriented practises, such as the Smart Citizen Kit<sup>26</sup>. The toolkit is rooted on the idea that open, participatory and citizen-based solutions for democratic management of data should play a major role in technological and data-based projects developed by the public sector. This combination of actors and approaches would provide a viable and more socially fair alternative to centralised solutions provided by big private actors acting on the global scale.

The framework's steps are correlative. A citizen sensing project may follow them one by one. Each step includes one or several tools and methods with different objectives. Any project would ideally choose the combination of tools and methods that suits its local context and goals. Each tool is briefly described and explained through step-by-step instructions. For tools applied in the Making Sense project, there are brief descriptions called "method in action" with insights gathered from the implementation process. At the end of the toolkit six case studies provide examples of citizen-based data collection and management. Tested in the Making Sense project, each case study provides local testimonies and findings about the use of different types of collected data (air quality, gamma radiation, noise) to understand and trigger changes in people's environment.

Relevancy of tools would depend on the local context and needs. Probably, the best strategy for communities interested in applying the Citizen Sensing Toolkit, would be to adjust and combine tools to fit their purpose. Nevertheless, three tools were selected as interesting examples for the FCH Toolkit:

- **Sensing Strategies Canvas**
- **Open Hardware**
- **Legacy Storylines**

These tools are further explained in [the Annex](#).

### 3.2.4 The Co-creation Navigator

The Co-Creation Navigator<sup>27</sup> (CCN) is an online platform with over 70 tools and methods, neatly presented following a process structure. It is meant for people who wish to work with a diverse group of citizens, users and/or stakeholders to develop new products, experiences and/or services in a co-creative, participative way.

The CCN is presented as a metroline-map showing a process for co-creation and participation as a metro-line with 5 stops on the way. At each 'stop' newly developed, and existing methods

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<sup>25</sup> <http://making-sense.eu/>

<sup>26</sup> <https://smartcitizen.me/>

<sup>27</sup> <https://ccn.waag.org/navigator/>



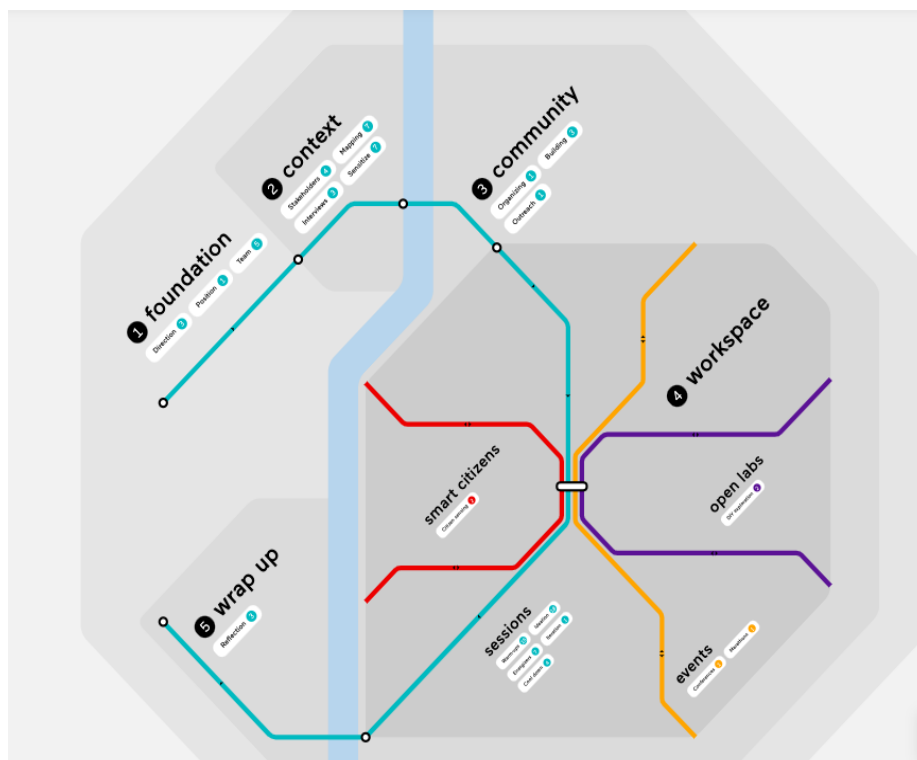
and tools relevant to that moment in the process are referenced. At the 4th stop, other 'supporting' lines are connected (like a stop-over station) to the main line. These other lines describe other processes that are not co-creative on their own, but they can be supportive to the co-creation process. These lines include 'Citizen sensing' and 'events'. All tools and methods are curated by an experienced staff at Waag Future Lab.

The navigation through the platform is based on the visual presentation. But there is also a filtering function, which allows the user to select, for example, tools and methods that can be used online, or that have a maximum number of participants.

There are multiple uses for the CCN:

- Experienced facilitators can use the CCN as a complete catalogue of tools and methods and explore the content of the platform.
- Inexperienced users will learn about co-creation and are introduced to a general structure for a co-creative process
- Future use: facilitators can add and share their own preferred methods

The platform is open access.



**Figure 5 - Screenshot of CCN interface**

In general, since all Pilots are working in a social innovation context, the overall process structure presented on the CCN is a relevant structure for them.

One method/tool from each 'stop' on the 'metroline' would be reported as a relevant tool to Pilot partners. Here is the list of the selected tools that will be reported in the Annex part:

- FOUNDATION - **Ambition Ranking**
- CONTEXT - **Stakeholder Trust Map**
- COMMUNITY - **Mini Campaign Challenge**
- WORKSPACE - **Ideation: Story Puzzle**
- WRAP UP - **History Map**

### 3.2.5 The Civic Design Method

The Civic Design Method<sup>28</sup> compiles reflections and tools for the practice of Civic Design: the design of processes focused on the activation of collective intelligence and the involvement of a community around a common goal.

The aim is to guide Civic designers in their thinking when defining the main actions and dynamics (steps) to follow, the main actors and communities (stakeholders) to involve and prioritising the contexts of action (situating).

The method offers a collection of reference concepts as a glossary and three tools that help in defining the process of activating a community (or collective intelligence), through an action plan (Doing), prioritisation of actors and collective dynamics (Thinking), contextualisation with the territory and the communities involved (Situating).

The Civic Design Method understands that learning and improvements can be produced through a theoretical process of research (thinking) but also through the process of execution or production itself (doing): situations or unforeseen conditions determine the need to act differently than planned, generating a discovery and ultimately a new learning.

One of the essential elements of this method is strongly related to the introduction of the Located Approach<sup>29</sup>. An approach that emphasises a cyclical process allows us to constantly re-position everything that has happened, was achieved and learned to improve and adjust the steps that follow. In this way, a more external and global dimension will be included in the process.

The method proposes a working structure with a circular and cyclical approach:

- Circular because it allows you to start with any of the three tools and continue in the most preferred order.
- Cyclical because once the three tools have been used, it is possible to start again with a new iteration that allows to take advantage of the findings and decisions taken previously during the first iteration with the three tools.

In order to make better use of the tools, it is also advisable to read the part of the glossary<sup>30</sup> that empowers those who approach this method to understand some of the dynamics or frames of reference that usually characterise collective processes, work with communities and the activation of collective intelligence.

Finally, it is worth specifying that the tools can be used individually or collectively. In the second case, it is essential to be accompanied by a facilitator. There is a strong advantage to using these tools collectively, which stems from the possibility of highlighting more rapidly the different ways of interpreting the context and prioritisation. It helps in underlining the most confusing and uncertain points. This way, by working collectively, the tools can be used to find a first point of consensus on divergent visions more efficiently, thus avoiding situations of open contrast and blockage due to a strong divergence between two or more actors involved.

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<sup>28</sup> <https://civicdesignmethod.com/>

<sup>29</sup> See previous note

<sup>30</sup> The abovementioned Glossary could be found in the CDM Whitepaper downloadable here: <https://civicdesignmethod.com>



Three main tools are available and will be further explained in [the Annex](#)

- **The Collective Intelligence Canvas:** designed to encourage and facilitate the reflection on the main dynamics, actors and elements to be taken into account to activate a community (or collective intelligence).
- **The Circular Process:** designed to encourage and facilitate the definition of an action plan with the chronology of the main phases, activities and dynamics to be taken into account to activate a community (or collective intelligence).
- **The Civic Realm Matrix:** designed to structure the analysis of the context in which a collective and collaborative project is developed, in order to facilitate the prioritisation process for choosing the actors with whom to interact, the places in which to work and the dynamics on which to intervene and those to promote.

### 3.3 Tools developed within WP3

The work done within WP3 laid the foundation for much of the content for the FCH Toolkit. This process was gradual, and the final batch of tools and knowledge resulted from two main fronts of the project.

#### 3.3.1 The Creative and Productive Hubs Journal

The first step consisted in the drafting of the “Creative and Productive Hubs Journal”, ([Amato et al, 2021](#)) a detailed document that debunks creative and productive hubs as trailblazers for innovative practises, paving the way for the upcoming FCHs in urban centres. This first deliverable was coordinated by the European Creative Hubs Network (ECHN), with the contribution of four other partners: Volumes, IAAC, Waag and META. An initial effort was made to outline the history of creative and productive hubs, highlighting how they emerged from complex socioeconomic dynamics that shaped Europe in the last decades. Creative and productive hubs emerged in urban centres during a time of transition from manufacturing to intangible economies. The first hubs laid the foundations for the FCHs to come, solidifying values such as innovative production, participation and hybrid spaces. CENTRINNO aims at going even further, implementing in its FCHs five main criteria: circular economy, social inclusion, vocational training, heritage and innovation spaces. Some already-existing creative and productive hubs represent some remarkable examples of how each criterion can be translated into practical actions. The second part of the deliverable collects a sample of remarkable hubs’ portraits, among which five were labelled as ‘starred’ because of their high performance and/or relevance to CENTRINNO’s criteria.

Volumes performed an analysis of this sample, which produced a series of principles that represent a preliminary set of recommendations to set up a FCH in CENTRINNO’s Pilot cities. Ten principles in total are grouped under three main categories, as follows:

#### FAB CITY HUB VISION

This group of principles aims to create a mindset from which the hub operators should look at their project and relative challenges. What is an FCH? What should one think about FCHs? How should one visualise the future of those hubs in relation to other actors, makers, institutions and private companies?

1. Principle one: **FCHs as ecosystem activators** Hubs act as “concentrators of urban interactions” ([Amato et al, 2021](#)) among different actors (communities, institutions, businesses). To do so, hubs need appropriate physical facilities and intangible assets (activities, public events, conviviality, free exchange...).

2. Principle two: **FCHs as physical devices for accessing distributed ecosystems** Actors are distributed in a city, and their impact depends on their mutual interaction. FCHs act as interfaces (physical spaces or landmarks) to connect different agents, communities and projects, and to guide newcomers who want to enter the local ecosystem.
3. Principle three: **FCHs as complex organisms enabling resiliency** CHs' structural, organisational, and functional aspects are predominantly hybrid, complex and non-hierarchical. This is also reflected in their space planning and the programs of their activities. As complex organisms, FCHs perform as resilient structures to fast-changing and hazardous environments.
4. Principle four: **FCHs as extensions of traditional institutions** Hubs represent a buffer zone for the prototyping of unusual assemblages of actors and functions. Hubs can attract more traditional institutions (schools, municipalities, private companies) and facilitate openness, networking and innovative thinking.

## FAB CITY HUB AND COMMUNITY

How should FCHs relate to their communities? Is a physical space needed to start the project? How can somebody make the project inclusive? How should the hub's operating team collaborate with those communities?

5. Principle five: **Community first, space after** Hubs are community builders and emerge from a dialogue involving different actors. Events and programming help build communities and co-create the hub's space.
6. Principle six: **Give voice to citizens** Hubs can provide their space for dialogue between citizens and local institutions, informal gatherings or networking. In this way, hubs act as platforms for bottom-up initiatives and debate.
7. Principle seven: **Focus on facilitating and empowering communities** A hub's team is recommended to act as a facilitator of processes and projects that happen among members. Such orchestration requires internal communication and distributed knowledge.

## FAB CITY HUB AND INFRASTRUCTURE

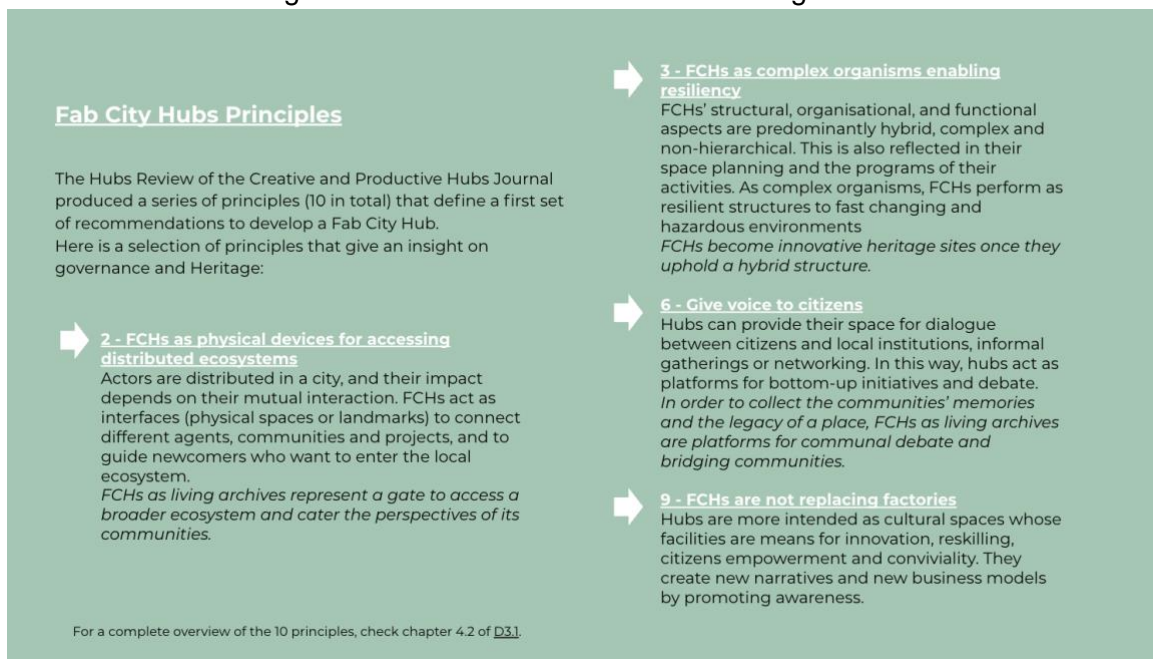
This group focuses more on tangible assets of the Fab City Hubs: what about physical space and fabrication facilities? How should those be managed or designed? Are productive facilities meant to replace traditional production or rather used to reskill local communities?

8. Principle eight: **Adopt an incremental approach, avoid overdesign** Instead of following a linear waterfall approach, where the space is fully planned and designed in advance, an incremental approach can leave space for real and situated needs to emerge from the community. This could simply mean to temporarily leave empty some portion of the space or without attributing it to a precise function for later occupation or transformation.
9. Principle nine: **FCHs are not replacing factories** Hubs are more intended as cultural spaces whose facilities are means for innovation, reskilling, citizens empowerment and conviviality. They create new narratives and new business models by promoting awareness.
10. Principle ten: **FCHs are multi-layered spaces, both physical and digital** External communication can be used to reach out to local and global communities.

### 3.3.2 Co-designing Local Creative and Productive Hubs

The ten principles abovementioned represent the first important achievement of WP3. The next step was to facilitate the co-creation activities of the Pilot cities, by providing knowledge and insights on typologies, organisational structures and governance models of creative and productive hubs. To achieve this, ECHN organised a series of thematic sessions focusing on CENTRINNO’s Key Concepts and building up on the previous work of the project.

Each session corresponded to a thematic month, where pilots would delve into one of the themes of the series. Due to time restrictions, the team focused on just three themes: social inclusion, vocational training and heritage. The selection depended on two factors: the urgency of a theme, as expressed on the Pilots’ Action Plan ([Wippoo, M.et al, 2021](#)), and the possibility to invite relevant guests from the team’s network. Different guest speakers were invited to present their experience and start a conversation with the Pilots, related to the month’s theme. In order to deliver something useful for the Pilots and consistent with the previous work, each session was built upon two main elements: the ten principles ([Amato et al, 2021](#)) and the Pilots’ Action Plans. The most relevant principles were selected for each thematic session, as a reminder of the main governance indications to discuss with guests and Pilots.



**Fab City Hubs Principles**

The Hubs Review of the Creative and Productive Hubs Journal produced a series of principles (10 in total) that define a first set of recommendations to develop a Fab City Hub. Here is a selection of principles that give an insight on governance and Heritage:

- 2 - FCHs as physical devices for accessing distributed ecosystems**  
Actors are distributed in a city, and their impact depends on their mutual interaction. FCHs act as interfaces (physical spaces or landmarks) to connect different agents, communities and projects, and to guide newcomers who want to enter the local ecosystem.  
*FCHs as living archives represent a gate to access a broader ecosystem and cater the perspectives of its communities.*
- 3 - FCHs as complex organisms enabling resiliency**  
FCHs' structural, organisational, and functional aspects are predominantly hybrid, complex and non-hierarchical. This is also reflected in their space planning and the programs of their activities. As complex organisms, FCHs perform as resilient structures to fast changing and hazardous environments  
*FCHs become innovative heritage sites once they uphold a hybrid structure.*
- 6 - Give voice to citizens**  
Hubs can provide their space for dialogue between citizens and local institutions, informal gatherings or networking. In this way, hubs act as platforms for bottom-up initiatives and debate.  
*In order to collect the communities' memories and the legacy of a place, FCHs as living archives are platforms for communal debate and bridging communities.*
- 9 - FCHs are not replacing factories**  
Hubs are more intended as cultural spaces whose facilities are means for innovation, reskilling, citizens empowerment and conviviality. They create new narratives and new business models by promoting awareness.

For a complete overview of the 10 principles, check chapter 4.2 of [D3.1](#).

**Figure 6 - Principles related to the key concept Heritage**  
Extract from the Open Diary

The Pilots’ Action Plan ([Wippoo, M.et al, 2021](#)) is a document drafted by the Pilots themselves, from which the most urgent challenges related to each theme emerged. A table was created for each session, to offer a clear overview of those challenges shared by different Pilots. This helped identify the most relevant questions addressed to the session’s guest speaker(s).

The Pilots' main challenges									
Here is a table that summarises the pilots' main challenges concerning governance and Heritage..					The data have been extracted from the pilots' action plan in <a href="#">D4.1</a> but you have the freedom to edit the table according to your needs and objectives.				
	Amsterdam	Barcelona	Blönduós	Copenhagen	Geneva	Milan	Paris	Tallinn	Zagreb
Using history & heritage as a roadmap for innovation		x				x	x	x	x
Reinventing traditional jobs to trigger innovative practices and spaces	x			x			x		
Integrating traditional craftsmanship into modern making communities	x		x		x	x	x		
Building the right narrative to guide small craftsmen towards innovative practices					x	x			
Repurposing spaces for cultural, social and productive activities		x						x	x
Intermediating among stakeholders	x	x	x	x					

**Figure 7 - Pilots' main challenges related to Heritage**

*Extract From the Open Diary*

After combining these two elements (the principles and the Pilots' main challenges), the team invited relevant guest speakers and came up with ad-hoc questions to moderate the conversation. One single guest was invited for the first session, whereas for the following ones a panel with more speakers was set up. This evolution reflected the iterative nature of the process: after every session, the task's partners would meet to share feedback and impressions to improve the structure and the content of the following appointments. Ultimately, the team agreed on opting for a panel talk structure to facilitate a more organic conversation between guests, Pilots and moderators.

In order to gather all above-mentioned material in one place and to structure the task's sessions, the team created the **Open Diary, an online document shared among Pilots and partners** as an accessible repository of the sessions' outcomes. Besides gathering the relevant already-existing material for each session (principles and Pilots' challenges), the Open Diary was used to structure the conversation with the guest speakers and the Pilots, providing the guests' introduction, the main questions addressed to them and a space for the Pilots to raise additional questions. The speakers' presentations and interactions with the Pilots produced an important batch of knowledge, which was stored in the Open Diary in the form of useful tools, actionable and inspirations for the future FCHs. The extracted outcomes provide concrete examples and good practises derived from the guests' experiences. Most importantly, the outcomes of each session gave the Pilots some answers and indications to their most pressing challenges. The following tables summarise the main features and outcomes of all three sessions organised during the task.

**Session 1 - 16/06/2021**

Theme	Social Inclusion
Guest	Vassilis Chalarampidis - Bios-Romantso (Athens, Greece)
Objectives	<ul style="list-style-type: none"> <li>- <i>How to adopt a governance model that considers the neighbourhood and its citizens.</i></li> <li>- <i>How to reach a diverse group of audience.</i></li> <li>- <i>How to gain the municipality's attention.</i></li> <li>- <i>Presenting Bios-Romantso's remarkable projects.</i></li> </ul>

**Table 1 - Session 1**

Vassilis Charalampidis, co-founder and director of Bios-Romantso, told the story of how the first creative hub of Greece came to be, in a particularly challenging neighbourhood of Athens. Social inclusion was on top of the hub's priorities since its origins, to the point that now Bios-Romantso functions as a hub, cultural and social centre and organises and hosts a variety of events on a daily basis. The intense cultural programming has connected the city's cultures and minorities with the hub and Bios-Romantso has played an important part in revitalising this formerly neglected neighbourhood of Athens.

The task of addressing social inclusion in the different pilots of the project was challenged by the fact that each city is in a unique and peculiar context, where local stakeholders, communities and situations vary ([Wippoo, M.et al, 2021](#)). Therefore, this first session was not intended to provide a universal guide on social inclusion, but rather an opportunity to present good practises and a contribution to the broader conversation on the theme. In particular, by showcasing BIOS-Romantso's inclusive strategies, it correlated with the main points of the CENTRINNO Network, one of the project's main actions. BIOS-Romantso's highly social twist, with its threefold approach and the incorporation of social organisations, represent an innovative means of collaboration with other social actors, and a way to a participatory and collaborative decision-making process. This case also offered an inspiring example of how to strengthen the network with local and global actors.

**Main tools extracted from session 1:**

Tools for an inclusive hub	Description
<b>The threefold approach</b>	<p>To be sustainable and impactful over time, a hub can consider a threefold approach:</p> <ol style="list-style-type: none"> <li>1. <b>Creative and Productive Hub - INTROVERT</b> By providing space for creatives and manufacturers, a hub must dedicate attention to the internal dynamics of the workspace. Internal efforts should provide a safe space for work, experimentation and innovation.</li> <li>2. <b>Cultural Centre - EXTROVERT</b> Cultural activities allow an interaction with the external environment. In doing so, a hub can become a lighthouse for the area, making it livelier and attracting some visitors.</li> </ol>





3. **Social Centre - PEOPLE CENTRIC**  
Communities need a place for common functions. A hub can integrate local with social activities and cultural events that accommodate the people's needs.

This approach can shape the hub's mission and vision, with a direct impact on its goals, business and governance model.

### Integrating social organisations

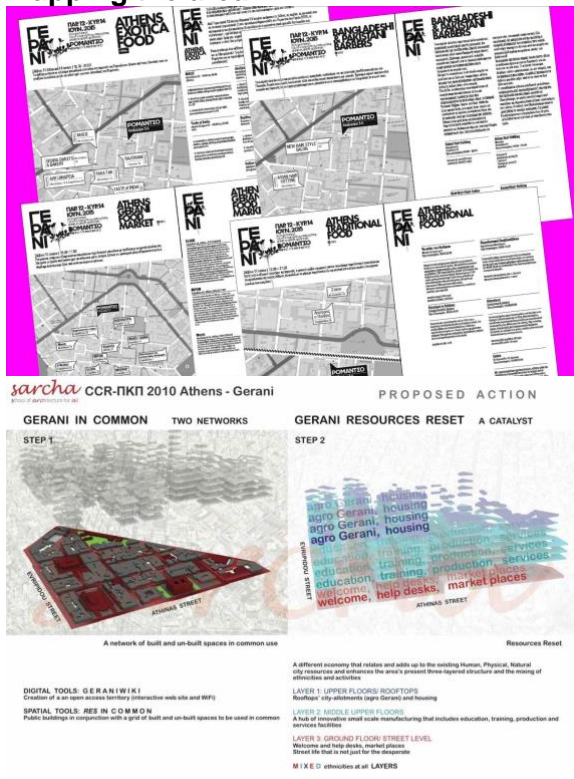


The integration of a **socially engaged partner** into your hub's community can contribute to your vision of creating an inclusive place.

**Example:**

Romatso opened its doors to [Generation 2.0](#), a non-profit organisation that operates for the empowerment of disadvantaged communities like immigrants and asylum-seekers. Generation 2.0 became part of the Romantso community by keeping its helpdesk office in the building. Romantso and Generation 2.0 joined their efforts on different occasions, organising cultural events involving local minorities, or setting up a desk for visa applications addressed to immigrants.

### Mapping the area



A series of active interventions will help your hub understand how the neighbourhood functions and what communities are there.

**Step 1: Explore**

Getting to know the neighbourhood, exploring it in person, getting to know the people and going to local businesses. This will allow you to gain the locals' trust and to identify the main challenges of the area.

**Step 2: Take Actions**

Organising impactful actions in the neighbourhood, aimed at finding solutions to local challenges. Romantso took the following actions:

- cleaned the public spaces
- installed new public lighting
- organised meetings among local neighbours
- painted public facades with the help of local community
- reintroduced to the media the identity of the old neighbourhood

Taking actions that engage with the local community help prove your hub's social investment with tangible results.

**Step 3: Research**

Undertaking an official research project with appropriate methodologies can produce a reliable report that depicts the complexities of the whole neighbourhood.

This important resource is useful not only for internal analysis, but also as a valid tool for conversation and negotiation with local authorities and/or institutions.

**Step 4: Connect**

For the initiative "Athens Exotica", Romantso produced a series of maps tracking down the most characteristic shops of Gerani, ranging from restaurants to hairdressers. This initiative brought more people to the area and new

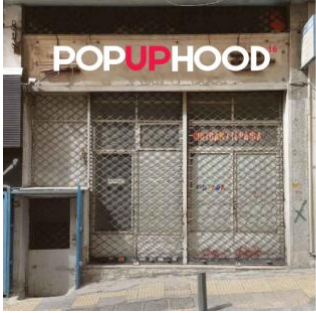

	<p>customers to the stores, which would have otherwise remained uncharted.</p>
<p><b>Distributed presence</b></p>  <p><b>Reviving a Neighborhood</b>      blueprint, test actions and monitoring the impact over 5 years (2016-2018)      on reviving a forgotten central neighborhood of Athens (GERANI neighborhood)      FOOD      DESIGN      FITNESS      PARTIES      SCREENINGS      TALKS      MARKETS      FASHION EVENTS      MUSIC EVENTS      TOURS      EXHIBITIONS      PHOTOGRAPHY</p>	<p>A hub can achieve a distributed presence in a neighbourhood by means of clustering different venues in the same area. When this is not feasible, expanding a hub's activities beyond the borders of its venue can be as effective.</p> <ul style="list-style-type: none"> <li>- <b>Collaborate with local stakeholders</b> (business owners, other venues and institutions)</li> <li>- <b>Distributed actions</b></li> </ul> <p><b>Example:</b>      Romantso gave birth to its first distributed festival: PopUpHood. In an attempt to revive the neighbourhood, creatives, artists and entrepreneurs were asked to move their activity temporarily into an inactive building in the city centre. These temporary interventions give more visibility to existing businesses and revitalise forgotten areas of the city.</p>
<p><b>Modular space</b></p> 	<p><b>The physical space of an inclusive hub is versatile, flexible and multipurpose.</b>      The available space can be transformed depending on the activity that it is hosting. The adaptability of a space corresponds to the wide range of activities and audiences promoted by the hub.</p> <p><b>Example:</b>      Bios-Romantso has designed Latraac, a skate-bowl and a social garden with a hybrid function: skate park during the day, concert and performance stage during the evenings.</p>

Table 2 - Extracted tools 1

**Session 2 - 25/08/2021**

Theme	Vocational Training
<b>Guests</b>	Indira von Oven - Hout- en Meubileringscollege (HMC) Paolo Montemurro - Materahub Christophe Dunand - Réalise
<b>Objectives</b>	<ul style="list-style-type: none"> <li>- <i>Identifying innovative educational models</i></li> <li>- <i>Acknowledging the impact of vocational training on the local socio-economic ecosystem</i></li> <li>- <i>Identifying the key stakeholders for a vocational training centre</i></li> </ul>

**Table 3 - Session 2**

In the second session, three guest speakers composed a very dynamic panel: Indira von Oven, project coordinator of a post-secondary vocational college based in the Netherlands; Paolo Montemurro, co-founder and director of Materahub, an organisation based in the south of Italy that manages international pilot projects for innovation, inclusion and entrepreneurship; Christophe Dunand, advisor of Réalise, a Geneva-based association that uses vocational training for professional reinsertion and placement. Together, the three guests explained how their different organisations approach the challenges raised by the thematic session. Everyone’s input contributed to the drafting of a comprehensive guide to face these challenges.

The CENTRINNO School aims at spreading 21st century skills suited to the 21st century economy ([Wippoo, M.et al, 2021](#)). Keeping this in mind, the second session focused on the project’s main aspirations regarding vocational training: filling the gap between learning and the socioeconomic milieu of a city, and between formal and informal training (Wippoo et al, 2021). To do so, the session’s panel gathered experts that reflect the multidimensional nature of the theme, covering all of the CENTRINNO School axes: vocational training (HMC), professional reintegration (Réalise) and professional facilitation (Materahub).

**Main tools extracted from session 2:**

Tools for innovative Vocational Training	Description
<p><b>Harmonising employability with innovation</b></p> <p>One of the main challenges that vocational training centres face is finding the right balance between providing students with employable skills as well as introducing them to new innovative practises.</p> <p>How can vocational training centres find a common ground between these two poles?</p>	<ul style="list-style-type: none"> <li>● <b>Listen to the market’s needs</b> Identify the demands of the labour market and design your training programs accordingly. Réalise coordinates specialised courses that guide job seekers through their training program directly towards the job placement. HMC has come up with a specialised training program (focused on installing kitchen appliances) after spotting the relative demand in the local market.</li> <li>● <b>Listen to the students’ needs</b> The job market is ever-evolving; therefore it is crucial to train agile employment seekers who can keep up with its changes. It is therefore important to shape a training program on the students’ needs and aspirations too, in order to provide them with added competitive competences.</li> <li>● <b>Use professional coaches</b> Réalise, HMC and Materahub invested in</li> </ul>



	<p>professional coaches who guide students throughout their training process. These figures can be mutated from local companies and are aware of both the markets and the students' needs.</p> <ul style="list-style-type: none"> <li>● <b>Invest in entrepreneurial skills</b> Students can be encouraged to be proactive in the job placement, through the training of entrepreneurial competences. Entrepreneurship can be a key skill to enable job seekers to fit the market, but also to identify new professional opportunities.</li> <li>● <b>Use culture as an element for innovation</b> The project "<a href="#">Master the Act</a>", coordinated by Materahub, launched an initiative where theatre professionals activate key skills for employability for disadvantaged communities. This example shows how cultural and creative practises can be impactful in capacity building initiatives.</li> </ul>
<p><b>Cooperating with local industries</b>  Oftentimes, we can find a big gap between training centres and the job market out there. How can vocational training centres reduce this gap and nurture cooperation with the local industries?</p>	<ul style="list-style-type: none"> <li>● <b>Co-design programs with local companies</b> In order to facilitate the dialogue among training centres and the local market, companies can be involved in the co-design of specific training programs. Not only companies' representatives can have an active role in the educational process (for instance as coaches or trainers) but they can also help find the middle ground between the market's demands and the students' aspirations.</li> <li>● <b>Collaborate with unemployment agencies</b> Whether a hub is specialised in job reinsertion or youngsters' training, working with local unemployment agencies can always be a successful strategy to grant students a job placement.</li> <li>● <b>Facilitate the clustering of new professionals</b> HMC has been training students in creative craftsmanship, and its alumni have settled their new business in the same neighbourhood of their former school. This cluster of professionals represents a familiar actor in the local ecosystem, which can be used as a springboard for other students and for the school itself to access the broader labour market.</li> </ul>
<p><b>Granting educational freedom</b> Non-traditional training centres have the freedom to design more innovative programs, but this comes with a higher degree of responsibilities. How can training centres maintain their freedom in a sustainable way and address a broader community?</p>	<ul style="list-style-type: none"> <li>● <b>New models of educational institutions</b> Informal education, fab labs, creative hubs and ultimately Fab City Hubs represent unique platforms for a new model of educational institutions. These realities have in fact the freedom to depart from those fixed programs that traditional VET schools have to follow. These centres' independence gives them the liberty to adopt different methods and approaches, like in the case of the <a href="#">Learning Labs</a> within the Creative Flip project. In this case, creative hubs and educational institutions teamed up to devise new learning methodologies.</li> <li>● <b>Re-evaluate certifications</b> Traditional and certified training provide students with recognised certifications. However, a lack of certifications in non-formal training does not correspond to lower standards. On the contrary, an informal context may provide those complementar teachings necessary to form the skillful professionals of our time.</li> <li>● <b>Provide accessible programs</b> In order to keep your training programs grounded in the socio-economic reality of your city's ecosystem, it is crucial to provide courses that are accessible to adults as well as young people, including disadvantaged categories. Diversifying your program's offer would enable those job seekers who need an immediate placement in the market, as well as those who have the means to</li> </ul>

	<p>invest in more specialised and innovative competences.</p> <ul style="list-style-type: none"> <li>● <b>Cultivate long term partnerships</b> Partnerships are a key aspect for a hub's long-term sustainability. Nurturing a constant dialogue with local companies, policymakers and community facilitates a more diversified source of support, such as peer recognition, funding and favourable policies.</li> </ul>
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**Table 4 - Extracted tools 2**

### Session 3 - 08/09/2021

<b>Theme</b>	<b>Heritage</b>
<b>Guests</b>	Danielle Kuijten - Imagine IC Ruba Saleh - C-ship Project & CLIC Project
<b>Objectives</b>	<i>Approaching the theme of heritage from a twofold perspective: social and economic.</i>

**Table 5 - Session 3**

The last session invited two guests: Danielle Kuijten, acting director and co-curator of Imagine IC, an Amsterdam-based initiative specialised in participatory heritage work; and Ruba Saleh, researcher and coordinator of the C-Ship Project, a professional training program for cultural entrepreneurs, and contributor of the CLIC Project, a trans-disciplinary research project that aims at identifying evaluation tools to test, implement, validate and share innovative “circular” financing, business and governance models for systemic adaptive reuse of cultural heritage and landscape. By presenting the outcomes of their main activities, the guest speakers identified a series of action points for participatory heritage work and a circular business model.

For the last appointment of the series, the two guest speakers were selected to build upon the ongoing process of the Living Archive, an infrastructure created with and for CENTRINNO's Pilots towards the creation of FCHs. One of the main activities linked to the Living Archive was the Emotion Networking training program, of which Imagine IC was the main facilitator, and Danielle Kuijten's contribution offered a more comprehensive understanding of the implementation of this method on a city level. The second guest Ruba Saleh added a more practical approach to heritage, offering a further-reaching perspective, a possible vision for the future. With this combination of expertise, the panel tried to involve different stakeholders and to harmonise heritage as a matter of the past, present and future of the Pilot cities ([Wippoo, M.et al, 2021](#)).

**Main tools extracted from session 3:**

Tools for Heritage Centres	Description
<b>Define Heritage</b>	Heritage can be seen as a <b>collective cultural phenomenon</b> where communities give meaning to specific <b>items of heritage</b> . These items can be <b>tangible</b> or <b>intangible</b> : buildings, languages, repertoire, rituals, smells...
<b>Facilitate Conversations</b>	Heritage is a <b>dynamic process</b> , where items can hold and lose their heritage label. Imagine IC brings together communities and encourages them to keep the <b>listening mode on</b> . Imagine IC moderates <b>conversations</b> among stakeholders, who discuss, accept or reject heritage items.
<b>Bottom-up Agenda</b>	Imagine IC does not create its own agenda. Based on the idea of heritage democracy, heritage is conceived as a <b>bottom-up initiative</b> . By giving voice to the <b>under-streams of citizens</b> , the most urgent themes come to the surface. Heritage should <b>not</b> be an irreversible design of an institution.
<b>Hybrid Spaces</b>	Imagine IC operates at the intersection of a museum, an archive, a library and a meeting centre. This hybrid nature enables Imagine IC to perform heritage-making practises in all their complexities. Here, <b>conservation, conversation and design</b> go hand in hand.
<b>Expressing Identities</b>	The projects of Imagine IC are finalised to give voice to local citizens and to let them <b>negotiate</b> and <b>create</b> their own spaces. The more diverse the environment, the more urgent it is for communities to express and preserve their <b>identities</b> . People come together around practises (religion, nightlife, work etc) that require <b>dedicated spaces</b> .
<b>Mediation between Institutions and Communities</b>	Imagine IC is an institution with an (inter)national resonance, therefore it maintains <b>partnerships</b> with local administrations, cultural institutions, educational institutions and funds. Imagine IC acts as a <b>middle person</b> between its partners and the local communities.

**Table 6 - Extracted tools 3**

The Circular Business Model for Cultural Heritage Adaptive Reuse addressing cultural, social and environmental values in an integrated way.

**CLIC** ♦ The circular business model for CH adaptive reuse

SITE / BUILDING:							
TEAM:							
DATE:							
CONTEXT	PROCESS			VALUE PROPOSITIONS	PEOPLE		EXTERNAL ENVIRONMENT
HUL MAPPING	RESOURCES	SOLUTION	CHANNELS	VALUE CO-PRESERVATION & CO-CREATION	END USERS & OTHER STAKEHOLDERS	NEEDS	PESTEL ANALYSIS EXTERNAL FACTORS
SPATIAL INTEGRATION	ADAPTIVE REUSE		PARTNERSHIPS		GOVERNANCE		
OUTCOMES							
COSTS (-)		CONTRIBUTION TO THE SDGS			BENEFITS (+)		

Ost & Saleh 2019: 15 business model building blocks



**Figure 8 - Circular BM for creative Heritage adaptive reuse**

## 4. THE FAB CITY HUB TOOLKIT APPROACH

This report describes the first iteration of the FCH Toolkit, hence the core of this document is the approach that was defined for the Toolkit. While the contents of the Toolkit - its tools, roadmaps and format - will change and evolve along the next months of CENTRINNO, the framework described in this chapter constitutes a consolidated approach that will guide these evolutions.

The first months of work on the establishment of the Toolkit gravitated around the following challenge: how to cover the multitude of aspects and the diversity of situations in which FCHs initiatives can be deployed, while still maintaining a certain structure for an overarching framework able to embrace this diversity? Or, in short: how to combine structure with flexibility?

On one hand, the mentioned diversity is by default embedded in CENTRINNO's design: the pilots themselves cover a wide range of situations in regard to city scales, geopolitical context, typology of stakeholders involved (some of them have the Municipality actively involved as a partner, others are completely bottom-up initiatives) and development stage. On the other hand, the Creative and Productive Hubs Journal ([Amato, D. et al, 2021](#)) highlights the unique character of each one of those hubs, this lack of standardisation being a recipe for resilience<sup>31</sup>.

Furthermore, as described in chapter 2.1 of the abovementioned Journal ([Amato, D. et al, 2021](#)), the FCH Toolkit aims to constitute one of the key elements of the legacy that goes beyond CENTRINNO by creating a blueprint that will allow the network of FCHs to grow and expand beyond the 9 Pilot cities, with new Hubs in Europe and worldwide.

In this respect, apart from the diversity described above, which is intrinsic in CENTRINNO and rooted into hubs' DNA, there is a need for the FCH Toolkit to also cover a series of unplanned cases which will be revealed after the end of the project.

Therefore, a flexible approach is necessary in order to answer Pilots' specific needs arising from their context but also to allow the Toolkit to evolve according to future cases. In parallel, it has also been detected that, within a given toolkit, the same tool can be useful in different situations, tackling different challenges that can appear at different times and different scales.

### A toolkit based on different Ways of Navigating

The previous paragraph provides a list of manifold characteristics the Toolkit will need to comply with, from which the expression 'ways of navigating'<sup>32</sup> arose. This formulation is used to express the vision of a toolkit as a sea of tools through which a user can navigate based on their own route, as opposed to a linear set of tools to be used sequentially following a standardised route.

Building a toolkit based on different 'ways of navigating' means to operate within a conceptual framework that emphasises the distinction between the tools themselves and the context in which they are used - in terms of time (when) and space (where) they are used.

In fact, this approach distinguishes the mission of building the Toolkit in three blocks of work:

1. **The tools**, including their selection and description
2. **The Ways of Navigating**, meaning the different entry points to access those tools in a meaningful and contextualised way. In Section 4.1 we will describe the two main proposed Ways of Navigating: the 5 key concepts of the CENTRINNO approach (previously described in D1.1 CENTRINNO Whitepaper and D1.2 CENTRINNO Framework) and the FCH Roadmap (developed specifically in this report)

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<sup>31</sup> Referred to principle 3 of the 10 principles for Fab City Hubs ([Amato, D. et al. pag.69, 2021](#)).

<sup>32</sup> The expression has been inspired by the BBC Television Series of 1972 'Ways of Seeing' by writer John Berger and producer Mike Dibb, then adapted into a book of the same name. This work has critically changed the way we look at art, as products of the time and place in which they were created.

3. **The tagging system**, also referred to as **Tailor-made Tagging System** is a specific tagging system developed for the Toolkit, which allows to connect points 1 and 2 of this list, by associating to the tools a set of tags that refer to the Ways of Navigating.

The focus of this report (as Alpha iteration of the Toolkit) is on the introduction and the description of the Ways of Navigating approach (point 2) and the tagging system developed (point 3). A first selection of relevant tools (point 1) for the Toolkit is provided in the Annex section of this report, while the work on the tools will substantially evolve and grow in the next iterations.

#### 4.1 “Designed as a platform, written in the form of a report”

Given the specifications developed and described above, the FCH Toolkit is configured as a non-linear set of contents, the access to which is facilitated through different entry points or starting points. This nonlinearity grants every user a customised ‘way of navigating’. Under a digital platform such as an app or a website, the FCH Toolkit wants to facilitate a certain degree of interaction between the content and its users, allowing them to choose where to start from and how to navigate through. In that sense the Toolkit will be thought of and designed taking into consideration that its final format will be an interactive platform.

Furthermore, the interactivity and platform-oriented approach will also allow the Toolkit to evolve in time, in the same way a live app, website or blog do. The evolution as a ‘living tool’<sup>33</sup> will be coordinated by Volumes and nourished by all the FCHs of the network, and more broadly fuelled and contextualised by the FCGI through the Fab City Foundation. A broader coordination between CENTRINNO efforts and other initiatives developed in relation to the FCGI is already ongoing. Specifically, CENTRINNO teams have started working together with Interfacer<sup>34</sup>, EU project developed in Hamburg, which focuses on the development of the so-called Fab City Os, the digital infrastructure for the Fab Cities and Regions.

During the first conversation about potential alignments and coordination between the two projects, Volumes realised that the FCH Toolkit contents (developed within CENTRINNO) are able to feed the Fab City Os and to be embedded in this digital platform<sup>35</sup> (developed in Interfacer).

Despite there being a need to check, in the next months, the feasibility of this hypothesis and its compatibility with the specific agendas of both projects, CENTRINNO teams have decided that the focus of the Toolkit should be the development of its contents (meaning the tools, the Ways of Navigating and the tagging systems), instead of the digital platform, to avoid overlaps between two EU funded projects and to maximise impacts.

That’s when the slogan “think it as a platform, write it as deliverable” came to be, in order to emphasise the fact that while the format of this report is written and linear, the vision of the Toolkit is developed having in mind a final format such as interactive, digital platform.

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<sup>33</sup> The expression refers to chapter 2.3 of this paragraph

<sup>34</sup> <https://www.fabcity.hamburg/fab-city-os-projekt-interfacer/>

<sup>35</sup> The technical definition of Fab City Os is “federated digital network”; platform is used for a more accessible language

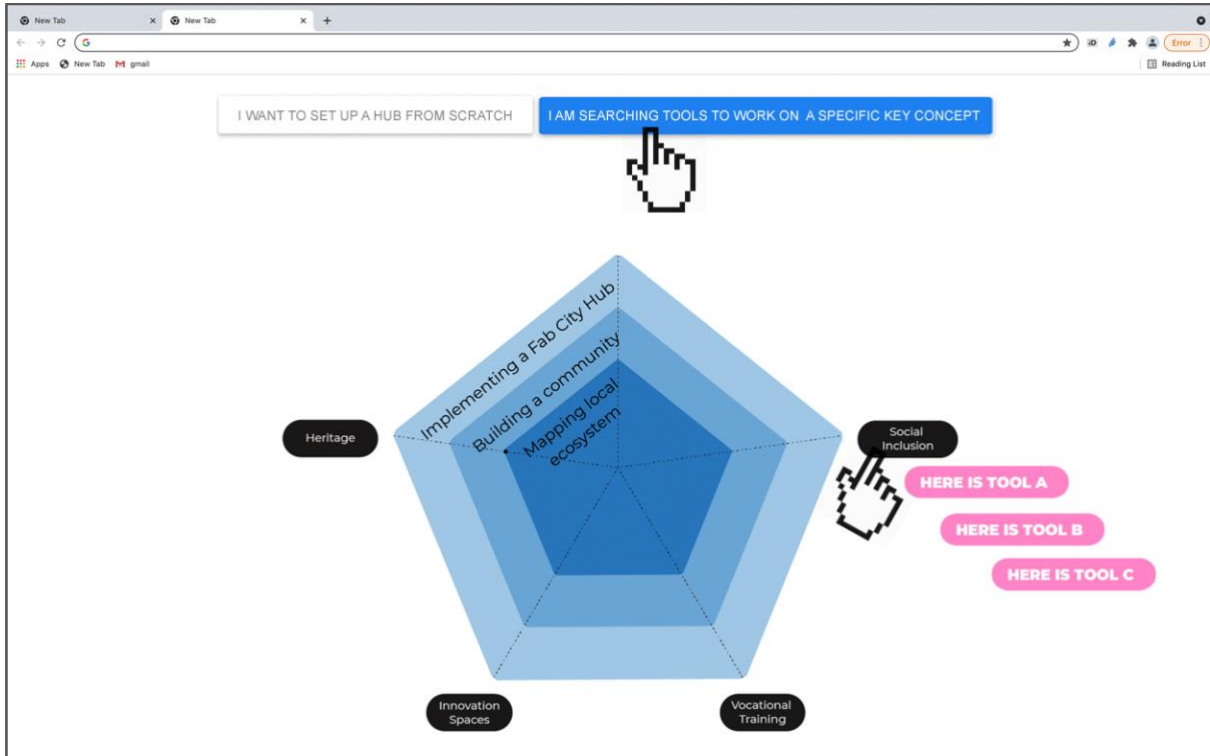


**Figure 9 - Conceptual draft of the FCH Toolkit platform**

Despite the fact that the platform itself will not be developed within CENTRINNO, to think of the Toolkit as a platform means to develop its contents having in mind how the platform could work, especially in terms of user experience.

The image above shows what the first screen of the platform may look like, displaying two main options or entry points to the users, corresponding to the two main Ways of Navigating the Toolkit:

1. **“I am looking for tools to work on a specific key concept”** This way of navigating specifically targets stakeholders of the Pilot cities with an already initiated process to set-up an FCH. For this way of navigating, tools are proposed for each of the 5 key concepts of the CENTRINNO approach, so every Pilot can navigate and search for tools to tackle specific challenges to each of the 5 key concepts, depending on its needs.



**Figure 10 - Example of tools for way of navigating number 1**

2. **“I want to set up a hub from scratch”** This way of navigating is dedicated to citizens, entrepreneurs and local communities willing to set up a FCH in their local context while specifically targeting those audiences beyond the lifespan of the CENTRINNO project. Unlike the previous way of navigating, which is developed based on the 5 key concepts, this way of navigating is based on the FCH Roadmap, a new element of CENTRINNO introduced with this document. The next chapter is dedicated to a detailed description of the roadmap.



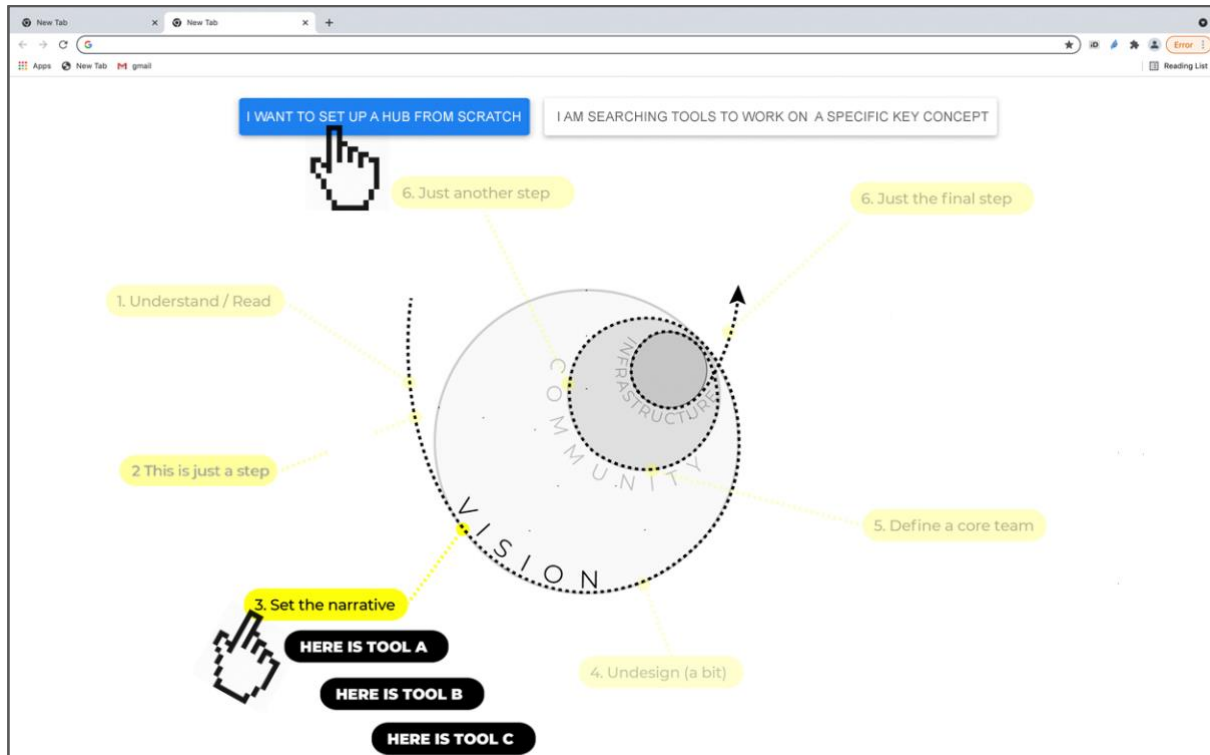


Figure 11 - Example of tools for way of navigating number 2

## 4.2 The Fab City Hub Roadmap

The FCH Roadmap is a strategic plan that outlines a proposed step-by-step journey to be followed in order to set up a FCH that responds to the 10 principles for Fab City Hubs described in D3.1 ([Amato, D. et al, 2021](#)).

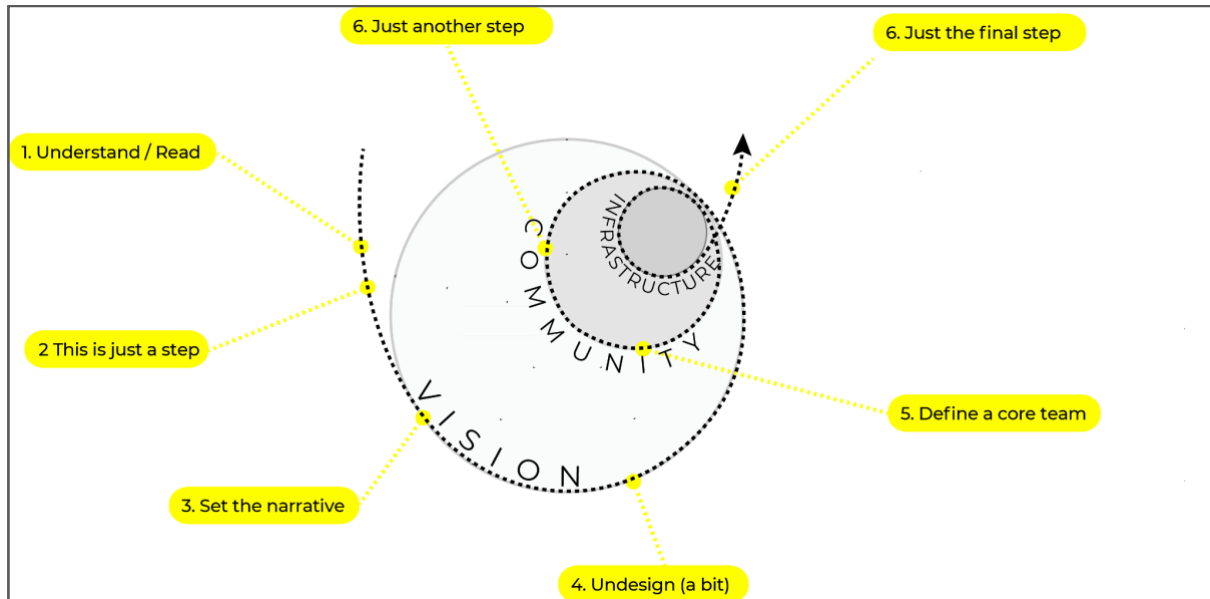
The vision behind this Roadmap is inspired by the way roadmaps are used in web product development to initiate the process with a clear shared visualisation of future steps in order to achieve those goals. This does not mean that the FCH roadmap needs to capture all the details, the features and the challenges that will arise during the process. Rather, the FCH Roadmap is used to orient pilots and codesign FCHs with them.

Specifically, the FCH Roadmap has been and will be used to:

**Orient Pilots** in their activity of setting up FCHs as the final goal of CENTRINNO, by providing them with a strategic document to help them articulate the goal with the right actions and plans to get there.

**Co-design Fab City Hubs** The Roadmap is also a communication tool that serves as a starting ground to kick-off the codesign of what a FCH is and can be. Developed in accordance with the 10 principles, the Roadmap is used to facilitate a collaborative definition of Fab City Hubs, blending the theory developed from previous resources and the research conducted within WP3 with the practice deployed in pilot cities.

**Co-design the Roadmap** Complementing the previous point, the Roadmap needs to be codesigned with the Pilots. In this chapter a first definition of steps of the roadmap will be given. Based on this draft, codesign activities with Pilots will allow challenging those steps, determining if some are missing or not required, and setting the linear order of those in the final version of the Roadmap (which will be given in the last iteration of the Toolkit).



**Figure 12 - Structure of the Fab City Hub Roadmap**

The yellow frames are the steps of the roadmap, given as examples. The precise steps of the first version of the roadmap are described below, while their order is not fixed yet.

### Methodology: How the Roadmap is being designed

This first iteration focused on **designing the steps of the FCH Roadmap**. The definitions and their order will be co-designed through different activities with the Pilots during future actions; the following chapter will describe the first dedicated workshop activity.

The steps are presented here in a preliminary order, which might be largely modified in the next iterations of the Toolkit

To design the list of steps and their description, the adopted methodology has implemented an approach based on 3 main sets of pre-existing references. Those sets are listed below in order of impact: the first one had a stronger influence on the steps' design, the third had a smaller one.

1. **The 10 principles for Fab City Hubs**, presented in the D3.1 Creative and Productive Hubs Journal. This has been the main reference from which the steps have been extracted.
2. **The Creative HubKit**<sup>36</sup>, outlines a roadmap for setting up creative hubs with the following steps: defining the vision, connecting the network, designing the opportunity, building it to last, communicating strengths and impacts, reviewing and improving, sustaining and scaling. These resources have been considered as a central piece for the work on the FCH Roadmap because of their specificity regarding the challenge of setting up a hub.
3. **Other selected toolkits**, especially relevant to inspire a journey-based approach. Included in this set are the Citizen Sensing Toolkit concerning the step-by-step guide (namely, *Scoping, Community building, Planning, Sensing, Awareness, Action, Reflect, Legacy*) and the REFLOW Collaborative Governance Toolkit referring to its framework (*Understand, Define, Make, Release*).

The first action was to extract a series of actionable and operational steps from the 10 principles (what a FCH is), and to adapt them to the challenge of how to set up the FCH.

<sup>36</sup> [http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf)

Where the steps have a direct correlation to one or several principles, this correlation is mentioned in the section '*Principles of reference*'.

This first list of operational steps was then compared, merged, and articulated with the resources of items 2 and 3 of the above lists, resulting in a series of 12 steps for the FCH Roadmap presented below.

In order to be more concrete, the steps are formulated in a first-person point of view, from the perspective of a hub leader.

### **1. MAP THE ECOSYSTEM**

To set up my local FCH, I need to understand the surrounding ecosystems and find possible missing gaps that will affect or will be affected by the hub. Focusing on mapping what interests you most. As a starting point I could map spaces, key actors and existing projects to evaluate the actual situation, avoid replication and sketch out possible synergies with what already exists.

*Principles of reference: 1,2*

### **2. ESTABLISH KEY PARTNERSHIPS**

External collaboration and partnership are fundamental to increase opportunities, local anchoring and thus the resilience of my hub. They are essential to build trust and shared value among partners. I could start with two main organisations, a private and a public one, and define the vision of my hub in relation to them.

*Principles of reference: 4*

### **3. WRITE A PITCH OF MY FAB CITY HUB**

Am I able to present my idea of a FCH in a 10-minute speech? Is this speech able to grab the interests of a diversified public such as local communities, the public and the private sector as well?

### **4. "RESIST THE URGE TO ORGANISE EVERYTHING"**

Creativity and disruptive ideas often happen in those transition spaces at the edge of order and disorder. I should work effectively and foster creativity, maintaining a constant balance between order and disorder, planned and not planned tasks. I should be prepared for the unforeseen.

*Principles of reference: 3*

### **5. ORGANISE A SIGNIFICANT EVENT FOR MY HUB**

Events are a testbed for my capacity to pass from thinking to action. It means that I have to practically transform into concrete actions what I have theorised and discussed so far. I have to deal with limited time, resources and skills and focus on my short-term goals aligned with my long-term aspirations, all condensed in one single moment. I need to answer questions such as: for who, when how and for what purposes.

*Principles of reference: 5*

### **6. DEFINE MY HUB'S OPERATIONAL TEAM**

Understanding who is on board and what the roles and responsibilities of each member are, is vital, as well as understanding internal knowledge, skills and needs held by your

team members; “this will help you avoid miscommunication and will also help you identify expertise you might lack within your team”<sup>37</sup>.

## **7. BUILD AND GROW MY COMMUNITY**

It is important to get in contact, understand and build trust with my surrounding communities. I could start with 3 steps: organising, building and outreaching my communities. In this way I will create meaningful engagements with my networks, and I will be able to amplify my impact and be long-lasting.

*Principles of reference: 6,7*

## **8. DOCUMENT TO EMPOWER**

Documenting my activities, significant events, progression and results is a fundamental practice to create the right collaborative conditions and distributed awareness about the state of the project among different actors. This practice will also build a common knowledge and expertise that can then be shared with my network to foster further collaborations.

*Principles of reference: 7*

## **9. DECIDE MY HUB’S TYPOLOGY**

Is my hub a space centralised in one venue? Could it be distributed in several locations across my city? Should I have to rent those spaces or establish partnerships with key actors that manage vacant or temporary spaces? Could my hub be a digital platform combined with some events taking place in specific locations?

## **10. DESIGN MY OWN BUSINESS MODEL**

Business models should allow my hub to be sustainable in the long term. I should benchmark the offer and cost of my services, present a solid case for my hub and articulate the hub's financial status to be presented to potential investors, funders and partners. This will allow me to evaluate resources and capacity and thus foresee risks.

## **11. DEFINE PRODUCTION FACILITIES**

The point is not to have my hub replacing factories. Machines and services that I will provide will be calibrated according to my community's needs and my internal resources and capacity. Hub's facilities should serve to foster innovation, reskilling, training, citizen empowerment, social connection and conviviality.

*Principles of reference: 9*

## **12. BLEND THE PHYSICAL WITH THE DIGITAL**

Physical and digital spaces are not antagonistic aspects of our environment.

On the contrary, they are intertwined and, by blending them together, I can maximise the performances of both, I will create strong human relations and I will humanise digital tools.

*Principles of reference: 10*

It can be observed in the figure above that the Roadmap and its steps have been designed according to the group of principles defined as Vision, Community and Infrastructure.

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<sup>37</sup> [http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf)

In that framework, steps 1 to 4 related to Vision, 5 to 8 to Community and 9 to 12 to Infrastructure.

While developing the roadmap stemming from those 3 areas, it has been hypothesised that, given the iterative and adaptive process of setting up and developing a FCH, it may be relevant to add to the Roadmap a 4th area called Reboot. The Reboot area would serve as a space for reflection and review on the process of the 12 steps, before entering again the Roadmap with a different focus and scale for the development of the hub. This Reboot may be further developed in the next iteration and added to the Roadmap if the upcoming evolution of the work with pilots will confirm its relevance.

### 4.3 The CENTRINNO Tailor-made Tagging Systems

The second way to navigate the FCH Toolkit platform will be by accessing tools and methods according to a specific **CENTRINNO Tailor-made Tagging System**.

As explained in the previous chapter, the idea to structure, both the platform and the collection of tools, through multiple Ways of Navigating stems from the ambition to cover the multitude of pathways FCHs will undertake, and, at the same time, to answer to a set of diversified needs Pilots and future organisations could encounter during their process. Having this in mind, Volumes worked on a Toolkit infrastructure that aims to be flexible and adaptable, as processes indeed are!

The CENTRINNO Tailor-made Tagging System aims to respond to those challenges (flexibility and adaptability) by using a shared tagging system that will drive the collection, organisation, and sharing of tools within the CENTRINNO project. Ultimately, beyond CENTRINNO, this tagging system will contribute to building a shared common language to navigate through this set of knowledge.

The CENTRINNO Tailor-made Tagging System embeds the assumptions that all Pilots could potentially need support on specific actions linked to specific concepts and objectives, and thus this system provides hands-on tools for these objectives.

On one side, the FCH Roadmap will serve to co-create a reasoned common path toward the setting up of local models of FCHs, on the other side the CENTRINNO Tailor-made Tagging System functions as an operational system to collect and to assess tools for specific steps along this process.

Indeed, the CENTRINNO Tailor-made Tagging System lays its foundation on the CENTRINNO Framework ([Muñoz Unceta, P. et al., 2021](#)). It takes at its core the 5 key concepts as the main lines of development of each Pilot Action Plan and as the foundational concepts of CENTRINNO.

For this first iteration of the FCH Toolkit, tools and other resources will be collected by analysing their capacity to tackle one or multiple key concepts. Thus, the Toolkit aims to build a collection of tools that could potentially answer the main challenges Pilots described in their Action Plan. Accordingly, the FCH Toolkit will evolve and adapt the collection of tools based on Pilots' needs as well as based on the expertise they will have developed along their Sprints. For these reasons, this deliverable dedicates an entire section (5.2) on Pilot advancements with a specific focus on FCH. This section will then be used to extract tools from Pilots' experiences or to detect their specific needs.

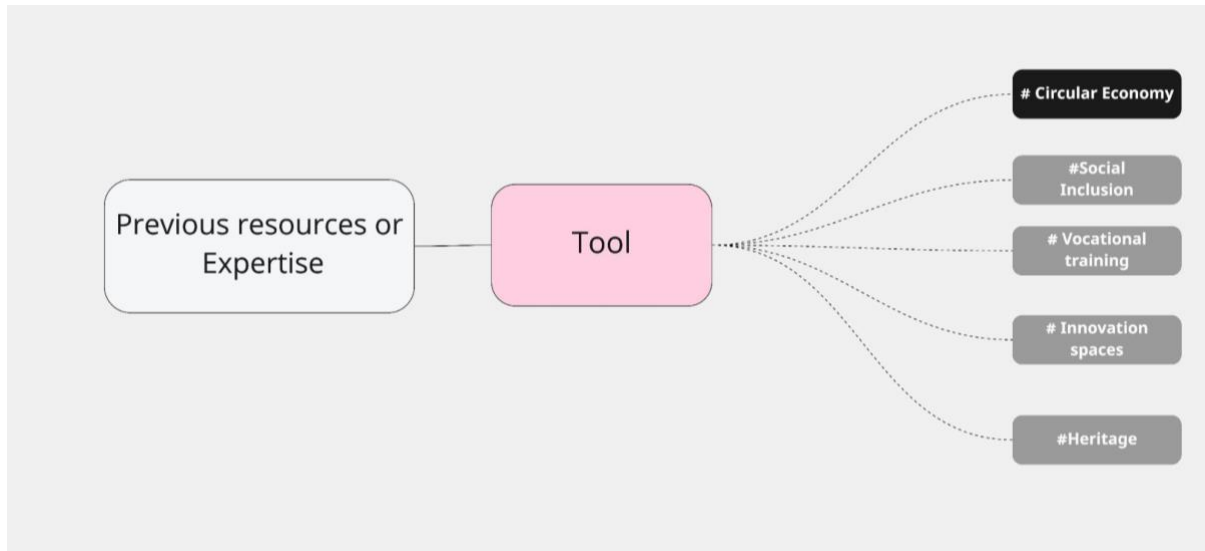
In later versions of the Toolkit, additional tags could be added to better detail the purpose of a tool. Some examples of additional tags could be:

- Tags to better frame the 5 key concepts
- Tags to identify specific stakeholders the tools aim to tackle

- Tags to identify specific working scales ([CENTRINNO Project, 2020](#)) the tools aim to tackle

Furthermore, other WPs and key concept owners are working with additional tagging systems that could potentially be embedded in the description of a tool.

The collection of tools for this first version has been coordinated by Volumes with a series of actions to extract and classify tools according to the 5 key concepts by analysing the resources and expertise available within the Consortium, following the diagram below.



**Figure 13 - Extraction of tool from previous resources**

*Partners have been asked to extract tools from previous resources and assign them of one of the tags related to the 5 key concepts*

A first important work was previously developed within WP1 with the redaction of the 'Initial Collection of Tools' reported in the Annex part of D1.2 CENTRINNO framework ([Muñoz Unceta, P. et al., 2021](#)).

Taking this selection of tools as a starting point, Volumes have solicited partners to extract tools they believe are more appropriate for Pilots based on their expertise, their role in the project and from their knowledge following one year of project development.

CENTRINNO WPs leaders and key concept owners were asked to select 2/3 tools, then to assign them a relevant tag linked to one (or more) of the 5 key concepts. All partners followed the same template (see Annex).

Due to the diversity of available resources, the coordination of these actions unfolded into 3 different approaches:

The first one was to select tools from those **previous resources** indicated in the GA. Those partners involved in the development of these **toolkits** were asked to analyse and choose the most relevant tools, according to the following table:

TYPE OF RESOURCE	PARTNER & ROLE	N° TOOLS & # Tag assigned
The Creative Hub Kit	ECHN (As 'owner' of the Hub Kit and partners in WP3)	1 tool (# Social Inclusion, VT, IS ) 2 tool (# Innovation Space) 3 tool (# Social Inclusion)
The Reflow Collaborative Governance Toolkit	IAAC (As contributor to the RCGT and as Social Inclusion key concept owner)	1 tool (# Circular Economy, SI) 2 tool (# Circular Economy, SI) 3 tool (# Circular Economy, SI, IS)
The Citizen Sensing Toolkit	IAAC (As contributor to the RCGT and as Social Inclusion key concept owner)	1 tool (# Innovation Space) 2 tool (# Innovation Space, VT) 3 tool (# Innovation Space, SI)
The CC-Navigator	WAAG (As 'owner' of the CC-Navigator and WP4 leader)	1 tool (#All 5 key concepts) 2 tool (#Social Inclusion, VT, H, IS, CE,) 3 tool (#Social Inclusion, VT, H, IS, CE,) 4 tool (#Social Inclusion) 5 tool (#Social Inclusion, VT, H)
The Civic Design Method	Volumes (As 'owner' of the civic Design Method and WP3 leader)	1 tool (#Social Inclusion, CE) 2 tool (#Social Inclusion, CE) 3 tool (#Social Inclusion, CE)

**Table 7 - Extracted tools from previous resources**

A second round of contribution has been extended to three more partners: **Metabolic**, **Onfait** and **AHK**, as key concept owners, respectively of Circular Economy, Vocational Training and Heritage. In this case, they were asked to select 3 tools/methods/frameworks from the activities developed with the Pilots and from other projects they were involved in, eventually.

It is worth noticing that the three partners are already developing and testing activities with Pilots by employing and adapting specific tools and methods. Some of the latter, such as Kumu<sup>38</sup> or the Emotional Network method, have been already used by Pilots and they will have specific dedicated resources within CENTRINNO, respectively the CENTRINNO Cartography and the Living Archive.

For example, within the activities developed by Metabolic for the CENTRINNO Cartography, Kumu has shown a lot of potential to enhance the implementation of specific typologies of innovative FCH, or to map key stakeholders to engage with for setting up the hub, and also as an analytical tool to explore circular opportunities in locally productive communities.

Moreover, the Amsterdam Pilot, which is looking for available distributed spaces in the northern district, could use Kumu as a supportive	<b>PARTNER &amp; ROLE</b>	<b>N° TOOLS &amp; # Tag assigned</b>
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<sup>38</sup> Kumu is an open-source filterable (geospatial) mapping platform.



<p>tool to map key stakeholders holding vacant spaces for rent and to connect with other actors, such as artists or makers, who are inversely looking for spaces to rent. <b>TYPE OF RESOURCE</b></p>		
<p>CENTRINNO School Programs <i>(potentially)</i><sup>39</sup></p>	<p>Onlfait (As leader in the development of the CENTRINNO School and Vocational Training key concept owner)</p>	<p>1 tool (#Vocational Training, #SI, #IS) 2 tool (#Vocational Training, #SI, #H) 3 tool (#Vocational Training, #SI, #IS)</p>
<p>The CENTRINNO Cartography <i>(potentially)</i><sup>40</sup></p>	<p>METABOLIC (As WP2 leader and Circular Economy concept owner)</p>	<p>1 tool (#Circular Economy) 2 tool (#Circular Economy, IS, VT) 3 tool (#Circular Economy)</p>
<p>The Living Archive <i>(potentially)</i><sup>41</sup></p>	<p>AHK (As leader in the development of the Living Archive and heritage key concept owner)</p>	<p>1 tool (#Heritage, #SI) 2 tool (#Heritage, #SI)</p>

**Table 8 - Extracted tools from CENTRINNO resources**

*Tables 1&2 provide an overview on the number of selected tools collected from CENTRINNO Partners and their assigned tags.*

**A third way** to collect appropriate tools, methods and inspirational case studies was the extraction of tools/set of actions from the thematic sessions organised by ECHN within T3.2 and extensively explained in [Chapter 3.4](#).

In this 3rd approach the case studies presented are already tagged with 3 out of 5 of the key concepts. ECHN organised a series of thematic sessions focusing on specific key concepts: **Social Inclusion, Vocational Training and Heritage**.

<sup>39</sup> The definition of the CENTRINNO School Program is an on-going work

<sup>40</sup> The definition of the CENTRINNO Cartography is an on-going work

<sup>41</sup> The definition of the CENTRINNO Living Archive is an on-going work

TYPE OF RESOURCE	PARTNER & ROLE	N° TOOLS
Thematic session on <b>Social Inclusion</b>	ECHN (As partners in WP3 and T3.2 leader)	tools / best practises (#social inclusion)
Thematic session on <b>Vocational Training</b>	ECHN (As partners in WP3 and T3.2 leader)	tools/ best practises (#vocational training)
Thematic session on <b>Heritage</b>	ECHN (As partners in WP3 and T3.2 leader)	tools/ best practises (#heritage)

**Table 9 - Extracted tools from Thematic Sessions**

*Tools/Best Practises collected during the Thematic Session organised during T3.2 by ECHN*

In the Annex part of this deliverable, the tools displayed in Table 1 and 2 are reported with a standardised template that will be further updated.

Within WP3, Volumes is planning to update and enrich this list of tools by monitoring activities within WPs as well as working in close collaboration with Pilots in order to facilitate feedback loops.

It is worth noticing that in this first year of the project the co-designing process of the Toolkit with Pilots has just started with the first CM workshop. This limited interaction with them is due to the fact that, so far, Pilots have been in a more action-oriented phase than a reflective one, and so it seemed premature to involve them in the collection of tools from their direct experience. Nevertheless, by observing the Dashboard and studying the D4.2 Collective Results Sprint 1 ([Wippoo M. et al., 2021](#)), Pilots are already employing and developing tools and methods that are relevant for the FCH Toolkit.

## 5. CO-DESIGNING THE FAB CITY HUB TOOLKIT

The previous parts of this deliverable provide a general introduction of the role the FCH Toolkit will have within CENTRINNO and its afterlife ([chapter 2](#)). It also displays an exhaustive overview of the resources studied to build the present Toolkit ([chapter 3](#)), whereas [chapter 4](#) indicates how the Toolkit was structured on those resources and the outputs of WP3. This has been achieved through the Ways of Navigating concept and the Tailor-made Tagging System, a way of navigating through the toolkit and a proposed methodology to gather, analyse and test tools for setting up FCHs.

Alternatively, chapter 5 aims to introduce the readers to an overview of the main actions planned to co-design and further develop the conceptual structure of the FCH Toolkit. To this end the following chapter is articulated along 2 different sub-chapters:

The first, **chapter 5.1 Building the Fab City Hub Toolkit workshop** describes the first co-creation workshop that has been organised with Pilots during the Consortium Meeting in Amsterdam. It provides an analysis of this workshop and extracts some relevant insights from it. Furthermore, it traces possible adjustments of the FCH Roadmap based on the workshop results.

The second, **chapter 5.2 Pilot's Roadmap to Fab City Hub**, offers an overview per Pilot reporting relevant information and insights about the pathway each city is taking toward their local model of FCHs.

It is strongly believed that this part is fundamental to drive the next iterations of the FCH Toolkit. Only by knowing and understanding what challenges and needs the Pilots are encountering in their local experiences, can further iterations of the toolkit be better designed, translating insights, common patterns and best practises, observed from the Pilots' experimentation process, into actionable tools for FCHs.

The information contained in both chapters, 5.1 and 5.2, will be used as a precious database for analysing Pilot's needs and skills related to setting up a FCH and as a starting point to further co-design activities and thematic sessions that will be developed in future tasks within WP3. In fact, the main objective of further activities with Pilot cities is to provide and test tools to support the implementation of FCHs and ultimately to enrich the FCH Toolkit in its further iterations.

In particular, section 5.2 has been developed by analysing the results and inputs provided by Pilots during the '*Building the FCH Toolkit*' workshop and by integrating additional information linked to FCHs, extracted from activities and efforts developed in WP4.

Specifically, resources such as the bi-weekly coordination calls, the one-on-one sessions as well as the information provided in the Dashboard and collected in the recent deliverable, **D4.2 Collective Results Sprint 1** have been of fundamental importance to write this section. Being FCHs the physical materialisation of the 5 key concepts, a particular attention has been given to challenges related to the key concept **Innovation Space**, keeping in mind the socio-economic (and political) dimension the word '*space*' encompasses in urban studies.

### 5.1 Building the Fab City Hub Toolkit workshop

During the last consortium meeting held in Amsterdam from the 12th to the 14th of October, Volumes, as WP3 leader, organised a co-creation workshop with the participation of all Pilot cities. The overarching aim of this workshop was to co-design and test initial insights and proposals Volumes and task partners acquired from the work developed so far in WP3, to match their relevance with the Pilots' experiences in relation to what a FCH is.

In particular, this workshop was the first co-design session to test and adjust the FCH Roadmap (chapter 4.1), a theoretical model, with the actual roadmap Pilots are following in

their Experimentation Process. In line with the conceptual approach adopted for the present Toolkit, it was an activity that aimed to implement the concept of building the FCH Toolkit as the result of a continuous cross-pollination between theory and practice.

The format was a hands-on workshop based on online Miro board support. The reason for using an interactive and online support was twofold:

- to collect and store information in an easy and smooth way as well as to facilitate further interaction on the same Miro Board
- to facilitate the remote participation of Pilot partners that weren't able to join the consortium in Amsterdam due to Covid restrictions.

Pilots were divided per city around the same table, and they were asked to:

1. Read and comment on a series of suggested cards, the FCH Step-Cards (*Fig. 13*) each representing a fundamental step toward the implementation of an FCH. The 12 proposed Step-Cards have been designed specifically for the workshop and aimed to be a graphic representation of the possible steps of the FCH Roadmap described in [chapter 4.2](#) as well as a test during the workshop to verify their relevance in the Pilots Experimentation process. Each Step-Card contains:
  - a title
  - an image
  - a short explanation of the steps
  - an example of a tool related to the step



**Figure 14 - FCH Step-Cards**

2. Organise the 12 Step-Cards following the **FCH Trello** (*Fig. 14*), a visual system to display and manage a chronological workflow of actions, organised in *Done*, *Doing*, *To do* and *Not relevant* sections. It aimed to display the actual Pilot's process and their fundamental steps towards their own approach to FCHs.



Figure 15 - FCH Trello

3. Feed each card by writing their experience, needs and requests for support, and indicate tools and methods they have or will employ in that step.

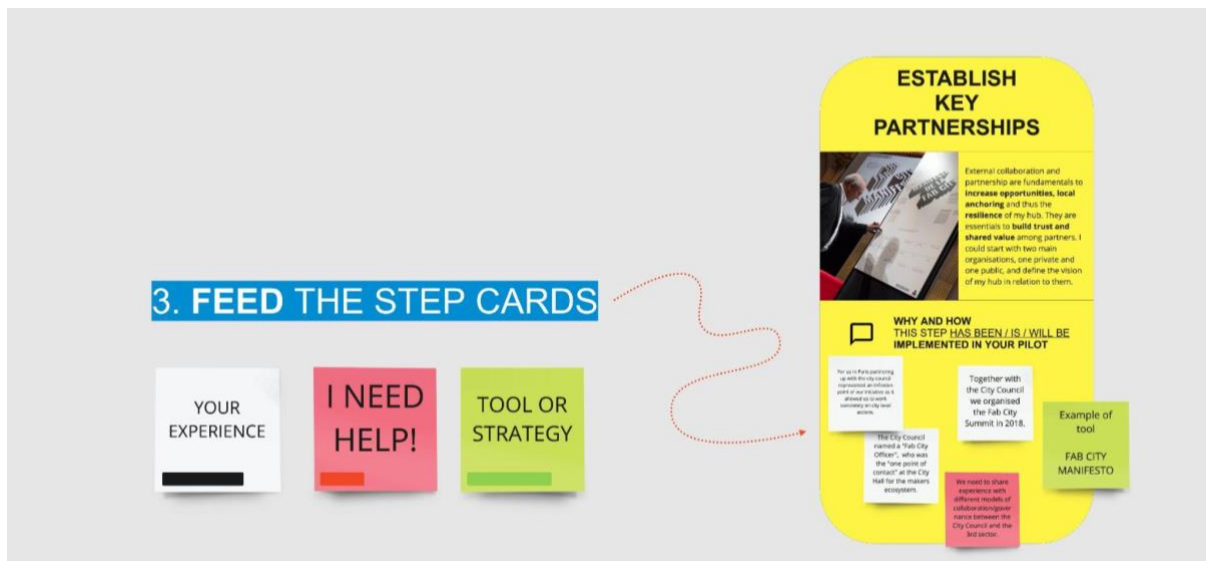
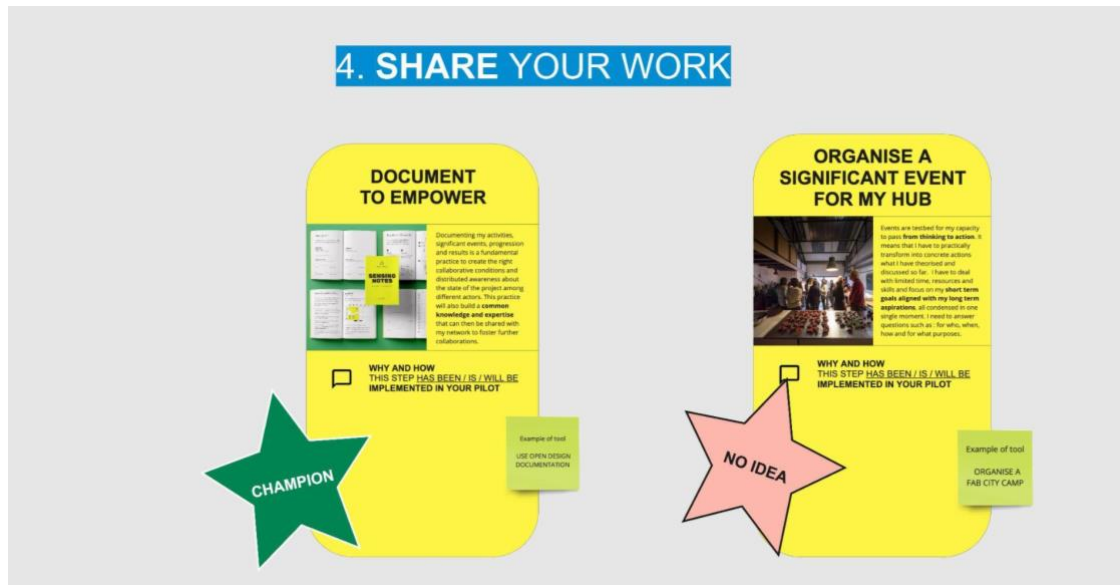


Figure 16 - Feed the Step-Cards and share your experience

4. Choose and share, among all the suggested Step-Cards, 1 where they are champions and 1 where they need support for (Fig.16).



**Figure 17 - Champions and ‘need for support’**

Through these 4 steps the workshop aimed at 4 main objectives:

- To provide a clear and general understanding of the process each Pilot is taking toward the definition and implementation of the FCH
- To test the selection of actionable steps that, in future iterations, will build up a possible FCH Roadmap based on Pilots’ experience
- To identify skills and needs for support to specific steps
- To (eventually) collect tools, activities and methods that they are already using

The workshop was well understood and received positive feedback from all Pilots. It was a useful exercise to visualise and reflect on their past and future actions. All Pilots have completed the tasks and the majority has shared their experiences.

As a first analysis, all Pilots provided a clear idea of their process, the steps done and the ones they have to undertake. Only a few steps are considered not relevant - **X**- (see Fig. 17). Nevertheless, this seems contradictory to the experience they shared in some comments on the Miro board. This reveals that maybe those steps haven’t been well understood and further clarifications are needed. It was the case, for example, of two Step-Cards such as ‘Blend the physical with the digital’ and ‘Resist the urge to organise everything’.

With the collected results, common paths were identified as well as the distribution among pilots of skills and the need for support was identified.



Pilot Name	WRITE A PITCH	ORGANISE A SIGNIFICANT EVENT	DECIDE MY TYPOLOGY	DECIDE MY BUSINESS MODEL	ESTABLISH KEY PARTNERSHIP	BUILD & GROW MY COMMUNITY	MAP MY ECOSYSTEM	DEFINE MY OPERATIONAL TEAM	DEFINE PRODUCTION FACILITIES	BLEND PHYSICAL WITH DIGITAL	DOCUMENT TO EMPOWER	RESIST THE URGE TO ORGANISE EVERYTHING
Paris	▶	✓	▶	▶	▶	✓	✓	▶	▶	✓	✓	✓
Milan	▶	✓	▶	✓	✓	▶	✓	✓	✗	▶	▶	▶
Barcelona	✓	✓	▶	✓	✓	▶	▶	▶	✓	✓	▶	✓
Amsterdam	▶	✓	▶	✓	▶	▶	▶	✓	✓	✓	✓	✓
Copenhagen	✓	✓	▶	✓	▶	✓	▶	✗	✗	✗	✓	✗
Zagreb	▶	▶	▶	✓	✓	✓	✓	▶	▶	✓	▶	✓
Tallin	▶	✓	▶	✓	✓	▶	▶	✓	✓	✓	▶	✓
Geneva	✓	✓	✗	✓	✓	▶	▶	▶	▶	✗	✓	▶
Blondus	✓	▶	✓	▶	▶	✓	▶	✓	✓	✓	▶	✗

Figure 18 - Graphic overview of all Pilots' FCH Trello

 = Done    
  = Doing    
  = To do    
  = Not relevant

The image above provides a summary of the results of the FCH Trello following the legend. It appears clear that the majority of Pilot cities have already organised significant events for their hubs (column 2), at the same time they are still working on the definition of their hub typology (column 3).

This confirms that event curation and programming are tools used to build up a community together with explorative strategies to create conditions for debates about the needs for a space, instead of designing beforehand, as the principle 5, 'Community First, Space After' suggests. The effectiveness of these tools should be then evaluated.

At the same time, column n. 3, referred to as the Step-Card 'Decide my own typology', reveals **the key role space plays in fostering and gathering communities**. This is demonstrated by the fact that the majority of Pilots Cities are exploring different and innovative spatial strategies toward their FCH typology, and probably they will continue to explore in next sprints.

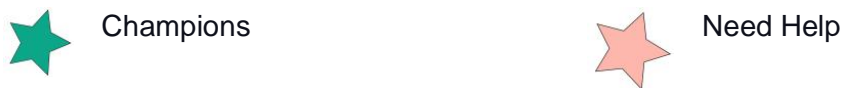
Another insight that could be taken from this summary table is expressed in column 4, 'Design my Business Model' Step-Card. The majority of Pilot Cities have not yet started to define their own business model since, according to the information provided in further iteration with Pilot, in the majority of cases it aims to be collectively designed according to community needs and objectives.

In addition, as confirmed by the second summary table (Figure 17), which depicts how skills and needs are distributed across Pilot cities, more knowledge and expertise about financial strategies and business models are required by Pilots.



Pilot Name	WRITE A PITCH	ORGANISE A SIGNIFICANT EVENT	DECIDE MY TYPOLOGY	DECIDE MY BUSINESS MODEL	ESTABLISH KEY PARTNERSHIP	BUILD & GROW MY COMMUNITY	MAP MY ECOSYSTEM	DEFINE MY OPERATIONAL TEAM	DEFINE PRODUCTION FACILITIES	BLEND PHYSICAL WITH DIGITAL	DOCUMENT TO EMPOWER	RESIST THE URGE TO ORGANISE EVERYTHING
Amsterdam						★	★					
Barcelone		★		★								
Blonduos				★	★							
Copenhagen			★						★			
Geneva	★			★								
Milan		★		★								
Paris							★				★	
Tallin		★		★		★						
Zagreb				★								★

Figure 19 - Graphic overview of all Pilots’ ‘champions and needs’



A second objective of the workshop was to collect tools, methods and activities Pilots are using. In addition, by asking them to choose where they are champions and where they will need help, the results collected through this workshop will serve to produce a diagnosis of pilot capacities and skills and also to highlight those steps where there is more need for support and expertise.

Pilots indicated only a few tools across the 12 Step-Cards. This demonstrates that, in this first sprint, Pilots are in an exploratory phase, testing through different activities and actions, formats that could potentially become tools once their replicability and effectiveness is demonstrated. To that end, it is important to evaluate the results those significant events have in their roadmap to their own model of FCHs.

The data collected via the Dashboard showed that Pilots have organised and tested a large number of events (around 400<sup>42</sup>), exploring different formats such as open calls, workshops, kick-off events and targeting different stakeholders in order to build up and strengthen their communities. This data provided in the Dashboard will be analysed to extract possible tools, methods and good practises that could be replicated and thus become tools within the CENTRINNO experience toward the setting up of FCHs.

Next actions within WP3 to sustain Pilots and update the versions of the FCH Toolkit according to their needs are the following:

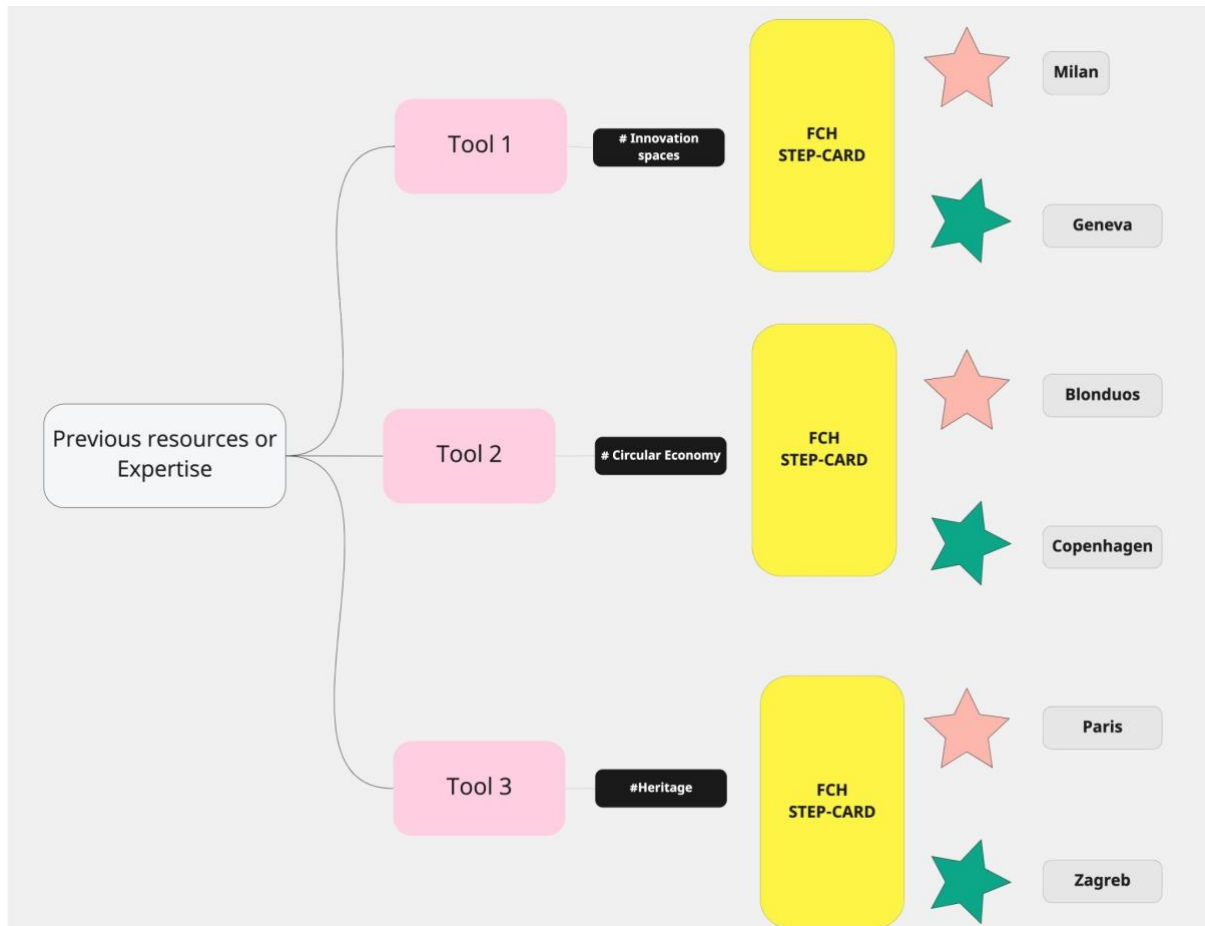
1. To update and refine the FCH Roadmap according to the insights and suggestions Pilots have provided during the ‘Building the FCH Toolkit’ workshop. Example of these updates would be:

- to add Step-Cards that are missing or delete other
- to clarify the definition of some of them

<sup>42</sup> [Wippoo M. et al., 2021](#)

- to underline common paths and their relationship with the context situation of each Pilot

2. To connect the tools and methods that have been collected so far within CENTRINNO: the ‘Initial collection of tools and resources’ ([Muñoz Unceta, P. et al., 2021](#)), the selection of tools from experts using the Tailor-made Tagging System reported in the Annex session of this deliverable and the tools Pilots have used in the steps proposed in the FCH Roadmap, as explained in the diagram below.



**Figure 20 - Collected tools and possible connection with FCH Step-card**

3. To design specific activities based on the results of this analysis, in order to test tools and methods. This will inform on how the Pilots' successful actions can be transformed into replicable tools for the FCH Toolkit

4. To update the FCH Roadmap following the analysis of the workshop, the progress and the exchange WP3 will have with Pilots along with the next periods and tasks.

## 5.2 Pilot's Roadmap to Fab City Hub

As stated in the CENTRINNO Framework ([Muñoz Unceta, P. et al., 2021](#)) and underlined by the 10 principles for FCHs ([Amato, D. et al., 2021](#)), each Pilot city will follow a specific process and will develop its own model of FCH, based on their objectives and influenced from the local context, the needs and available resources.

One of the aims of the FCH Toolkit is to document these emerging FCH models and to support Pilot cities in this effort.

To this end, the following sections aim to provide an overview of the progress each Pilot city has made and from there understand common paths toward FCH Roadmaps, extract possible tools and good practises to feed the further iterations of the FCH Toolkit.

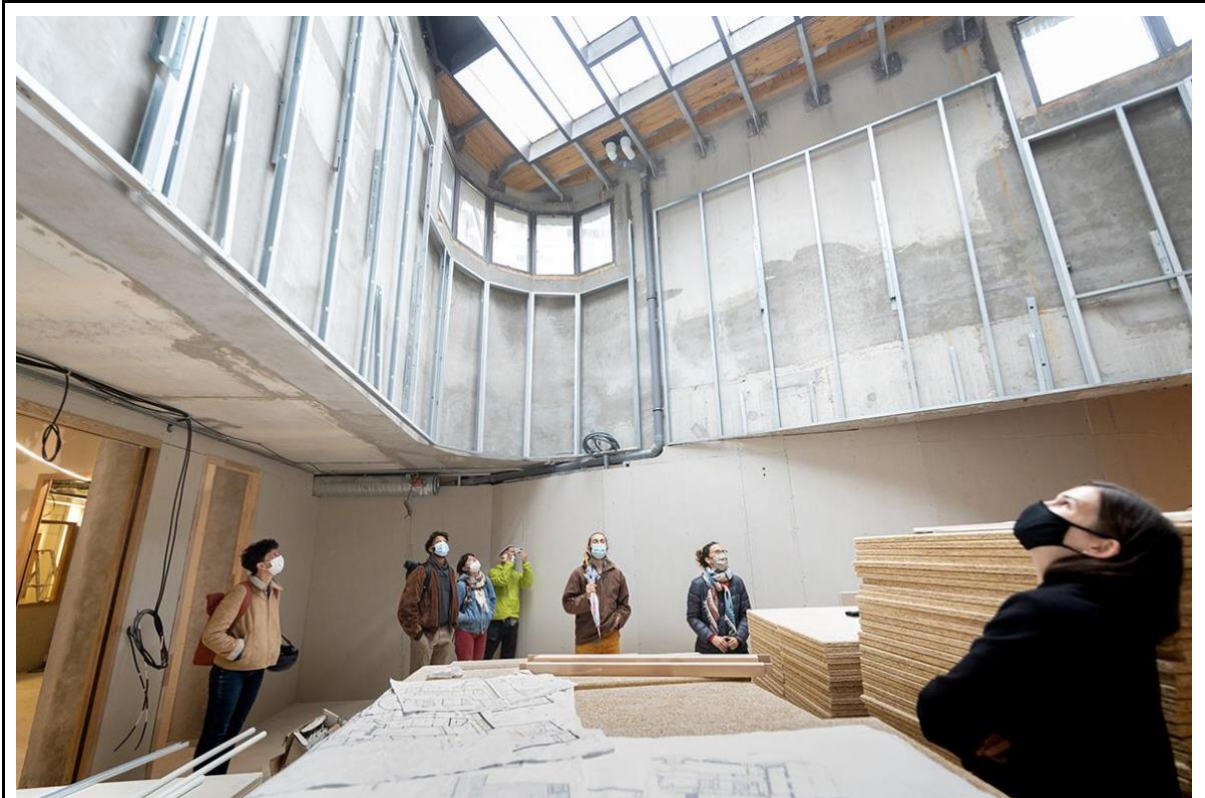
Each section, organised per city, follows the same structure:

- **A picture** evocative of the Hub
- **A summary table** with key information about the Hub's location, the typology and the spatial strategy, but also key partners and stakeholders
- **A narrative section** describing the process and the fundamental steps they have undertaken toward their own model of FCHs. This narrative section is complemented, in some cases, by a '**Focus-Box**' providing insights on what has been estimated as a good practice. This could be a significant event, a method or a strategy adopted by the pilots for their specific challenges linked to the setting up of their FCH.
- A **screenshot visualising the FCH Trello** each Pilot has composed during the workshop held in Amsterdam in October 2021.

In this way, these sections aim to start sketching the multifaceted landscape of FCH that is being developed within CENTRINNO. It is worth noticing that being FCHs the final goal of each CENTRINNO Pilot, this section is conceived as a work in progress and will be furtherly nourished and updated in the next iterations of the Toolkit according to Pilot's progress and future activities developed in this regard.

This Pilot's overview has been developed starting from previous efforts and collections of data within CENTRINNO: it mostly builds upon the information collected during the '*Building the FCH Toolkit*' workshop, the data collected from the Dashboard and then reported in the D4.2 Collective Effort Sprint 1, in addition to the discussions and exchange of information with Pilots during the coordination calls and the one-on-one meetings coordinated by Waag (WP4).

### 5.2.1 Roadmap to Paris' Fab City Hub



*Figure 21 - The communal space for events in the future FCH Paris*

<b>Name - Location:</b>	<b>Fab City Hub Paris</b> - 58 -66, Rue de Mouzaïa, 75019 & <b>Jardin des Traverses (JdT)</b> - La Chapelle, 75018, Paris.
<b>Web address:</b>	<a href="https://hub.fabcity.paris">https://hub.fabcity.paris</a>
<b>Project Partners</b>	<b>Fab City Grand Paris</b> - Association and network of local creatives and Makers, <b>Volumes</b> -Research and project Lab for circular and creative spaces, <b>Sony Lab</b> - Research Lab on sustainability, innovation dynamics and creativity
<b>Status:</b>	Next opening in February 2022, JdT will open in 2023
<b>Hub Typology - Spatial Strategy:</b>	One centralised historical industrial building networked to other distributed creative and productive spaces in the city and an outdoor area along the railways track
<b>Key Stakeholders:</b>	<b>Oasis 21</b> - the hub operator, the <b>Municipality</b> in particular the Food and sustainability Paris department, interested communities of makers, and the local actors of food systems

### Current state of the Paris model of Fab City Hub

The Paris Pilot team aims to build a local FCH ecosystem capable of attracting and supporting a diversified set of actors of the productive and innovative city with a particular focus on urban food systems production, transformations and distribution through the lens of the circular economy and heritage. Due to the upcoming opening of the new FCH in a central and popular neighbourhood of Paris, it was urgent to gather the diversified communities of makers, designers and food producers around the notion of FCH, enquiring their needs and expectations and aligning values and objectives.

Three main actions were conducted to advance on these efforts:

1. **A survey** was shared among different actors, to collect feelings and perceptions regarding what a FCH should be for them.
2. A dedicated event, the **Fab City Camp Paris**, was organised to present the CENTRINNO project to local partners and communities of makers but also to share inspiring projects and ideas for common challenges about the productive city. During the Fab City Camp Paris, a series of workshops, using the Emotional Networking methodology, were tested with participants to inquire about the notion of heritage, community and production.
3. **Strategic monthly meetings** among the future hub Operator Oasis 21, FCGP and Volumes were organised to share challenges and align objectives. These meetings will continue during the second sprint, and they will serve to define a plan of actions to adapt the 10 principles for FCH ([Amato, D. et al. 2021](#)) to the Parisian local context.

An important challenge the Pilot team faces toward their model of FCH is to find a suitable business model able to balance between markets and local communities' needs. To this end, in their second sprint they will plan recurrent meetings with key stakeholders to develop a concrete business strategy and to allow them to take further actions. In addition, the experience of other Pilot cities and best practises for social inclusive hubs will be beneficial for the Parisian team in the next sprint.

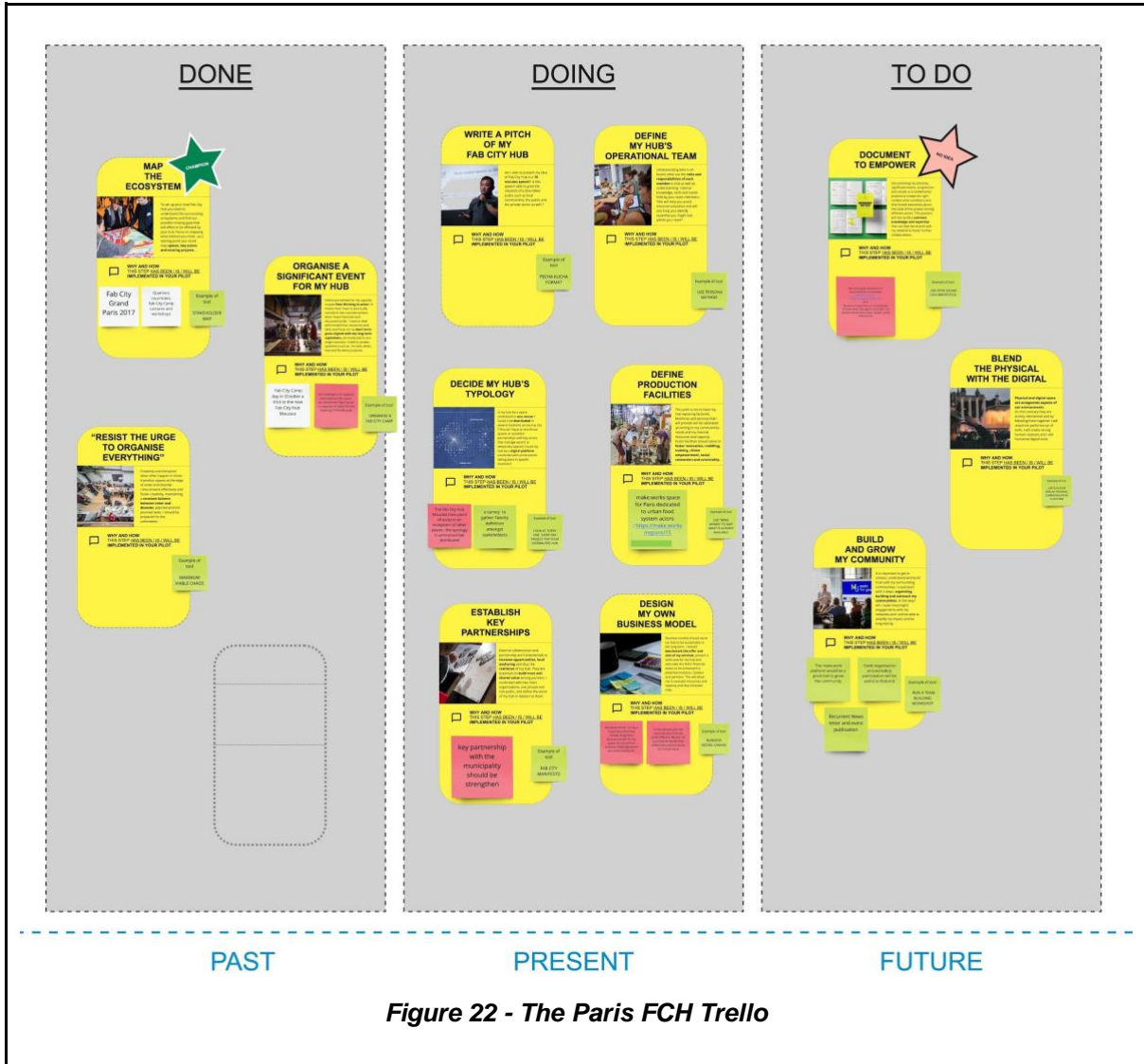


Figure 22 - The Paris FCH Trello

Find [here the link](#) to the Miro Board used during the 'Building the FCH Toolkit' workshop



## 5.2.2 Roadmap to Milan’s Fab City Hub



**Figure 23 - Fab City Camp Milan**

*The launching event of the MILAN’s CENTRINNO project*

<b>Name &amp; Location:</b>	NYD - currently based at BASE, via Bergognone 34,20144, Milano
<b>Web address(s):</b>	<a href="https://medium.com/@manifatturamilano">https://medium.com/@manifatturamilano</a>
<b>Project Partners</b>	<b>Municipality of Milan, Manifattura digitale</b> in ex- Ansaldo rete di imprese
<b>Status:</b>	Exploratory phase, on-going definition of their Fab City Hub model
<b>Typology &amp; spatial strategy:</b>	NYD but oriented toward a decentralised & distributed network of spaces
<b>Key Stakeholders:</b>	

### Current state of the Milan model of Fab City Hub

The overarching objective of the Milan Pilot team within CENTRINNO is to design a model of FCH that will enhance, support, and connect a network of makers, artists and small producers to sustainable production in the 15 minutes city ([Wippoo M. et al., 2021](#)). Currently, they are in an exploratory phase toward this model, and they are engaging with key stakeholders to understand, from their perspective, what a FCH means, what its role, services and potential tangible forms would be.

For these reasons, during the first action period, they were not focused on designing a physical space, but they concentrated their efforts on understanding, mapping, and activating existent ecosystems through the organisation of different formats of events.



In their first sprint, the Milan team has reported 25 significant events ([Wippoo M. et al., 2021](#)) ranging from a call for proposal, a kick-off event (the Milan Fab City Camp) to **networking events, small group workshops, stakeholders' engagement activities**, and an **artistic residency**. Among those, the Milan Fab City Camp could be considered as a tool they have used to start co-designing and implementing their local approach to FCH. This format included:

- Prior to the event: a call for proposals was launched to engage future participants during the Camp
- During the event: a series of panel discussions, workshops and networking sessions

From these activities they aim to progressively build a strong core community of sustainable producers and makers with whom they co-design their local model of FCH. As materialised in the workshops, this model should be flexible and adaptive to the specific context and emerging needs. During the next sprint, they aim to start testing their FCH model, designing specific activities according to the needs of producers and identifying and trying out different business models.

Even though the core team is located in BASE, in a creative and productive hub in the Tortona neighbourhood, whose hybrid and flexible nature helped host several significant events during the first sprint, they do not want to limit their activities and the identity of their FCH to this place. They aim, instead, to expand their presence across different neighbourhoods of Milan.

Nevertheless, one of the main challenges of a distributed approach is to expand the network of actors at the city scale on one side, and to maintain this emergent community engaged and involved in the project on the other.

Accordingly, the Milan team, besides organising events and activities to iteratively grow and map their communities, is setting up a strong and structural digital presence. In the *focus -box* below, some details and objectives of this strategy are reported as a good practice to have in mind to set up an FCH.

### Focus-box

#### ***Set up a strong digital strategy to expand your presence and keep your community involved***

*The Milan Pilot team is developing a strong digital presence strategy that aims to amplify their presence across the city, strengthen and support the involvement of their emergent community, and provide visibility to the members of this network. Multiple actions will serve this purpose:*

- *Integrating, as part of the Pilot's team, a **dedicated person for communication** purposes*
- *Activating a dedicated blog, accounts on social media networks as well as a dedicated **Telegram Group** for the people involved in previous events*
- *Translating the **CENTRINNO Whitepaper** for local dissemination*
- ***Setting up a strong and unique medium:** a combination of a **website** and a **newsletter** with an editorial line. This will serve to*
  - *Build a strong identity and understanding of the Fab City Hub concept taking inspiration from the local context but also from other cities and countries*
  - *Collect and disseminate stories about sustainable production, its actors, and change the narrative of circular production*
  - *Connect different activities that have taken part in different spaces*

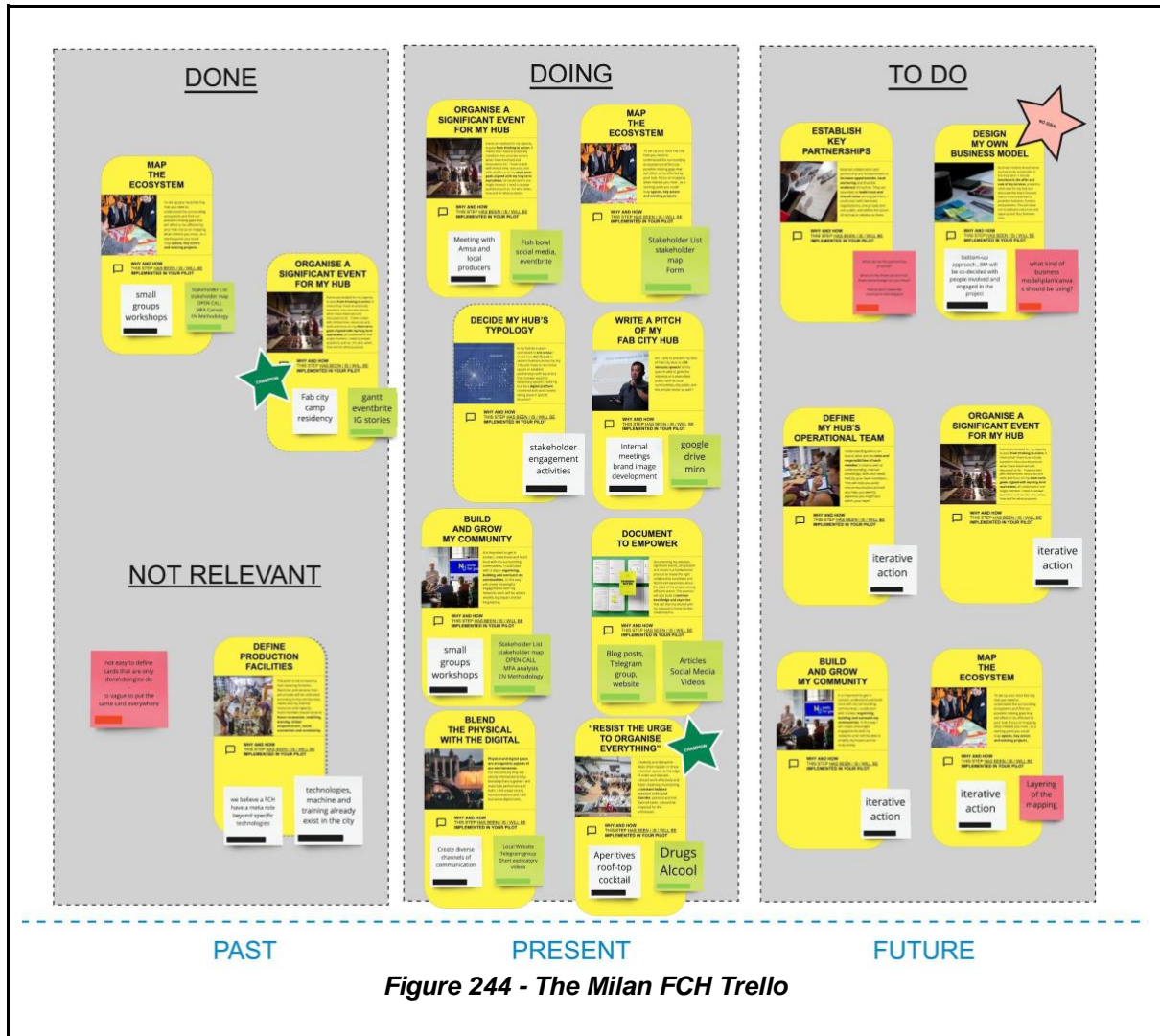


Figure 244 - The Milan FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.3 Roadmap to Barcelona’s Fab City Hub

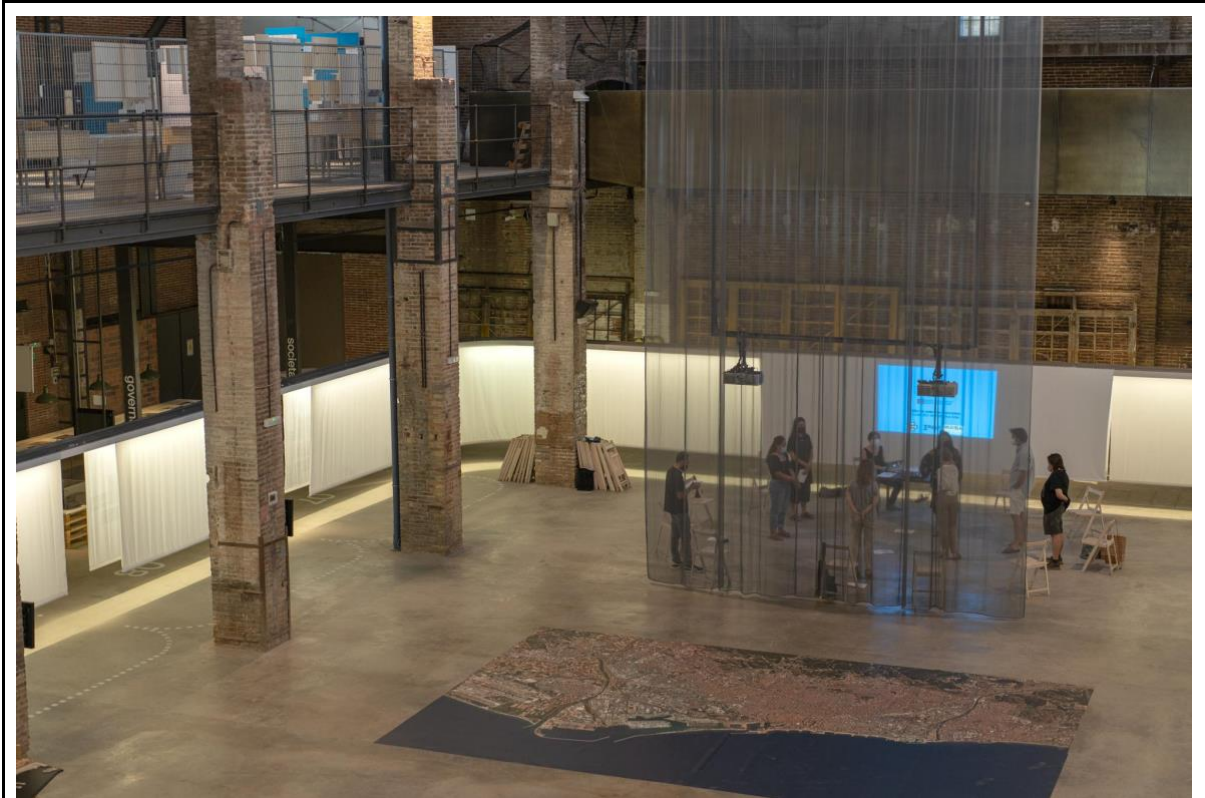


Figure 25 - Barcelona Pilot’s team participating in an EN workshop at MUHUBA

<b>Name &amp; Location:</b>	NYD - Poblenu in Sant Martí District
<b>Web address(s):</b>	<a href="https://bcn.fab.city/">https://bcn.fab.city/</a>
<b>Project Partners</b>	<b>IAAC</b> - Institute for Advanced Architecture of Catalonia, <b>InnovaFP</b> - Professional Training and knowledge transfer innovation company, <b>Poblenu Urban District</b> - a private non-profit association of professionals, companies and organisations from the creative and cultural sector.
<b>Status:</b>	Exploratory phase, on-going definition of their FCH model
<b>Typology &amp; spatial strategy:</b>	NYD but oriented toward a decentralised & distributed network of spaces
<b>Key Stakeholders:</b>	Local neighbourhood organisation Taula Eixe Pere IV

#### Current state of the Barcelona model of Fab City Hub

The Barcelona Pilot team aims to set up a FCH that is not, for the time being, necessarily embodied in a physical space or a series of distributed hubs. Rather, they visualise their local model of FCH as a comprehensive infrastructure capable of enhancing the existing “Poblenu neighbourhood’s industrial heritage sites as knowledge sharing, productive, and creative-driven hubs by bridging the gap between heritage, education, circularity, and local communities” ([Wippoo M. et al., 2021](#)).

In this first sprint, they concentrated their efforts in better understanding their local context, the Poblenou Neighbourhood, by analysing and mapping its local ecosystem through existing initiatives, spaces and stakeholders. For this purpose, they used a series of tools and platforms such as the **Make.Works**<sup>43</sup>, the **stakeholder survey**, **Kumu collaborative mapping platform** and held several meetings with possible stakeholders to better understand their needs, their level of engagement and align common objectives.

They also organised and participated in several events <sup>44</sup>as well as vocational training and activities with students, always trying to connect with existing local events in order to maximise synergies and align contextual objectives with the one of CENTRINNO. By doing so, the Barcelona Pilot Team holds a strong expertise in event organisation, as they shared during the '*Building the FCH Toolkit*' workshop and in the reporting 4.2. In the Focus-Box below, a series of practical insights and tools from the Barcelona experience on event organisation will be shared. Indeed, for the sake of this research, event organisation is a fundamental action to nurture and maintain the liveliness of FCHs.

### Focus-Box

#### ***Tools and recommendations when organising an activity or an event***

(From Barcelona Pilot Experience)

*Activities and events are fundamental actions to setting up and maintaining FCHs. Nevertheless, they are time and resource-consuming. For that, it is important to have in mind the following points:*

- *Plan activities according to resource availability (budget, time, people, knowledge) & distribute work among partners*
- *Use Management Spreadsheet for organising events and activities*
- *Use social media, newsletters and press releases to spread the news*
- *Document your ideas that could be tested in upcoming phases. For example, 1) hands on activities 2) a database of spaces to visit or engage with 3) stakeholders to collaborate with.*
- *Document your activities and achievements to empower and make your stakeholders aware. Some examples could be 1) Fab City Hub Gitbook 2) Fab City Hub Barcelona web site*
- *Identify opportunities to perform activities by checking the local agenda of festivals and events and combine activities with other existing initiatives*
- *Take time to reflect on the activities developed to identify further improvements.*

<sup>43</sup> To know more about this platform visit the [MakeWorks web page](#)

<sup>44</sup> For a complete list of events, please consult [D 4.2 Collective Results Sprint 1](#)



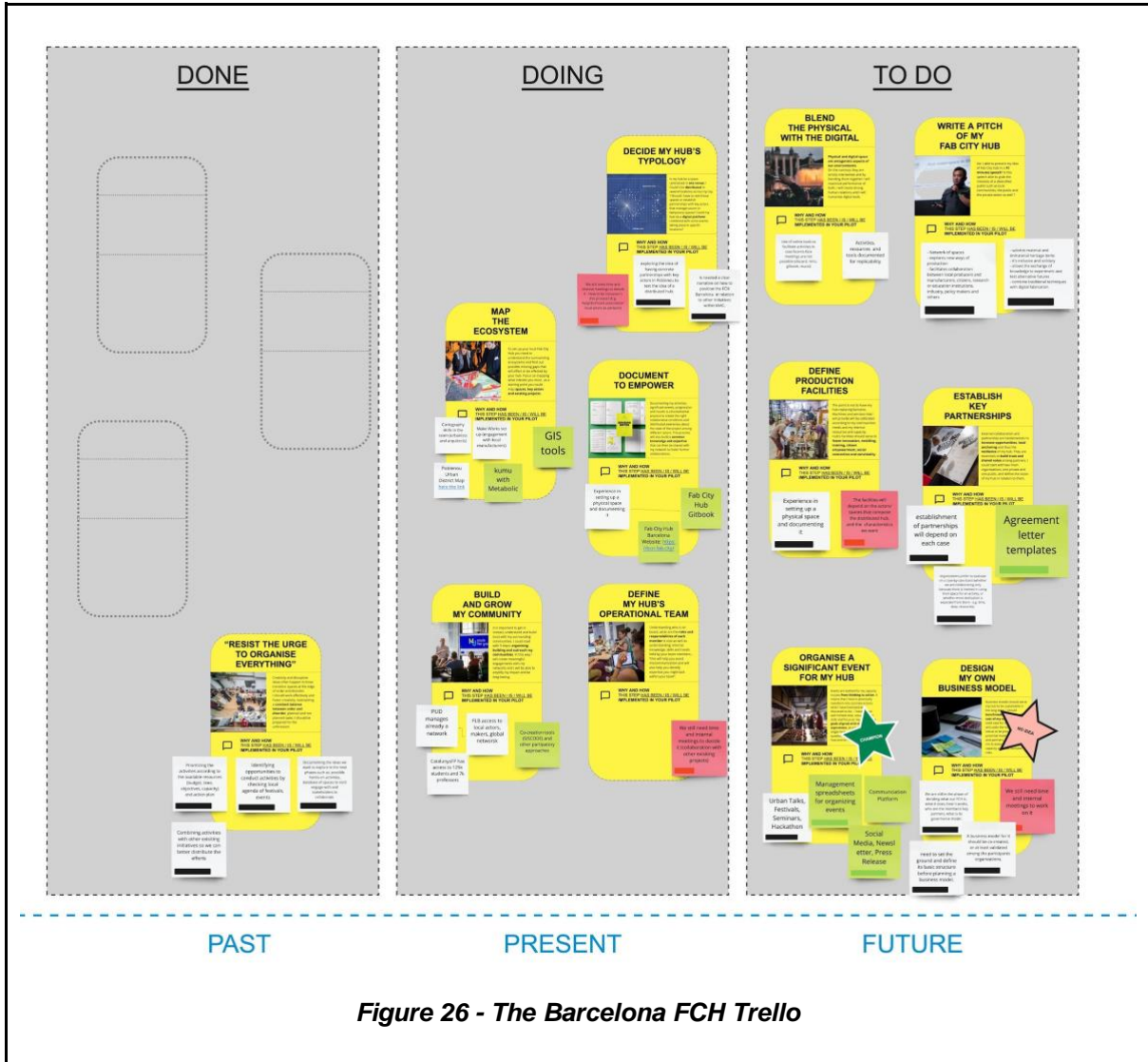


Figure 26 - The Barcelona FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.4 Roadmap to Amsterdam’s Fab City Hub



*Figure 277 - Maker Space in Amsterdam North*

<b>Name &amp; Location:</b>	NYD - Buiksloterham and the NDSM-wharf area
<b>Web address(s):</b>	-
<b>Project Partners:</b>	<b>Waag</b> - innovative research lab on science and technology, <b>Pakhuis de Zwijger</b> - a national and local platform and a space for social innovation & creation in the city, <b>HMC</b> - Wood and Furniture College
<b>Status:</b>	Exploratory phase, on-going definition of their FCH model
<b>Typology &amp; Spatial Strategy:</b>	NYD but they are oriented toward a decentralised and distributed network of spaces
<b>Key Stakeholders:</b>	Amsterdam Municipality, Educational Institutions, Cooperative and real estate companies managing affordable vacant spaces

#### Current state of the Amsterdam model of Fab City Hub

Amsterdam's model of FCH is not necessarily linked to one physical space but oriented toward the creation of a **decentralised network of distributed spaces** in Amsterdam Noord for distributed production and learning. In this first exploratory sprint, the Amsterdam team tested a *'nomadic spatial strategy'* to have a constant physical presence in the neighbourhood and to better know the local communities and their needs. To that end, they organised and tested a series of distributed weekly events called **Open Workshops**.

One of the main services they want to provide is formal and informal learning for (young) makers and citizens in the neighbourhood. They are oriented toward a model of a distributed educational program in line with their spatial approach. This will concretise establishing collaborations with educational companies and institutions that already own their spaces and provide training on location. This approach builds the foundation for distributed production and learning in the city. In order to address this challenge, one of their needs is to work on a sustainable **business model for distributed educational programmes**. One of the main challenges linked to that is to look for appropriate funding schemes for distributed learning programs, as well as to find the type of organisational structures and governance models that could sustain those kinds of programs.

Access to affordable spaces both for the CENTRINNO's Amsterdam Pilot team and for the maker's communities has been one of the crucial points of this first sprint. To investigate the economic sustainability of this distributed model, partnerships with key companies and public actors are fundamental. For now, the Pilot's team has permanent access to a space provided by **Made Up Noord**, and they are in contact with **Allianzy**, a local cooperative that runs public housing. The **Municipality** is potentially a key partner to work with during the next sprint, with the aim of developing a new **model of collaboration with public entities and private companies on how to access affordable space for craftsmanship**.

### Focus-Box

#### ***Open Workshop a nomadic strategy to find your local model of FCH***

*Open Workshops are weekly events the Amsterdam team organise and facilitate by engaging with a different maker space every time. The workshop could take different forms and is tailored around guests' and hosts' needs, ideas and activities. It could be a furniture maker workshop or a steel builder but also a training session or a conference. It is a low investment action, since it makes use of already existing places, and allows the Pilot team to explore different spaces of the neighbourhood, engage and connect with different actors of the area.*

*The distributed hub model was confronting a lack of visibility and missing a representative location to gather communities and run events. The Pilot's team expressed the need to look for affordable renting opportunities, and eventually establish a **Home Base** to represent the FCH. This space will work more as a representative space for organising events and gatherings rather than a place to host production machines.*

*Setting up a small **HOME BASE for a mid-term period** could be a practical action to prototype a collaborative model of governance, organisation and usage of a dedicated space for a distributed FCH as well as to test its sustainable funding scheme by developing a model of collaboration through partnership with private and public entities for accessible renting spaces.*



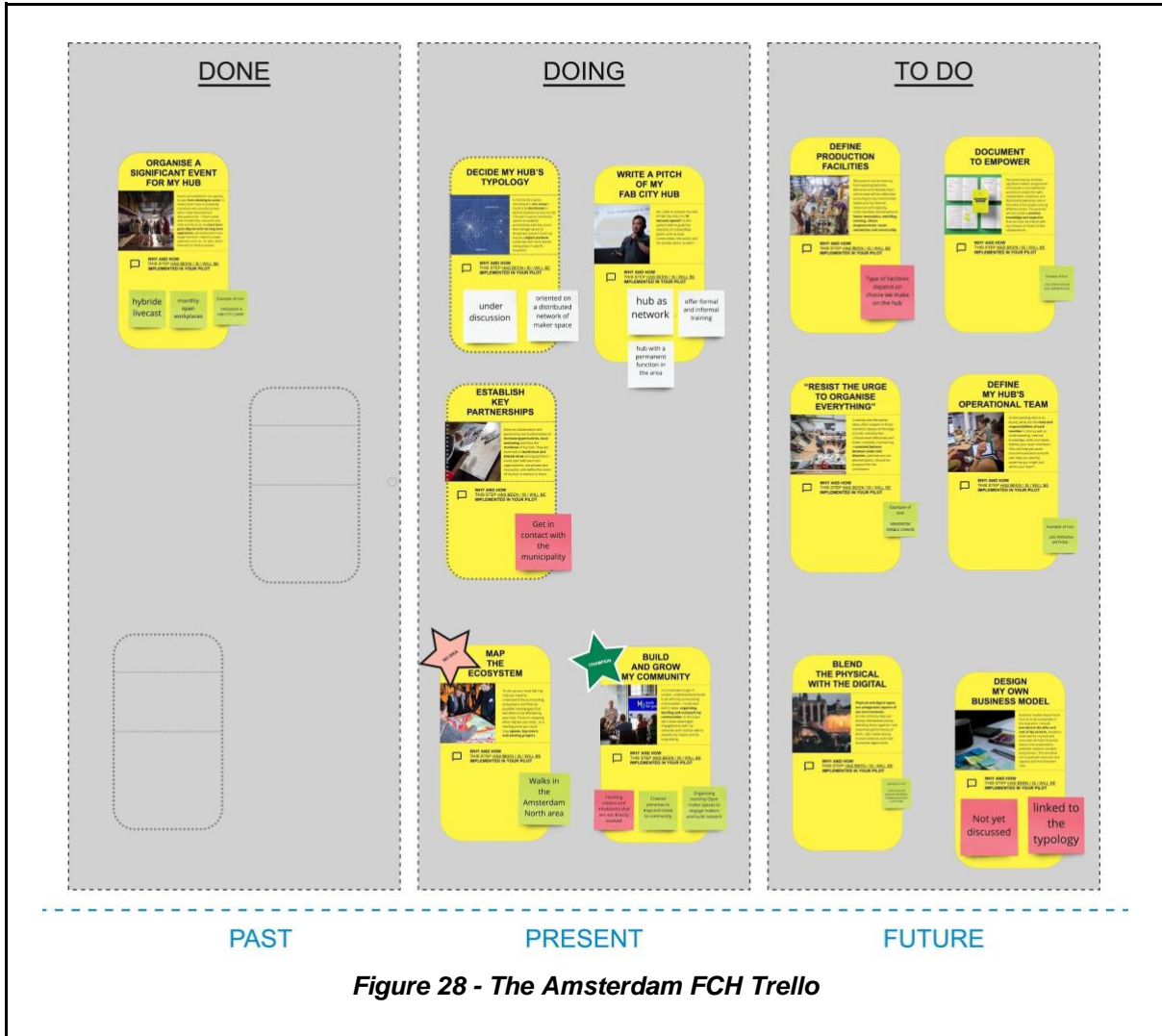


Figure 28 - The Amsterdam FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.5 Roadmap to Copenhagen’s Fab City Hub



**Figure 29 - An old millstone factory transformed to a theatre in North-West Copenhagen**

<b>Name &amp; Location:</b>	NYD & Rentemestervej 2400 København, a former industrial neighbourhood in the northwestern part of the town.
<b>Web address(s):</b>	-
<b>Project Partners:</b>	<b>DDC</b> - Danish Design Centre, <b>Københavns Kommune</b> - (Space NV-part of City of Copenhagen)
<b>Status:</b>	Exploratory phase, on-going definition of their FCH typology
<b>Typology &amp; Spatial Strategy:</b>	NYD & Oriented towards a decentralised & distributed network of spaces
<b>Key Stakeholder:</b>	The Association of the Danish Creative Place making (ULI), BOXHUB, local cultural and social actors, private developers for business and housing,

#### Current state of the Copenhagen model of Fab City Hub

The Copenhagen Pilot team envisions its idea of FCH as a scalable model for retention and development of creative environments and production in the city ([Wippoo M. et al., 2021](#)), especially focusing on the creative and maker industries and using a placemaking approach<sup>45</sup>. They see their role as facilitators and supporters of existing relations.

According to their vision of FCH, before working on concrete actions to set up their own local model, the Copenhagen team decided to conduct an in-depth investigation on the Pilot’s area, analysing the status of the creative actors and production companies in the north-west area as well as their needs, challenges and hopes for the local development.

The result of this analysis, together with the organisation of workshops, one-on-one meetings with key stakeholders and kick-off events with local companies, reveals the presence of an

<sup>45</sup> <https://www.pps.org/category/placemaking>

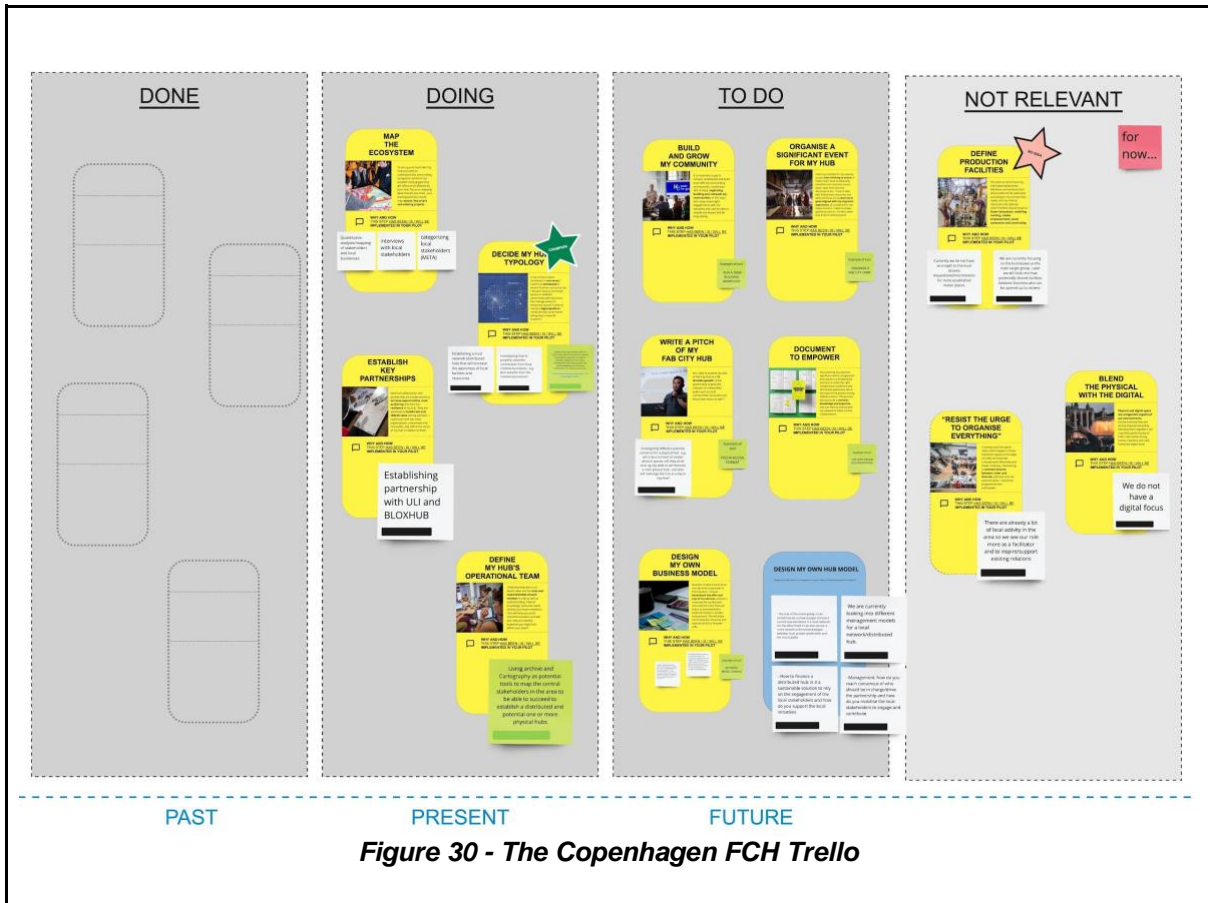
existing variety of well-established small physical spaces in the area. For these reasons, they discarded the initial idea to create a main central hub in the area and they are currently more oriented toward a distributed approach. The setting up of several physical hubs could be a better solution to engage local stakeholders and support existing resources and initiatives in the area. To this end, they are looking into different potential business models for urban developers and for local partnerships.

Nonetheless, a number of crucial questions remain to be answered regarding the distributed hub typology, such as the sustainability of its business model and a suitable management model for it. Sprint 2 will dig into these subjects by looking at best practises on these subjects.

Regarding useful methods and tools that could be used to sustain the emergence of new models of FCH, it is worth to be noted that the Copenhagen team used the Emotion Networking Method to provide inputs for the zoning area and they are currently evaluating the relevance of this tool in the development process for future local zoning plans.

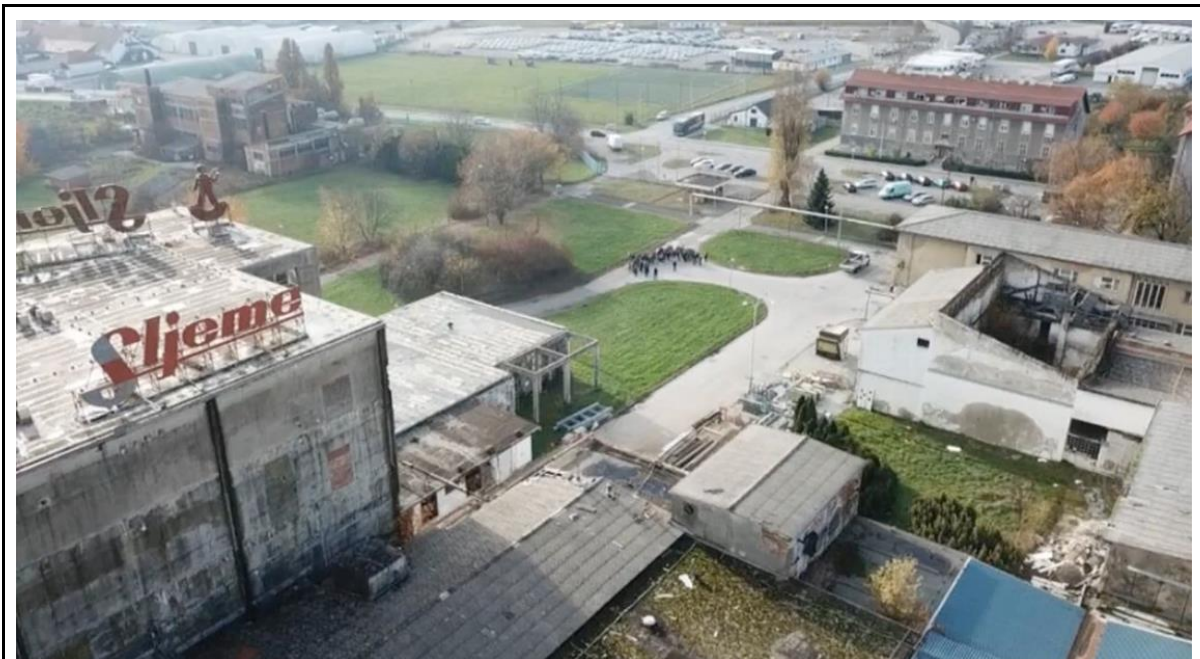
A second important insight that is worth noticing, extracted from the D4.2 Collective Results Sprint 1 of the Copenhagen pilot is the following: "Production of the written material has been a good way of constantly reflecting on the overall aim of the CENTRINNO project in Copenhagen" ([Wippoo M, 2021, p.69](#)). This sentence confirms the relevance of embedding into the FCH Roadmap a structural documentation strategy, as the '*Document to Empower*' step-card suggests. Indeed, documenting important activities, significant events, progression and results is a powerful method to build common knowledge and expertise that can be shared with your local FCH network to foster future collaborations and share awareness.





Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.6 Roadmap to Zagreb's Fab City Hub



**Figure 31 - Slijeme Factory in Sesvete district**

<b>Name &amp; Location</b>	<b>Fab City Hub_S</b> - Sljeme a former factory in the Sesvete district
<b>Web address(s):</b>	-
<b>Project Partners</b>	<b>University of Zagreb</b> - Faculty of Architecture, <b>Fab Lab Zagreb</b>
<b>Status:</b>	Exploratory phase, they are organising events and workshops in different locations across Zagreb waiting for the future opening of the dedicated building
<b>Typology &amp; Spatial Strategy:</b>	Centralised (in the future) housed in an old meat factory, Sljeme, but they are currently adopting a distributed approach using public spaces and buildings for events organisation
<b>Key Stakeholders:</b>	Local communities such as Green and Blue Sesvete NGO, local crafts association and SMEs, a local School

### Current state of the Zagreb model of Fab City Hub

The Zagreb Pilot team envisions their future FCH as a community centre open to a very diversified public: from independent makers to SMEs, open for collaboration with local NGOs, schools and the civil society at large. They imagined setting their FCH in a building, the former Sljeme meat factory in Sesvete, which provides different spaces - coworking areas, makerspace, fab labs - and would have worked as a laboratory for testing and prototyping innovative ideas proposed and developed by the community. Unfortunately, due to unforeseen events during this first year of the project, an earthquake and changes in the local government, the dedicated building won't be available for the next two years.

For these reasons, they had to change strategies and orient activities and events for their local model of FCH toward a more distributed approach. Furthermore, the ongoing Covid situation obliged the Zagreb team to organise small, distributed events across the city instead of setting up a big, centralised event to co-design their local hub model and run diversified activities.

These unforeseen difficulties turned out to be opportunities to engage with more diversified communities, since these events took place in different public locations across the city.

During this first sprint they organise three main events<sup>46</sup> :

- **Maker Faire**, a one-day event organised by the community of makers in a public square of the Zagreb centre, that focused on arts and crafts and intended to keep the community of makers involved after one year of inactivity. This event targeted interest groups including artisans, female makers and the makers community, but given its public setting it was able to reach a larger and diversified public.
- **STEAM Week event**, a three-day event focusing on innovative learning for teachers and that took the form of a training for trainers' workshops. During these three days three different groups were targeted, and three different topics were addressed.
- **Education Day International Conference**, a one-day event organised by FabLab Zagreb in the form of an international conference revolving around innovation in education.

It is interesting to underline, observing the Zagreb's experiences, that the organisation of events in public places across the city could be a fundamental opportunity to test future challenges for your local FCH:

<sup>46</sup>For an exhaustive and complete description of the Zagreb Team events consult the [D4.2 Collective Results Sprint 1](#)

- It strengthens the organisational skills of the different partners of your team, and it increases the sense of ownership toward the project
- It allows to re-activate already known networks, but also to reach out to unexpected communities that will randomly gather to a public space
- It is an opportunity to gain visibility of public authorities and to create the condition for future partnerships
- It is an opportunity to test different formats of events (workshop, conference and festival) and to understand which format is more suitable for reaching out to specific communities and objectives
- It is an opportunity to bring different actors to work together and poses the basis for future collaborations. Furthermore, it allows them to attract international participants and thus foster exchanges between local and global initiatives

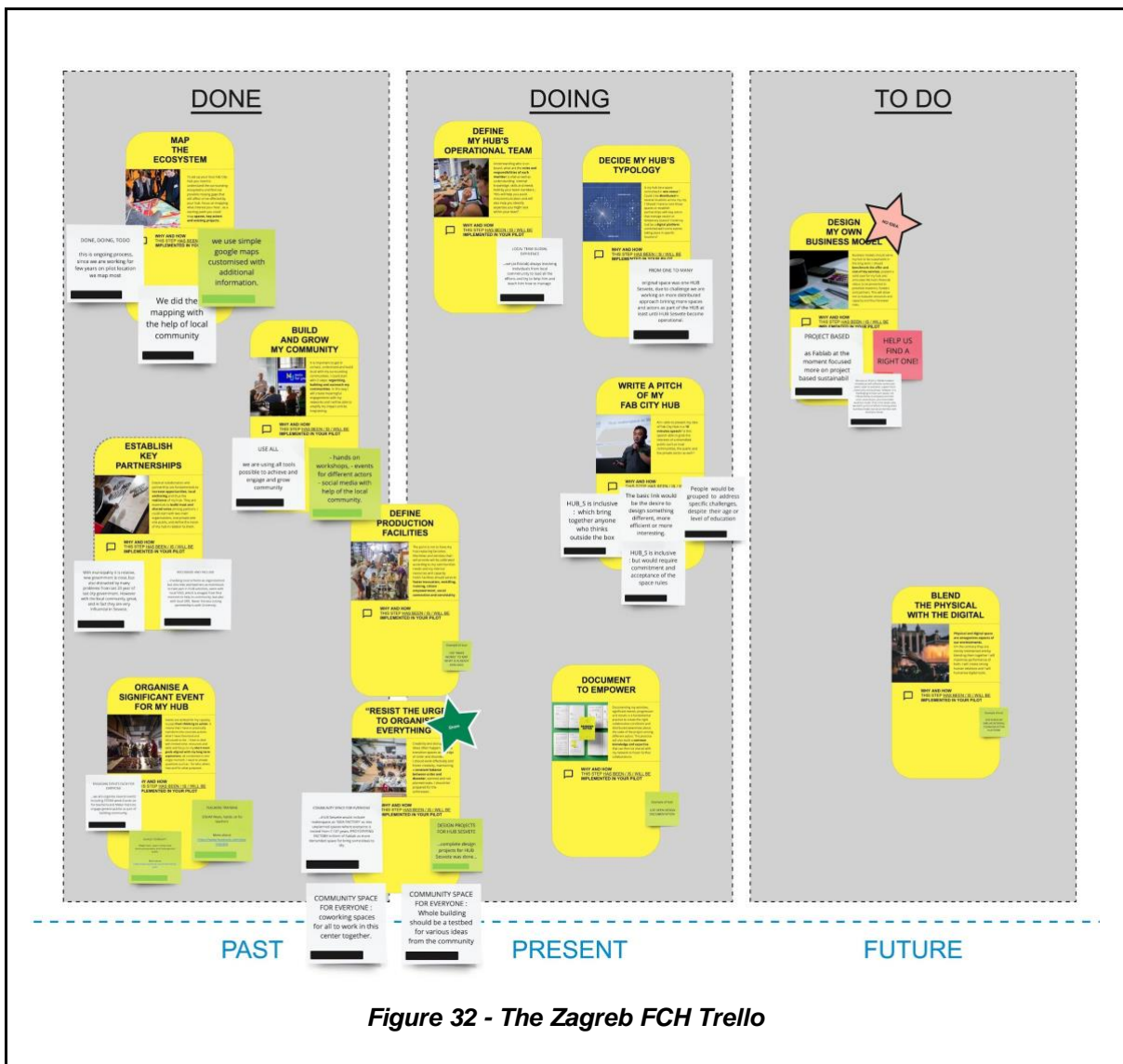


Figure 32 - The Zagreb FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop



### 5.2.7 Roadmap to Tallinn’s Fab City Hub



**Figure 33 - Kopli93 outdoor garden space**

<b>Name &amp; Location:</b>	<b>Kopli 93 - Kopli Peninsula</b>
<b>Web address(s):</b>	<a href="https://www.facebook.com/Kopli93">https://www.facebook.com/Kopli93</a>
<b>Project Partners</b>	Tallinn University of Technology, City of Tallinn
<b>Status:</b>	The space is open, and they are running activities
<b>Typology &amp; Spatial Strategy:</b>	One centralised single building and an outdoor gardening/farming space
<b>Key Stakeholders:</b>	Centre of Sustainable Renovation, Kopli vocational school, SRIK, Põhjala Factory, Ilma Shop, Velomarket, Botanic Garden, Fab City Foundation

#### Current state of the Tallinn model of Fab City Hub

Tallinn’s overarching mission and its vision for a local FCH is to give birth to an inclusive community of makers, sustainable urban farmers and residents by reactivating the formerly abandoned Kopli93 building, through the organisation of workshops, festivals and vocational training with a focus on food culture, circular economy and heritage.

Kopli 93 was an old Cultural Centre of the Kopli Peninsula closed to the public for years. During this first sprint, the local team, initially composed of only three people, managed to organise a series of events that was aiming to reach out and progressively engage a diverse set of stakeholders: from residents and a vocational school to local food producers and makers. These groups of engaged people will constitute the active community of their FCH.



As reported in the 4.2 Collective Results Sprint 1 ([Wippoo, M. et al., 2021](#)), the Tallinn team organised a total of 21 events. Through these events, the core team had the possibility to test different event formats, reach out to different communities and strengthen the mutual collaboration among the core team, the local communities, and future stakeholders.

It is interesting to notice that, by exploring different formats of events from the **online webinar** (The Permaculture Webinar), to **kick-off events** (Kopli93 Kick-off event), **recurring weekly meetings** (Working Wednesday) and the organisation of an **international festival** (Cosmolocal Festival) the Tallinn Pilot team was able to tackle some of the challenges that organisations face in setting up creative and productive hubs.

By analysing the insights linked to these events, shared by the Tallin team during the '*Building the FCH Toolkit*' workshop and thoroughly described in 4.2 Collective Results Sprint 1, it is possible to understand how these events are fundamental steps to undertake toward the setting up of local FCHs and, in this way, to extract key lessons to serve as inspiration for other pilot cities toward the same effort.

During the first sprint a **kick-off event for Kopli 93** was organised by the core team and with the collaboration of residents and future stakeholders. The event was a successful step for the FCH and contributed to achieving a series of results:

- The reactivation of the physical space and the start of a collaborative and co-constructed project for the outdoors gardening space
- The CENTRINNO project and strategies were shared among participants and confronted with memories and expectations of local people in respect to the Kopli93 building
- The encounter and engagement of future stakeholders
- The interest of local media that shared the event through newspapers and TV channels

Furthermore, as a continuation of the kick-off event's success, the local team started organising small recurring meetings, the **Working Wednesday**. These moments were also used to co-construct the common outdoor areas for community gardening. These recurring meetings allowed them to:

- build and grow the local community and better know their needs and expectations
- transfer new practical skills and strengthen the engagement of the local community through the co-construction of a common space. "There is no active community member at Kopli 93 who does not know how to smoothly operate the basic electrical tools such as electrical drill and circular saw" ([Wippoo, M. et al., 2021, p. 78](#))

Two important lessons from the Tallin team are worth sharing in this report for the sake of this research. They confirm the relevance of some of the suggested step-cards of the '*Building the FCH Toolkit*' workshop:

Being prepared for the unforeseen is a key attitude to set up an inclusive and innovative hub. Creativity and innovative solutions emerge often from those interstitial moments and spaces between order and disorder. Therefore, while setting up a FCH, to be prepared for the unforeseen, proposed by the Step-Card '*Resist to the urge of organising everything*'.

This is confirmed by the following reflections ([Wippoo, M. et al., 2021, p.80](#))

- "We have to create more space for the community to take action. If everything is perfectly planned for the people, they will feel that they would have no impact on anything. If we try less, then the community tries harder"
- "Many things happened unexpectedly that we can now integrate into the plans for future sprints"

- “The first sprint was spontaneous and sometimes even a little bit chaotic “.
2. Set up a precisely targeted, flexible and multi-channel communication strategy is fundamental for setting up a hub that aims to be inclusive, reach out to local and global scale audiences and create ownership among its members, as recalled by the FCH Step-Cards ‘Blend the physical with the digital’ and ‘Document to empower’.

This is confirmed by the words shared by the Tallin team ([Wippoo, M. et al., 2021, p.80](#)) :

- “We have been very versatile when it comes to choosing communication channels “
- “To make the community actions align with Kopli 93 and CENTRINNO, we have to become more precise in whom we are targeting with our communication strategy”
- The success of the Permaculture Webinar and the way they have shared this material

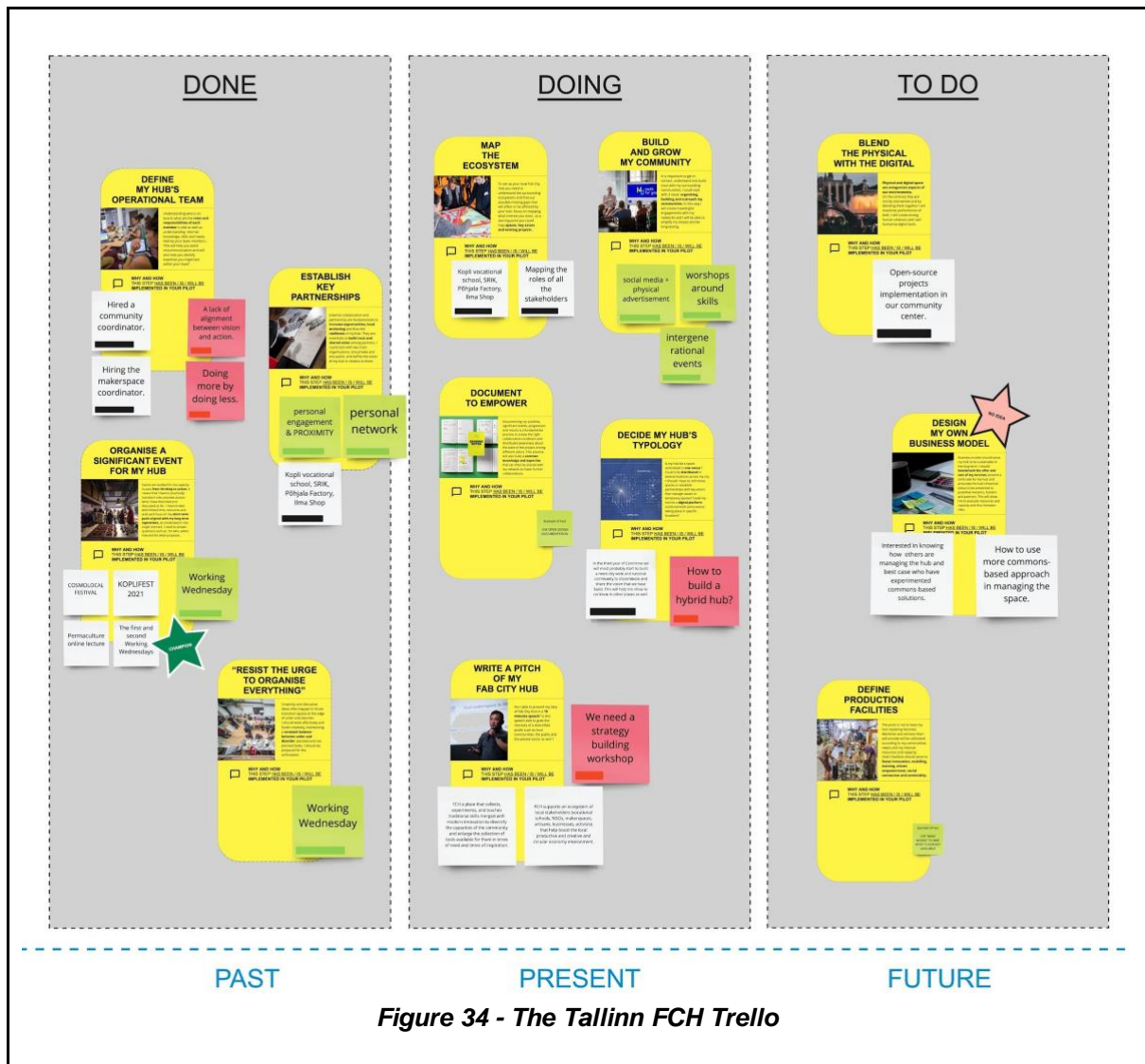


Figure 34 - The Tallinn FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.8 Roadmap to Geneva's Fab City Hub



*Figure 35 - La MaCo outdoor communal spaces*

<b>Name &amp; Location:</b>	<b>La MaCo</b> (Manufacture Collaborative), Zone Industrielle de Charmille (ZIC)
<b>Web address(s):</b>	<a href="https://lamaco.ch/en/events-en">https://lamaco.ch/en/events-en</a>
<b>Project Partners:</b>	<b>Onl'fait</b> - Fab Lab, <b>Resources Urbaine Coopérative</b> - cooperative working on affordable spaces for cultural production, <b>Au fil du Geste</b> - textile lab for professional insertion and general public

<b>Status:</b>	The space is open, and they are running activities
<b>Typology &amp; Spatial Strategy:</b>	One single industrial building within a larger industrial area, centralised
<b>Key Stakeholders:</b>	Geneva Municipality, Canton Geneva, ZIC actors, FTI (Fondation de terrains industriels de Genève), ZIG (Sociétés Industrielles de Genève)

### Current state of the Geneva model of Fab City Hub

The Geneva Pilot team, differently from other Pilot cities, was established previously to CENTRINNO in a space called la Maco. The Manufacture Collaborative (MACO) is an industrial historical classified building inside a larger industrial area of 22000 m2 called the Zone Industrielle de Charmilles (ZIC). This building hosts a series of associations, with different organisational structures and objectives but all focusing on crafts production and promoting circular economy production. The Municipality of Geneva is the owner of the space, and they have a contract free of charge for the next 5 years.

One of the main objectives of the Geneva CENTRINNO team is to enhance the creation of an inclusive and productive FCH able to meet and align the interests and needs of different actors and structures included in this area. Their local FCH aims to be a space and a network that will offer support and training for maker communities, unemployed individuals focusing on craftsmanship value, woodwork and textile, adopting a circular approach. During this first sprint, they have worked on a series of actions to facilitate the development of a common plan between the interests and future plan of the municipality, the 7 associations of craftsmanship that form the MACO, the ZIC local actors, and also the general public of the surrounding neighbourhoods.

The actions that helped the Geneva pilot to work on a shared idea of FCH with key stakeholders were:

- **Bi-weekly internal meetings** to align CENTRINNO's objectives and KPIs to present to relevant stakeholders.
- Several **meetings with the municipality** to formalise and align their objectives and their mutual collaboration.
- **A public inauguration event** at MACO to present the association, CENTRINNO's objectives and the hub itself, open to the general public for visits, activity participation, interviews, and media.
- A series of **participatory workshops** with ZIC actors to align and work on common challenges and projects.

### Focus-Box

#### **Collaborative workshop series and concrete project development**

*During this first sprint, the Geneva Pilot organised and facilitated **4 collaborative workshops** among the different actors that are part of the ZIC, Zone Industrielle de Charmille. This was the opportunity to present the MACO association, the CENTRINNO Project and its general and specific objectives, as well as the opportunity to launch a collaborative project among all actors for the layout and the use of the common areas of the ZIC.*

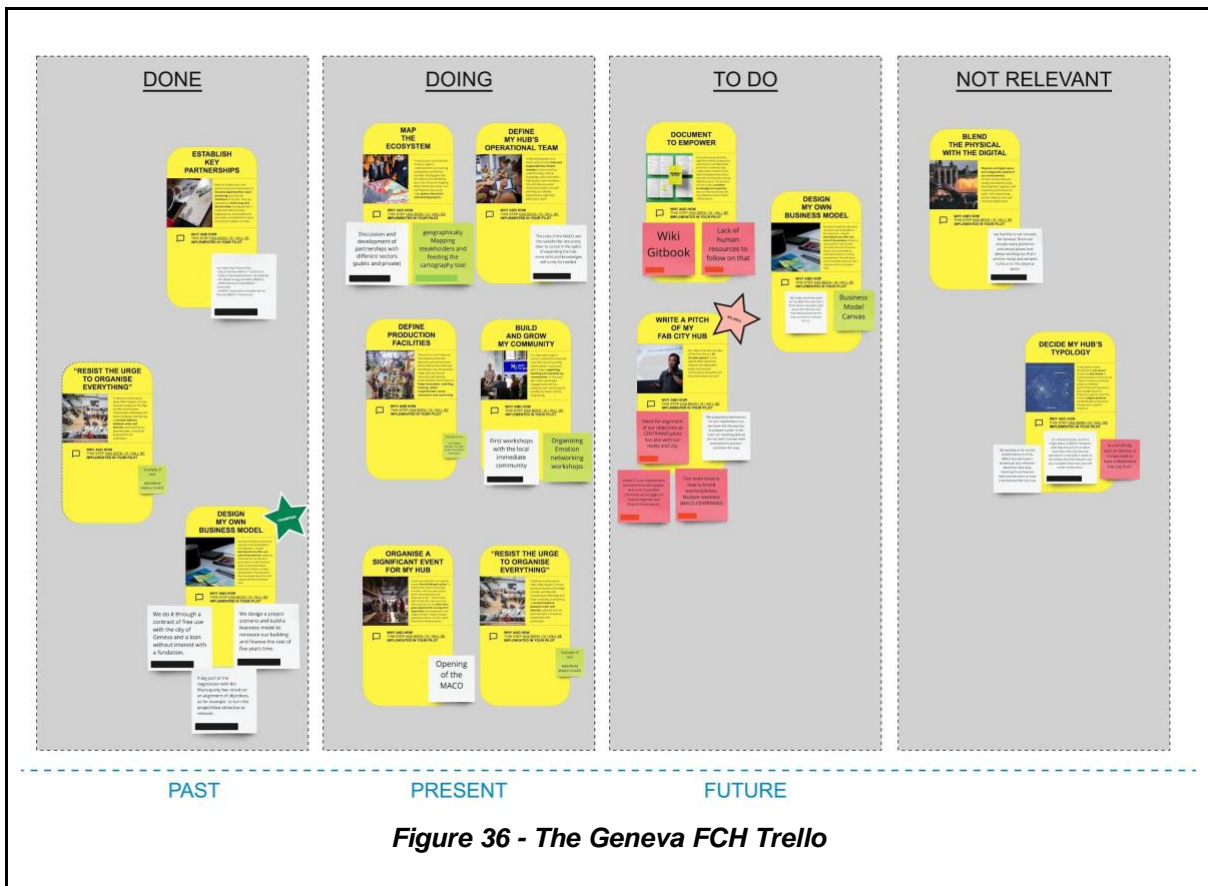
*Through presentations, round table discussions and co-creation sessions the team managed to bring different actors on board to build something that is common and meaningful for the whole area, la ZIC. They also obtained funding from the municipality to build the project. Now they have a common shared space that can be used by the whole site.*



Future steps aim to design and realise a second gathering space opening up the co-creation process to the neighbourhood. The idea is to include common gathering spaces such as a local cafeteria, open space for ephemeral events and a common vegetable garden.

It is worth noticing that **the launch of a concrete project** is an effective method to achieve broader objectives. The project of designing and building the common outdoor spaces allowed to:

- gather different types of communities
- obtain the involvement of public authorities and their financial support
- align on common objectives and develop a sense of ownership to a place.



Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

### 5.2.9 Roadmap to Blönduós' Fab City Hub



*Figure 37 - Blönduós Textile lab view*

<b>Name &amp; Location:</b>	<b>Textile Lab &amp; Textile Centre</b> - located in the town and municipality of Blönduós, the Northwestern Region of Iceland
<b>Web address(s):</b>	-
<b>Project Partners</b>	University of Iceland (HÍ), Icelandic Textile Centre
<b>Status:</b>	The space is open May 2021, and they are running activities
<b>Typology &amp; Spatial strategy:</b>	One single building, centralised
<b>Key Stakeholders:</b>	Ístex wool factory, Iceland Innovation Centre, vocational schools, local educational institutions

#### Current state of the Blönduós model of Fab City Hub

The Blönduós Pilot team local model of FCH aims to develop the Textile Lab, together with the Textile Centre, as a dynamic hub for makers, innovators, entrepreneurs, students, researchers and artists. They intend to foster a place for learning, experimenting, innovating and connecting with a focus on sustainability and circular economy, capable of enhancing cross-pollination between traditional handcrafts and digital technology.



During this first sprint they have been involved in many different activities and events that allowed them to tackle most of the objectives they had and to reach out key stakeholders for the development of their vision for an FCH.

Sprint 1 marked the formal opening of the hub, the TextileLab, in May 2021 with one day on-site event and equipment presentation, broadcasted via their Facebook channel. Key stakeholders, elected representatives, members of the community, and governmental authorities (Minister of Education and Culture, the Minister of Industry, Tourism and Innovation) were reached thanks to previous communication and engagement actions, facilitated by the small size of the country itself. "*In Iceland*"- according to the words of one of the team - "*it is easy to get in contact with national actors*".

This kick-off event was an important milestone to give space and shape their idea of local FCH for textile innovation, to gain national visibility and credibility, and to raise awareness regarding the project and its core values.

Covid restrictions were a brake to further activities and stakeholders' engagement. They were also a big opportunity for the team to practice working digitally and efficiently with an international team and to learn more about online tools.

This unforeseen context makes them aware of the importance of blending their physical space with the digital one to expand the Hub influence. Furthermore, the organisation of events and the establishment of collaboration with national and international actors increase their capacity to connect and open up their hub to larger communities, nationally and globally, overcoming their rural and isolated environment.

Examples of this are:

- collaboration with Fab Lab Reykjavík and events organisation (Design March and Ullarthon award ceremony) in the capital, which contributed to emphasise the hub at national and international level
- international textile artists in residence that could bring international experts and artists to the hub and open to future collaboration and exchanges

During the '*Building the FCH Toolkit*' workshop in Amsterdam, the Blönduós team clearly expressed the need to be supported in two main fundamental steps:

- to set up an appropriate digital strategy for their hub at expertise and funds level
- to design a sustainable business model for their hub beyond CENTRINNO

These two needs led to the emergence of the fact that, in order to be resilient and sustainable, rural hubs should try to expand their actions and connections beyond their walls and their local context. Blending their physical space with the digital one will allow to maximise performance of both. In the case of Blönduós, having a strong digital presence will allow them to connect with international actors and knowledge that could enrich their hub, but also to disseminate their experience among other hubs globally.

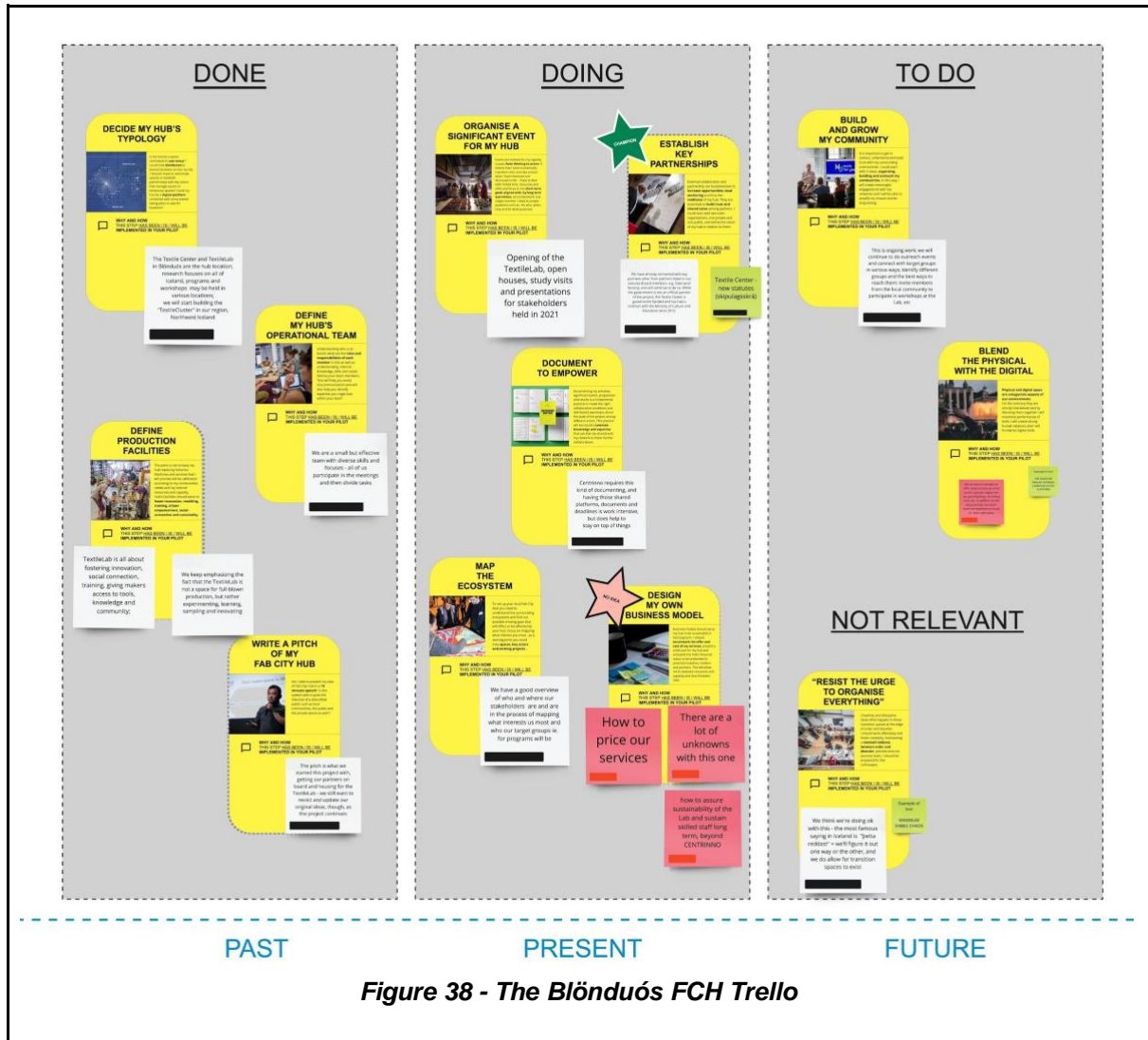


Figure 38 - The Blönduós FCH Trello

Find [here the link](#) to the Miro board used during the 'Building the FCH Toolkit' workshop

## 6. CONCLUSION AND NEXT STEPS

Supporting and documenting the emergence and evolution of innovative typologies of FCHs is one of the main challenges of CENTRINNO as well as the final goal of Pilot cities throughout their experimentation process. The FCH Toolkit aims to embrace this complex challenge and this Alpha version sets the basis of a practical support and a guiding resource throughout this process.

For this reason, this first version focuses on the conceptual approach presenting, through the Ways of Navigating, a solid and flexible infrastructure capable of responding to the multiple and diversified needs of Pilots, to evolve according to their ongoing process and thus to continue its mission after the CENTRINNO lifespan.

The next steps and actions within WP3 will be designed to progressively increase the Pilots' involvement into the co-design of the Toolkit. The last chapter (5) of this deliverable aims to go in that direction, capturing Pilots' insights in order to improve and adapt the FCH Roadmap as well as the collection of tools according to their needs and experiences.

The evolution of the Toolkit into an on-line platform is an important step to achieve strong contributions to the Toolkit, to foster connections and exchanges amongst Pilots while increasing their capacity to work as a network of locally productive hubs. The first step towards that end will be achieved, in the next months, by testing collaborative communication channels among Pilots in collaboration with another European Project, Interfacer.

## REFERENCES

- [1] Amato, D.; Kalathas, G.; Vlachopoulou, C.; Cingolani, F.; Fontana Valenti, C.; Kühr, W.; Armstrong, K.; Diez, T.; Guy, J.C.; Munoz Unceta, P.; Brouwer, N.; Ritter, F. (2021) *Creative and productive hubs journal*. Deliverable D3.1 CENTRINNO Project.
- [2] CENTRINNO project (2020) CENTRINNO Whitepaper. Available at: [https://CENTRINNO.eu/wp-content/uploads/2021/02/CENTRINNO\\_WHITEPAPER\\_2.0\\_EUproject.pdf](https://CENTRINNO.eu/wp-content/uploads/2021/02/CENTRINNO_WHITEPAPER_2.0_EUproject.pdf)
- [3] Chen, W. et al. (Eds.) (2017). Proceedings of the 25th International Conference on Computers in Education. New Zealand: Asia-Pacific Society for Computers in Education. Retrieved 23 January 2022, from [:https://apsce.net/icce/icce2017/140.115.135.84/icce/icce2017/sites/default/files/proceedings/main/C2/A%20Toolkit%20for%20Action%20Translating%20Theory%20into%20Practice.pdf](https://apsce.net/icce/icce2017/140.115.135.84/icce/icce2017/sites/default/files/proceedings/main/C2/A%20Toolkit%20for%20Action%20Translating%20Theory%20into%20Practice.pdf)
- [4] Diez, T. (ed.) (2020) *Fab City: The Mass Distribution of (almost) Everything*. Barcelona: Iaac, Fab Lab Barcelona and Fab City Global Initiative.
- [5] Diez, T. (2021) "Fab City Strategic Action Plan". Conference paper at Fab City Summit 2021. Montreal.
- [6] Frosini, V., Borchì, R., Martelloni, L., Pazaitis, A., Juárez, M., Muñoz Unceta, P. (2021) *REFLOW Collaborative Governance Toolkit (RCGT) v1.0*. Deliverable 4.3 of the Reflow Project. Not published.
- [7] Muñoz Unceta, P., Ingemann Henriksen, A., Nielsen S., Schulze C. (2021) *CENTRINNO Framework*. Deliverable D1.2 CENTRINNO Project
- [8] REFLOW (2021) *Reflow Collaborative Governance Toolkit*. Online website. <https://governance.reflowproject.eu/> Accessed 17/01/2021
- [9] (a) Wippoo, M., Hoekstra, N., van Dijk, D., Muñoz Unceta, P., Guy, J., Ritter, F., Even-Zohar, J., Dibbits, H., Becker, C., and Olivotto, C. (2021) *Detailed Pilot Planning & Monitoring Framework*. Deliverable D4.1 CENTRINNO Project (confidential).
- [10] Meia Wippoo (WAAG), Nienke Hoekstra (WAAG), Pablo Muñoz Unceta (IAAC), Jessica Guy (IAAC), Frenzi Ritter (META), Jonathan Even-Zohar (AHK), Hester Dibbits (AHK), Carolina Becker (ONF), Cristina Olivotto (ONF), Pilot partners (Paris, Milan, Barcelona, Amsterdam, Copenhagen, Zagreb, Tallinn, Geneva, Blönduós) (2021) *D4.2 Collective Results Sprint 1* CENTRINNO Project

## ON-LINE REFERENCES

- 1) Making Sense (2018) *Citizen Sensing. A toolkit.*  
<https://drive.google.com/file/d/10F8Htjdm0DZYFDXZ8122RzbFF34ivhr/view>  
Accessed 17/01/2021
- 2) Reflow (2021) *Reflow Collaborative Governance Toolkit.* Online website.  
<https://governance.reflowproject.eu/> Accessed 17/01/2021

## DELIVERABLE 3.2

# ANNEX

## FAB CITY HUB TOOLKIT - COLLECTION OF TOOLS





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## Introduction

This Annex presents a selection of tools, methods and activities that are relevant to the FCH Toolkit. The objective is to constitute, together with the ‘first selection of tools and resources’ reported in the CENTRINNO framework ([Muñoz Unceta, P. et al., 2021](#)), a selection of useful resources to sustain Pilots in their implementation process toward FCHs. This selection will evolve during the project according to the Pilots’ feedback by using these tools as well as by adding tools they will be using.

Volumes have coordinated the selection process involving some partners within CENTRINNO to select the most appropriate tools from a series of available resources:

- relevant previous toolkits developed outside CENTRINNO
- Key concept owners who are working on specific resources developed within CENTRINNO, namely the CENTRINNO School, the CENTRINNO Cartography and the Living Archive.

Each tool has been selected and analysed following the same template, structured as follows:

**A title:** indicate the name of the resources

**Type of Resources:** indicate the type of the resources. It could be a tool, a method, an activity etc

**A picture:** when available and relevant

**External link:** a sharable link directing to the original resource or to the template

**Description:** an explanatory part describing why and how the selected resource could be useful for CENTRINNO Pilot cities

**A table:** containing some field to classify tools according to:

- **Characteristic:** (Difficulty, Duration, Facilitator/Participants, Setting and Contact). These fields are the same used in the ‘first selection of tools and resources’ ([Muñoz Unceta, P. et al., 2021](#)) in order to have a coherent baseline of data. Each tool has also been tagged according to one or multiple tagging referring to the 5 key concepts.
- **Tagging System:** for this first Alpha version of the Toolkit, tools have been classified according to their relevance to one or more among the 5 key concepts. An additional set of tags has been added and it will be taken into consideration in next iterations. Some of the partners have already suggested some possible tags.

## Template

**TITLE:** [enter the name](#)  
**Type of Resource:** [method, tool, activity](#)

IMAGE HERE

**Share a link:**

[Please share a link to the suggested tool](#)

**What is about and why is relevant for CENTRINNO:**

[Please explain in a few lines the selected tool and why the tool could be useful for Centrinno and Pilot Cities](#)

[please provide enough information to understand why, how, and when I can use this tool](#)

**Characteristic**

Difficulty	<a href="#">Choose1: Easy - Medium - Difficult</a>
Duration	<a href="#">Indicate time if relevant</a>
Facilitator   Participants	<a href="#">Indicate the number of F and P if relevant</a>

Setting	Choose1: Online/Offline
Contact	Indicate the point of contact for having more infos about this tool
<b>Tagging System</b>	
Key concepts	Choose1 or more among ( by order of importance) : Inclusion, Circularity, Heritage, Vocational training, Innovation space
<b>Additional Tagging System</b>	
Action Areas	Choose1 or more among ( by order of importance) : Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose1 or more among ( by order of importance) : State, community, market, 3d Sector
Working Scale	Choose1 or more among ( by order of importance) : Building/Area site, Neighborhood, City, Territory, Global/Local



## 1.Tools from previous resources

### 1.1Tools from The Creative Hub Kit

#### Finding your Champions

Research Activity

##### Share a link:

[http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf) (p.17)

##### What is about and why is relevant for CENTRINNO:

Forming a hub steering group can be a powerful way to provide advocacy and support to your hub and network. The group should include committed individuals who have a variety of different skill sets and backgrounds. These champions and advocates for the sector can also bring and embed opportunities, sponsorship and resources back into the hub and enhance the energy that flows through a hub from start-up to growth. They can be the building blocks between industry and policy, so keep them close and informed.

Pilot cities in CENTRINNO can benefit from selected ‘champions’ who would help them bridge their communities (professionals, audiences, learners etc) with local industries, institutions and policy makers.

This research needs to be done at an early stage of a hub, during the community-building phase. It is important to nurture the relationship with ‘the champions’ continuously.

Characteristic	
Difficulty	<b>Medium</b>
Duration	<b>Ongoing</b>
Facilitator   Participants	<b>F: hub’s managers</b>
Setting	<b>Online and Offline</b>
Contact	<a href="mailto:davideamato3@gmail.com">davideamato3@gmail.com</a> <a href="mailto:bios@bios.gr">bios@bios.gr</a>
Tagging System	
Key concepts	<b>Social Inclusion, Vocational training, Innovation space</b>

<b>Additional Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance) : Building/Area site, Neighborhood, City, Territory, Global/Local

## Tracking the Benefits

### Method

**Share a link :**

[http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf) ( p.40)

**What is about and why is relevant for CENTRINNO:**

CENTRINNO’s Pilots can communicate the social, cultural and economic impacts that their hub generates for the city and any partners, such as Universities, local municipalities, corporates, charities and EU funders.

Data you could collect to evidence the impact of your hub could include measuring the number of people who have engaged with the hub; the benefits they have gained – such as new work contracts, or social impacts for the community; the numbers of events and activities you have organised; photos of networking sessions; stories from your social media engagement; and case studies detailing individuals/businesses. Events can be valuable to collect feedback in fun, interesting and low-cost ways – helping you capture the softer impacts, which can’t be recorded by any precise measurement. It is valuable to build in regular blocks of time for the core team to work on reviewing, planning and strategy development – this will keep you on the front foot and also make sure your team and community are connected into the bigger strategic picture.

Characteristic	
Difficulty	<b>Easy</b>
Duration	<b>Yearly</b>
Facilitator   Participants	<b>F: hub’s managers   P: hub’s members</b>
Setting	<b>Online and Offline</b>
Contact	<a href="mailto:davideamato3@gmail.com">davideamato3@gmail.com</a> <a href="mailto:bios@bios.gr">bios@bios.gr</a>
Tagging System	
Key concepts	<b>Innovation space</b>
Additional Tagging System	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance) : Building/Area site, Neighborhood, City, Territory, Global/Local

## Designing with and for the Community

### Activity

**Share a link:**

[http://creativehubs.net/uploads/Creative\\_HubKit.pdf](http://creativehubs.net/uploads/Creative_HubKit.pdf) (p.23)

**What is about and why is relevant for CENTRINNO:**

Creating the best possible culture and working environment through careful curation is crucial, as when the mix of tenants is imbalanced it can be detrimental to all hub members – you need to select the ingredients carefully for it to succeed. Hubs work well when all contributors have an equal stake in their development, so do this in partnership with others – creatives, potential partners, city officials – to enable you to develop the collective offer.

Establish terms and conditions with your network, to ensure everyone understands what is expected of them and what they can expect from the hub. Offer a programme of regular events to make sure that your community keeps connected and this can act as a mechanism to introduce new potential members to your hub through word-of-mouth recommendations. Remember that people who leave your hub will remain alumni forever; therefore, maintaining relationships with previous network members in a light-touch way can give you a way of researching and gaining feedback on new ideas and can encourage them to share your upcoming activities with their extended networks.

CENTRINNO’s Pilots could benefit from a highly curated environment, which is shaped around the community’s needs and contributions. This will also help create a stronger network outside the hub’s walls and into the broader industry.

Characteristic	
Difficulty	<b>Difficult</b>
Duration	<b>ongoing</b>
Facilitator   Participants	<b>F: hub’s managers   P: hub’s community</b>
Setting	<b>Online and Offline</b>
Contact	<a href="mailto:davideamato3@gmail.com">davideamato3@gmail.com</a> <a href="mailto:bios@bios.gr">bios@bios.gr</a>
Tagging System	
Key concepts	<b>Social Inclusion</b>
Additional Tagging System	

Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among by order of importance): Building/Area site, Neighborhood, City, Territory, Global/Local

## 1.2 Tools from the Reflow Collaborative Governance Toolkit

### Circular Challenges and Opportunities



**Figure 1 - Circular Challenges & Opportunities**

**Share a link:**

<https://governance.reflowproject.eu/toolbox/circular-challenges-opportunities>

**What is about and why is relevant for CENTRINNO:**

This tool is meant to be used at the beginning of the transition journey to the circular economy to scope and prioritize challenges that a city or an organization would tackle. Compared to other scoping charts and templates, such as SWOT analysis, this canvas can be used to map challenges and opportunities on different layers simultaneously, connecting them across different scales (international, city, project) and with different actors (governments, social business, communities, etc.).

In CENTRINNO this tool may be used to select a specific challenge to be tackled in the FCH. In any collaborative task, it is always important to define feasible goals and map how they will be addressed. In the case of FCHs, challenges on the neighbourhood scale might be a good starting point to engage with other local actors. In combination with other tools, such as the Stakeholders<sup>1</sup> or Mapping<sup>2</sup> tools in the CCN, the Circular Challenges and Opportunities canvas can analyse which resources within the local hub network are available to work on a

<sup>1</sup> <https://ccn.waag.org/navigator/theme/stakeholders>

<sup>2</sup> <https://ccn.waag.org/navigator/theme/mapping>

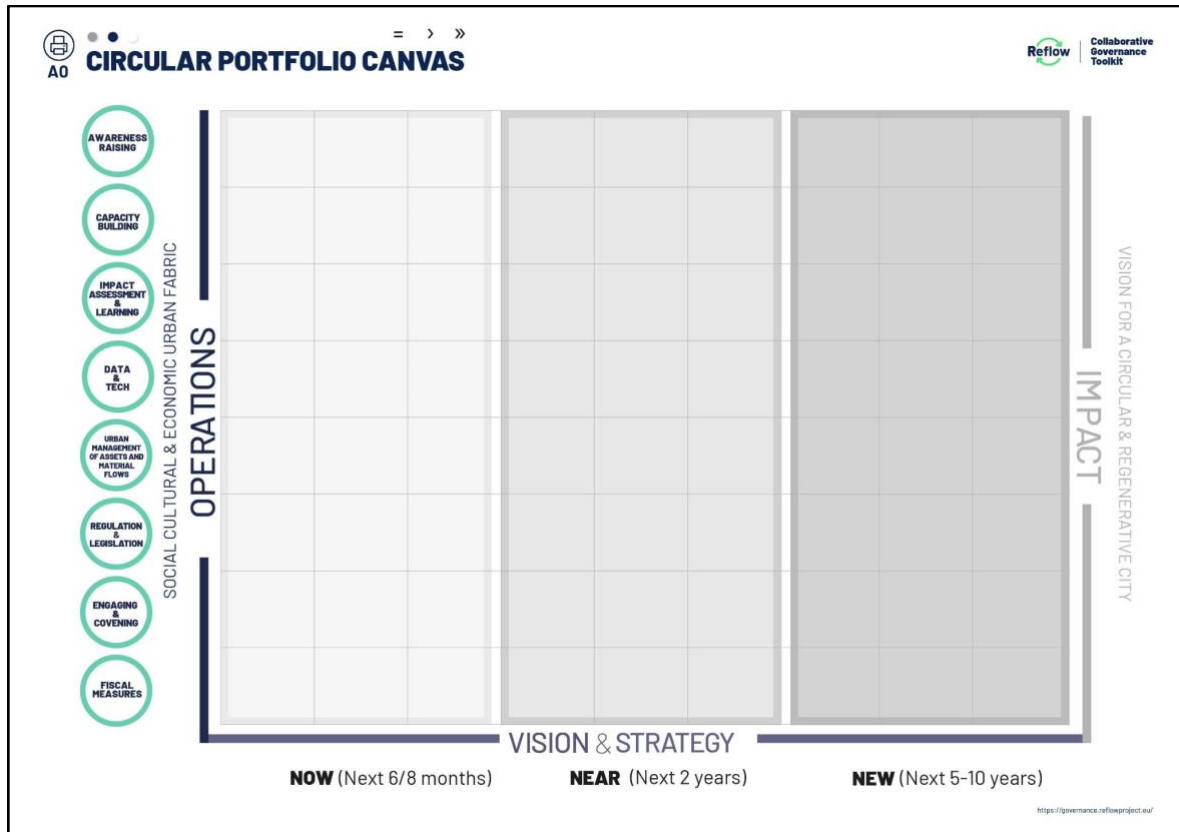


specific challenge, and how these resources can be connected to opportunities in policy, programs or projects at different scales.

<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>1 - 2 h</b>
Facilitator   Participants	<b>F: 1   P: 2-8</b>
Setting	<b>Online/Offline</b>
Contact	<a href="https://governance.reflowproject.eu/">https://governance.reflowproject.eu/</a> and <a href="https://www.p2plab.gr/en/">https://www.p2plab.gr/en/</a>
<b>Tagging System</b>	
Key concepts	<b>Circular Economy, Social Inclusion</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, <b>Co-creating for FCH</b> , Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): <b>State, community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighbourhood, City, Territory, Global/Local</b>

## Circular Portfolio Canvas

Tool



**Figure 2 - Circular Portfolio Canvas**

**Share a link:**

<https://governance.reflowproject.eu/toolbox/circular-portfolio-canvas>

**What is about and why is relevant for CENTRINNO:**

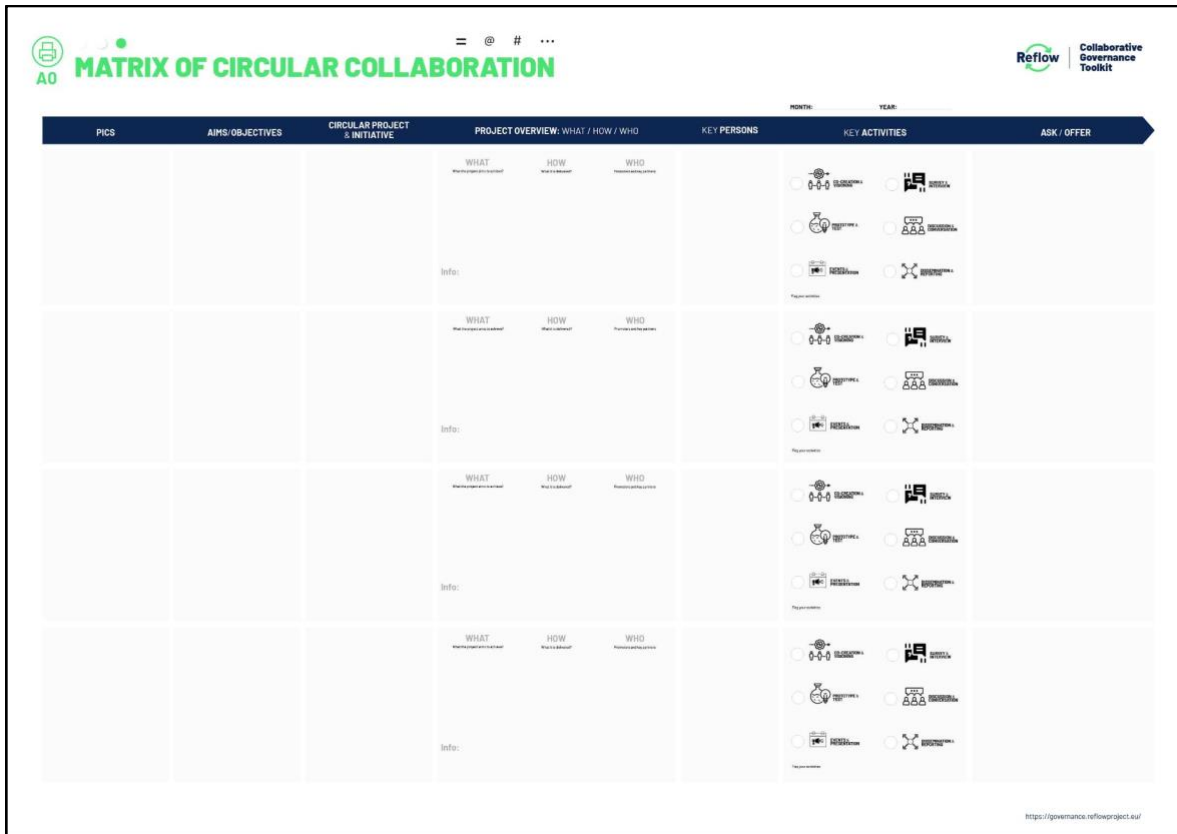
Any deep transformation process requires a systemic understanding of reality. Individual activities are always intertwined and affected by wider processes. The circular portfolio canvas supports organisations and teams who want to make sense of their initiatives and the role they have in a wider complex system. It would support them defining and adjusting a path that makes the most of pooling existing or needed resources.

FCHs could use this tool to organize, visualise and inquire their activities from different projects and initiatives and check them against their broader objectives and the wider context. This tool can be used as a 'checkpoint' as many times as needed to detect gaps and make existing plans richer and systemic. It is especially relevant for circular economy-related activities, but it could be expanded to any sort of action.

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	<b>1h 30' - 2h</b> (it may be iterated with different actors in several sessions)
Facilitator   Participants	<b>F: 1-2   P 2-8</b>
Setting	<b>Online and Offline</b>
Contact	<a href="https://governance.reflowproject.eu/">https://governance.reflowproject.eu/</a> and <a href="https://www.p2plab.gr/en/">https://www.p2plab.gr/en/</a>
<b>Tagging System</b>	
Key concepts	<b>Circular Economy, Social Inclusion</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, <b>Co-creating for FCH</b> , Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, <b>3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighbourhood, City, Territory</b> , Global/Local

## Matrix of Circular Collaboration

Tool



**Figure 3 - Matrix of Circular Collaboration**

**Share a link:**

<https://governance.reflowproject.eu/toolbox/matrix-of-circular-collaboration>

**What is about and why is relevant for CENTRINNO:**

There may be many different activities and initiatives taking place in the cities and neighbourhoods where FCHs are developed. Missing opportunities or running in parallel those activities is a very likely thing to happen to teams and organisations deploying a FCH. The Matrix of Circular Collaboration helps to keep track of different circular economy initiatives and to draw connections between the outputs and needs from those activities and the ones a local team may be implementing in a FCH. This tool can be used as a recurrent asynchronous task that would run throughout the life of an organisation’s initiative.

Characteristic	
Difficulty	<b>Easy</b>
Duration	<b>Not relevant</b> (asynchronous work)
Facilitator   Participants	<b>Not relevant</b>

Setting	<b>Online</b>
Contact	<a href="https://governance.reflowproject.eu/">https://governance.reflowproject.eu/</a> and <a href="https://www.p2plab.gr/en/">https://www.p2plab.gr/en/</a>
<b>Tagging System</b>	
Key concepts	<b>Circular Economy, Social Inclusion, Innovation Spaces</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): <b>Mapping for FCH</b> , Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): <b>State, community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): <b>Building/Area site, Neighbourhood, City</b> , Territory, Global/Local

## 1.3 Tools from The Citizen Sensing Toolkit

### Sensing Strategies Canvas

Tool



**Figure 4 - Sensing Strategy Canvas**

**Share a link:**

<https://drive.google.com/file/d/10F8Htidmm0DZYFDXZ8122RzbFF34ivhr/view> (p. 62)

**What is about and why is relevant for CENTRINNO:**

The Sensing Strategy Canvas is used to define what, when how and by whom something should be measured. It “helps communities to co-create plans for deploying their sensors and capturing data. It blends expert knowledge with community engagement in critical decision-making processes, thus encouraging commitment. The first stage of the tool involves discussing options with experts in the field, generating consensus on which plans are not only valid, but achievable, given the resources at hand. The canvas then moves on to a stage of planning out the sensing effort (where to position sensors, how the data is collected, how often, and so on”

As part of the Citizen Sensing Toolkit, this tool is part of a wider framework for citizen sensing projects. It is suggested to read the tool’s information in this context so FCHs and the communities running them can understand better when and how to implement it. This particular step in the process (developing a sensing strategy) might be useful in the CENTRINNO approach to co-create the hub’s narrative in relation to its surrounding environment, backing it up with data gathered and managed by the hub’s community.



<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>2 hours</b>
Facilitator   Participants	<b>F: 1-2   P: 4-10</b>
Setting	<b>Offline</b>
Contact	<a href="http://making-sense.eu/">http://making-sense.eu/</a> (IAAC and Waag)
<b>Tagging System</b>	
Key concepts	<b>Innovation Spaces</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, <b>Co-creating for FCH</b> , Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community</b> , market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighbourhood</b> , City, Territory, Global/Local

## Open Hardware

### Tool



*Figure 5 - Smart Citizen Open Hardware*

**Share a link :**

<https://drive.google.com/file/d/10F8Htjdm0DZYFDXZ8122RzbFF34ivhr/view> (p. 92)

**What is about and why is relevant for CENTRINNO:**

Key to any citizen sensing initiative or experiment is to define what technology is most suited to measure what it is needed to know. Usually, commercially available sensors are expensive and cannot be adjusted. Open hardware has available device blueprints open to download and adapt to the initiative's needs, but this would require some technical knowledge and expertise. There could be someone from the FCH's community who has this knowledge, or it could often be found in Fab Labs or makerspaces, being a good excuse to approach and engage with them.

As part of the Citizen Sensing Toolkit, this tool is part of a wider framework for citizen sensing projects. It is suggested to read the tool's information in this context so FCHs and the communities running them can understand better when and how to implement it. This particular step in the process (choosing a specific type of Open Hardware) might be useful in the CENTRINNO approach to run experiments on data gathering and management that align with some of the Hub's objectives. The experiments could be even part of the implementation strategy of the hub. Deploying sensors around the neighbourhood linked to other stakeholders and organisations' spaces could contribute to the deployment of a distributed hub.

<b>Characteristic</b>	
Difficulty	<b>Difficult</b>
Duration	<b>Several weeks to several months</b> , depending on design
Facilitator   Participants	Not Relevant
Setting	<b>Offline</b>
Contact	<a href="http://making-sense.eu/">http://making-sense.eu/</a> (IAAC and Waag)
<b>Tagging System</b>	
Key concepts	<b>Innovation Spaces, Vocational Training</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <b>Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, <b>3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/ <b>Area site, Neighbourhood</b> , City, Territory, Global/Local

## Legacy Storylines

Tool



**Figure 6 - Legacy Storylines Exhibition**

**Share a link:**

<https://drive.google.com/file/d/10F8Htjdm0DZYFDXZ8122RzbFF34ivhr/view> (p. 152)

**What is about and why is relevant for CENTRINNO:**

Any citizen sensing initiative needs to be able to explain why and how data was collected, linking it to the wider community’s objectives. Storylines can take a variety of forms and formats. From videos with community member’s testimonies explaining their role and participation in the initiative to local exhibitions in a physical space where the narrative of the initiative is made explicit to the local community. Legacy Storylines can also be used to map interrelations across different individual experiences and perceptions, which may as well provide feedback and identify gaps from the community’s view. Storylines may be combined with other activities, such as dissemination campaigns or local events. To make them part of a communication strategy, this tool can be used in combination with a Communication Handbook<sup>3</sup>.

As part of the Citizen Sensing Toolkit, this tool is part of a wider framework for citizen sensing projects. It is suggested to read the tool’s information in this context so FCHs and the communities running them can understand better when and how to implement it. This particular step in the process (sharing the outcomes of the initiative through communities’ storylines) might provide content to the physical or digital implementation of a FCH, linking people’s experiences on a specific project to the development of the overall initiative.

<sup>3</sup> See as a reference: <https://filbcn.gitbook.io/communication-handbook>

<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>10' - 60'</b> (collecting the storylines) + Production
Facilitator   Participants	Not relevant
Setting	<b>Online/Offline</b>
Contact	<a href="http://making-sense.eu/">http://making-sense.eu/</a> (IAAC and Waag)
<b>Tagging System</b>	
Key concepts	<b>Innovation Spaces, Social Inclusion</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <b>Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community</b> , market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): <b>Building/Area site</b> , Neighbourhood, City, Territory, Global/Local

## 1.4 Tools from the Co-Creation Navigator

### FOUNDATION: Ambition Ranking

Tool

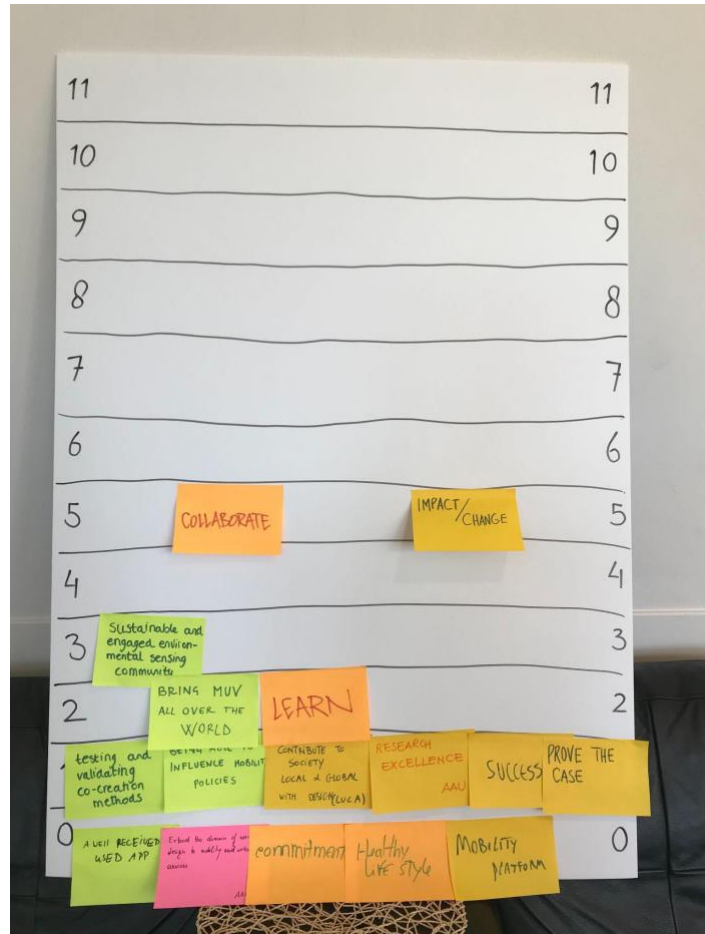


Figure 7 - Example of Ambition Ranking

© Waag

Share a link:

<https://ccn.waag.org/navigator/tool/ambition-ranking>

What is about and why is relevant for CENTRINNO:

This tool is useful for all 5 Key Concepts as well as a general goal setting tool: it helps identify the main shared objectives/ambitions/goals team-members have - so that there is a clear idea to start the project and a common goal to work on.



<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>5-30 min</b>
Facilitator   Participants	<b>F:1   P:10</b>
Setting	<b>Online &amp; Offline</b>
Contact	meia@waag.org
<b>Tagging System</b>	
Key concepts	All CENTRINNO Key concepts
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <u>Setting up the FCH</u>
Actors Participation Triangle	Choose 1 or more among (by order of importance): <u>State, community, market, 3d Sector</u>
Working Scale	Choose 1 or more among (by order of importance): <u>Building/Area site, Neighbourhood, City, Territory, Global/Local</u>

## CONTEXT: Stakeholder Trust Map

Tool



**Figure 8 - Example of a Stakeholder Trust Map**

© Waag

**Share a link:**

<https://ccn.waag.org/navigator/tool/stakeholders-trust-map>

**What is about and why is relevant for CENTRINNO:**

Particularly relevant for Social Inclusion, but through that relevant for all 5 Key Concepts: it helps identify the stakeholders involved and understand the levels of trust between the hosting partner and potential stakeholders, and between different stakeholders. It allows partners to understand in which relationships to invest or improve.

Characteristic	
Difficulty	Medium
Duration	30' -120'

Facilitator   Participants	<b>F:1   P:5</b>
Setting	<b>Online &amp; Offline</b>
Contact	<a href="mailto:meia@waag.org">meia@waag.org</a>
<b>Tagging System</b>	
Key concepts	<b>Social Inclusion</b> , and consequently relevant to the other 4
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): <u>Mapping for FCH</u> , <u>Co-creating for FCH</u> , <u>Setting up the FCH</u>
Actors Participation Triangle	Choose 1 or more among (by order of importance): <u>State</u> , <u>community</u> , <u>market</u> , <u>3d Sector</u>
Working Scale	Choose 1 or more among (by order of importance): <u>Building/Area site</u> , <u>Neighbourhood</u> , <u>City</u> , <u>Territory</u> , <u>Global/Local</u>

## COMMUNITY - Mini Campaign Challenge

Tool/Method



Figure 9

© Waag

Share a link :

<https://ccn.waag.org/navigator/tool/mini-campaign-challenge>

### What is about and why is relevant for CENTRINNO:

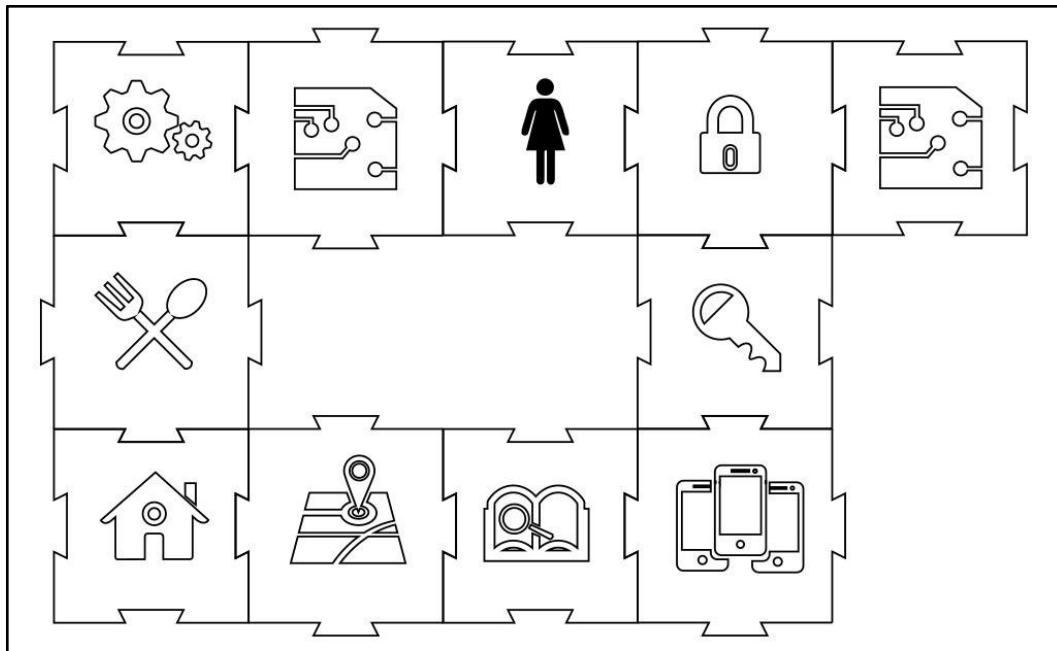
A tool/method useful in the context of Social Inclusion - but with a profound effect on the other 4 Key Concepts: this tool helps to simplify thinking on message and campaign, sometimes useful when setting up an outreach to the community.

Characteristic	
Difficulty	Medium
Duration	30-120 min.
Facilitator   Participants	P:1-5
Setting	Online & Offline

meia@waag.org	<a href="mailto:meia@waag.org">meia@waag.org</a>
<b>Tagging System</b>	
Key concepts	<b>Social Inclusion</b> , and consequently relevant to the other 4
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local

## WORKSPACE - Ideation: Story Puzzle

Tool



**Figure 10**

© Waag

**Share a link:**

<https://ccn.waag.org/navigator/tool/story-puzzle>

**What is about and why is relevant for CENTRINNO:**

Building a local story, together with stakeholders and community members, can sometimes be hampered by language. When different backgrounds come together, different types of jargon can be used - and miscommunication is an easy result. At the same time, brainstorming without something physical in place to document brainstorming can result into endless discussions and meandering. The story puzzles are puzzle-pieces with pictograms on them that are relatively open to interpretation. By using these puzzle pieces, a group can build a story together, and by using the visuals, participants always have to explain to others what the visuals should represent: together the participants not only create a story but also a common language.

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	<b>30'-120'</b>
Facilitator   Participants	<b>P:1-5</b>
Setting	<b>Online &amp; Offline</b>
Contact	<a href="https://waag.org/en/labs/co-creation-lab">https://waag.org/en/labs/co-creation-lab</a>
<b>Tagging System</b>	
Key concepts	<b>Applicable to all Key concepts</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local



## WRAP UP - History Map

Activity

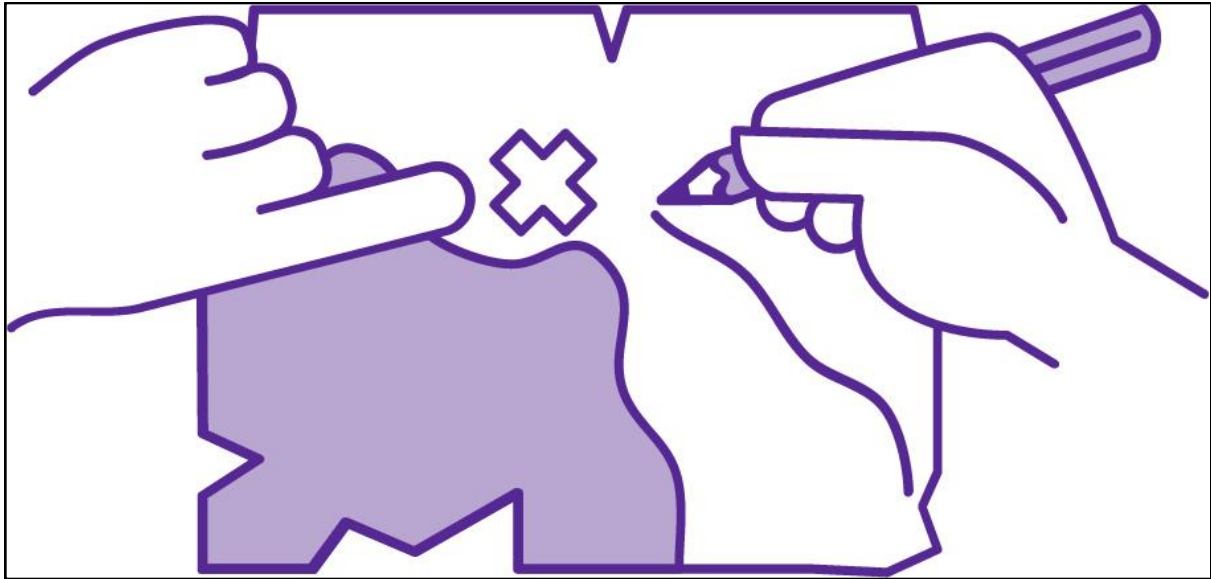


Figure 11

© Waag

### Share a link:

<https://ccn.waag.org/navigator/tool/history-map>

### What is about and why is relevant for CENTRINNO:

The main purpose of this activity is to remind and reflect on what group members or participants have been through and to create a collective experience and shared story. Every individual will gain a shared idea of what the group has been through together. Use this exercise at the end of a project or program as a way to reinforce learnings, celebrate highlights and create closure.

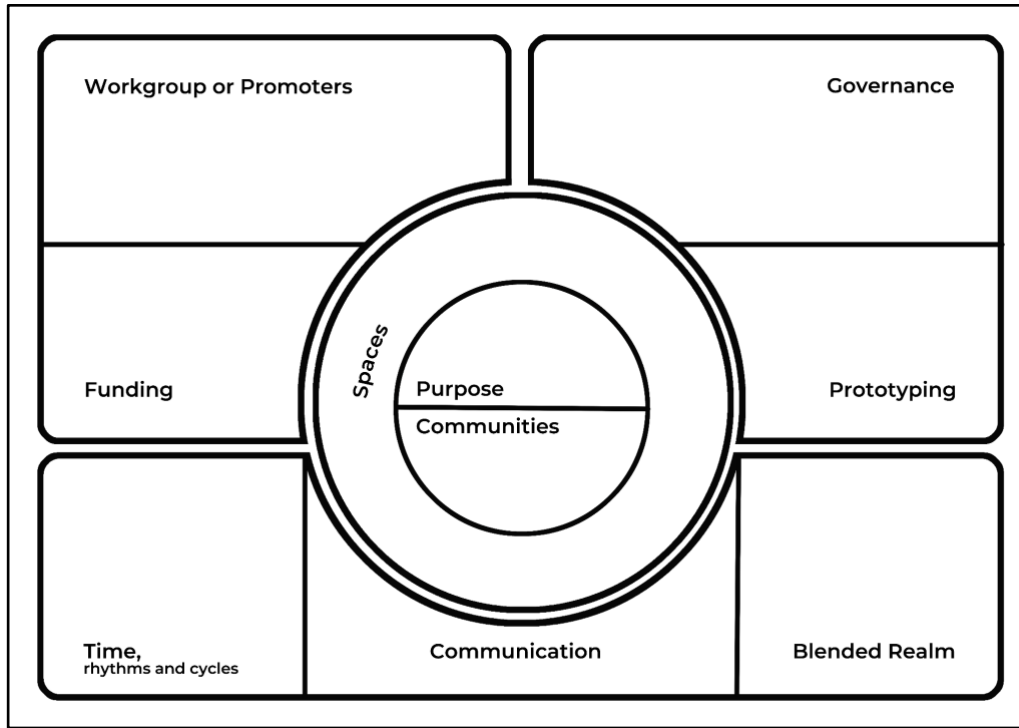
Characteristic	
Difficulty	Difficult
Duration	30'-120'
Facilitator   Participants	F:1   P:25
Setting	Offline
Contact	<a href="https://waag.org/en/labs/co-creation-lab">https://waag.org/en/labs/co-creation-lab</a>

<b>Tagging System</b>	
Key concepts	<b>General process tool so relevant to all 5 key concepts</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local

## 1.5 Tools from the Civic Design Method

### The Collective Intelligence Canvas

Tool



*Figure 12 - Collective intelligence Canvas*

Share a link:

<https://civicdesignmethod.com>

#### What is about and why is relevant for CENTRINNO:

This tool is designed to encourage and facilitate the definition of an action plan with the chronology of the main phases, activities and dynamics to be taken into account to activate a community (or collective intelligence). It should be understood as a tool that suggests 10 essential elements on which to reflect, always bearing in mind that we are focusing on designing the process rather than the result and that we are doing so from a territorialised perspective.

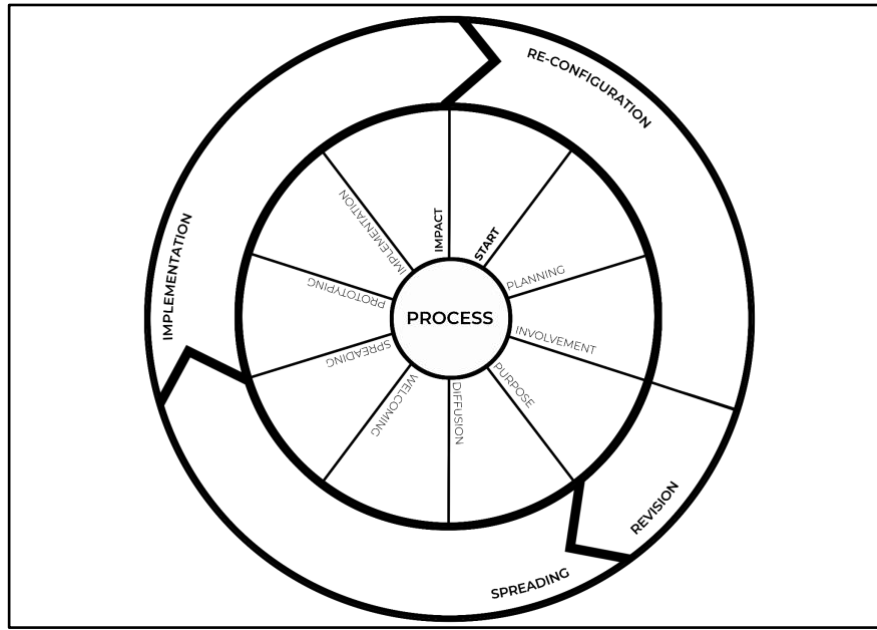
In relation to the process of activating a FCH, this tool is particularly useful to visualise the main elements and dynamics to be taken into account when managing collaboration with multiple stakeholders. It is particularly useful for the very early stages of conception and reflection and complementary with other tools and methods that then allow to go into more detail on the different parts that make up the process and the project.

It can also be used during the project development phase to assess which elements have changed and which should be changed, in order to keep track of them and thus better systematise the knowledge and experience generated during the process.

<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	Not relevant
Facilitator   Participants	Not relevant
Setting	<b>Offline</b>
Contact	<a href="mailto:domenico@volumesparis.org">domenico@volumesparis.org</a>
<b>Tagging System</b>	
Key concepts	<b>Social Inclusion, Circular Economy</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local

## The Circular Process

Tool



**Figure 13 - Circular Process**

**Share a Link:**

<https://civicdesignmethod.com>

**What is about and why is relevant for CENTRINNO:**

This tool is designed to encourage and facilitate the reflection on the main dynamics, actors and elements to be taken into account to activate a community (or collective intelligence). The tool provides a simplified structure based on 10 steps that can be used as a starting point to define a specific process.

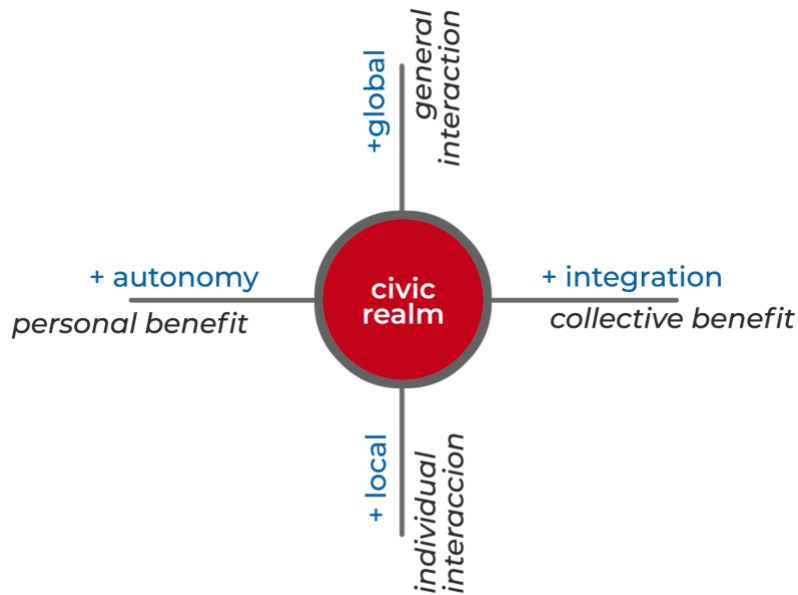
In relation to the process of activating an FCH, this tool is particularly useful for defining an action plan that takes into account the implication of the different stakeholders involved.

It can be used from the very early stages to better understand what the best chronology of events and activities can be to be planned for the involvement of all stakeholders involved. Then it can be used to review the initial plan and understand which actions should be planned that do not involve an excessive loss of interest by those already working together.

<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	Not relevant
Facilitator   Participants	Not relevant
Setting	<b>Offline</b>
Contact	<a href="mailto:domenico@volumesparis.org">domenico@volumesparis.org</a>
<b>Tagging System</b>	
Key concepts	<b>Social Inclusion, Circular Economy</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local

## The Civic Realm Matrix

Tool



**Figure 14 - Civic Realm Matrix**

**Share a link:**

<https://civicdesignmethod.com>

**What is about and why is relevant for CENTRINNO:**

This tool is designed to encourage and facilitate the reflection on the main dynamics, actors and elements to be taken into account to activate a community (or collective intelligence).

It has the double objective of helping to understand the essence of the Civic Sphere and how it can be useful in our project.

For this we use a matrix with two axes. On one axis we focus on the degree of interest, from the most particular to the most general, and on the other, we focus on the level of interaction, from the most personal to the most global. The crossover between them generates the four domains: the domestic, the market, the institutional and the social. They also generate four vectors that indicate the most integrated, the most autonomous, the most local and the most global.

The way it is used is to place actors, places and dynamics in the matrix formed by the two axes. Generally speaking, when these are located more towards the axes, we find ourselves in a situation of greater hybridisation, which becomes maximum when they are located in the centre, which effectively represents the civic sphere.



Depending on the needs of the process, we will understand whether we need to work with greater or lesser hybridisation and thus facilitate our choice between the various mapped possibilities.

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	Not relevant
Facilitator   Participants	Not relevant
Setting	<b>Offline</b>
Contact	<a href="mailto:domenico@volumesparis.org">domenico@volumesparis.org</a>
<b>Tagging System</b>	
Key concepts	<b>Social Inclusion, Circular Economy</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local

## 2 Tools from key concepts owners:

### 2.1 Tools from Onl'fait

#### Open Schooling

Framework



*Figure 15 - Co-creation session with teachers, students and relevant stakeholders*

Share a link:

<https://oshub.network>

<https://www.phereclos.eu>

<https://www.openschools.eu>

#### What is about and why is relevant for CENTRINNO:

Open Schooling supports schools and local stakeholders to use research and innovation as a tool for tackling local challenges and contributing to sustainable community development. Open Schooling Hubs work as mediators in each local community, positioning schools as active agents for collaboration between families, universities, research institutes, industry, enterprises, media, local governments, civil society organizations, and wider society, by engaging in real-life projects that meet societal needs.

The Open Schooling model offers a great opportunity and useful insights that may support the implementation of CENTRINNO School local programs and FCHs as interconnected spaces for intense collaboration and innovation with other stakeholders. Open Schooling creates links between schools and the community to engage different kinds of learners.

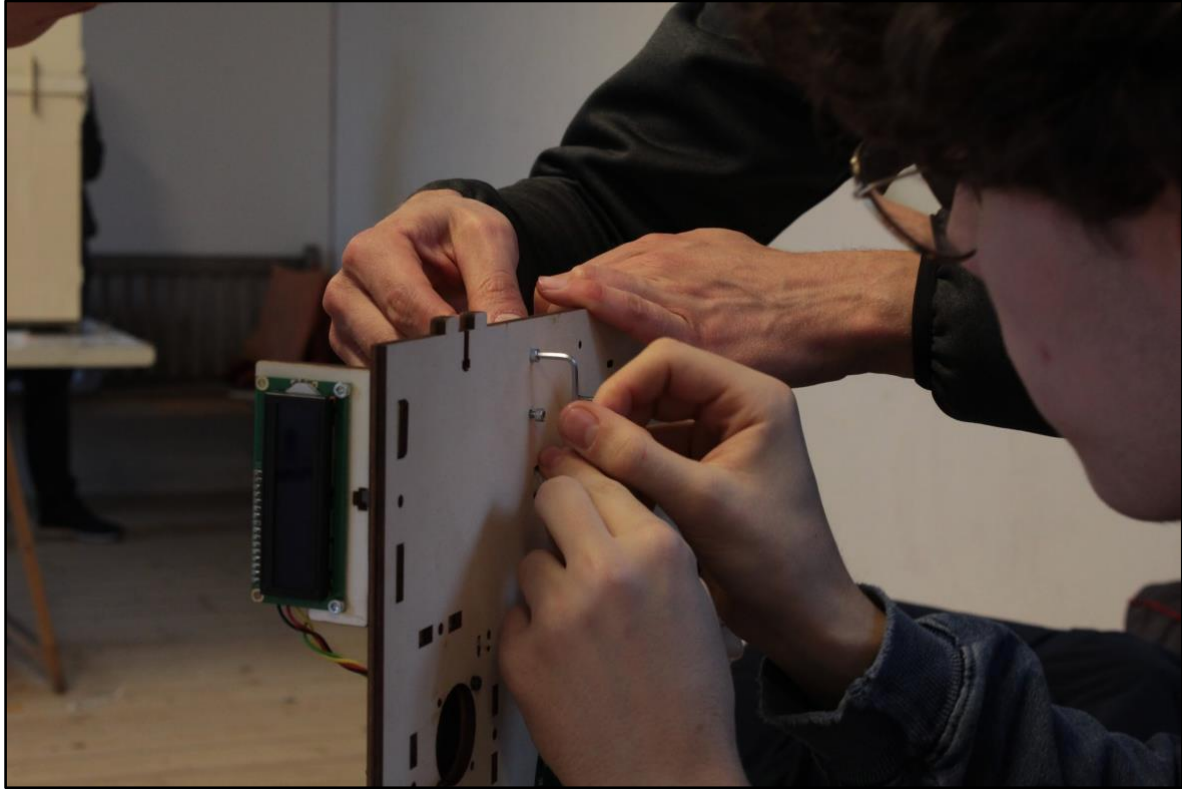
Pilots developing programmes in collaboration with vocational schools will greatly benefit by this methodology because Open Schooling ensures a multi-layer engagement of the learners (from technical problem-solving to community engagement). Open Schooling shall be used from the very start of the programme to involve the stakeholders in the whole process, from identifying an issue to sharing the results.

Open Schooling might be a challenging framework to put in place in schools and it requires time for continuous assessment. A dedicated training is therefore needed to become familiar with Open Schooling.

<b>Characteristic</b>	
Difficulty	<b>Difficult</b>
Duration	<b>2-9 months</b>
Facilitator   Participants	<b>F: 2   P: 15-100</b>
Setting	<b>Offline</b>
Contact	cristina@onlfait.ch
<b>Tagging System</b>	
Key concepts	<b>Vocational training, Social Inclusion, Innovation space</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, <b>Co-creating for FCH, Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): <b>State, community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, <b>City, Territory</b> , Global/Local

## Gradual Release of Responsibility (GRR)

### Method



*Figure 16 - Workshop applying GRR method*

#### Share a link:

[https://en.wikipedia.org/wiki/Gradual\\_release\\_of\\_responsibility](https://en.wikipedia.org/wiki/Gradual_release_of_responsibility)

#### What is about and why is relevant for CENTRINNO:

The Gradual Release of Responsibility (GRR) model encourages teachers to teach skills in a similar way to the notion of apprenticeship - where the 'master' gradually inducts their students, or 'apprentices' into an area of expertise. These approaches can be summarised in "I do it - We do it - You do it (together and alone)"

The GRR is a method that CENTRINNO School local programs may use in their implementation. GRR stimulates autonomy and a healthy approach to problems, especially manual ones.

Pilots developing training programmes for students and adults may get inspired by this 3-step teaching method designed to foster student collaboration and create active learning environments. It is a suitable method to teach practical skills but also more abstract concepts.

The GRR method shall be implemented along the whole learning process to be effective, over several weeks or even months. It is a method that should be embedded in the planning of a training. A dedicated training is needed to become familiar with GRR.

<b>Characteristic</b>	
Difficulty	<b>Difficult</b>
Duration	<b>2-9 months</b>
Facilitator   Participants	<b>1-2   25</b>
Setting	<b>Offline</b>
Contact	cristina@onlfait.ch
<b>Tagging System</b>	
Key concepts	<b>Vocational Training, Social Inclusion, Heritage</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <b>Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): <b>State, community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, <b>City, Territory</b> , Global/Local

## Fab Academy Distributed Model



*Figure 17 - a craftsmanship Workshop*

### Share a link:

<https://fabacademy.org>

### What is about and why is relevant for CENTRINNO:

Fab Academy Distributed Educational Model offers a distributed (rather than remote) educational model: students learn in local workgroups, with peers, mentors, and machines, which are then connected globally by content sharing and video for interactive classes.

The Fab Academy model may serve as inspiration but also be directly connected to the CENTRINNO School programs. It is also an opportunity to develop micro missions and address challenges that are found at the pilot city scale related to innovation and circular economy.

Pilots developing training programmes at regional, national or international level may find this approach suitable because it provides a structure for mixed activities: theoretical, practical, remote and onsite.

The Fab Academy distributed method shall be implemented along the whole learning process to be effective, over several weeks or even months. It can be complemented by an onsite bootcamp, which is a sort of concentrated version of the distributed model.

<b>Characteristic</b>	
Difficulty	<b>Very difficult</b>
Duration	<b>1-6 months</b>
Facilitator   Participants	<b>2-10   30-50</b>
Setting	<b>Offline and online</b>
Contact	cristina@onlfait.ch
<b>Tagging System</b>	
Key concepts	<b>Vocational training, Social Inclusion, Innovation space</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <b>Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, <b>Global/Local</b>



## Bootcamp

Activity

**Share a link:**

<https://bootcamp.textile-academy.org>

**What is about and why is relevant for CENTRINNO:**

A bootcamp is an intensive week-long training for learning various types of skills related to a selected domain, such as textile and new technologies. Participants from different locations, with a variety of profiles and objectives, spend a week together mentored by professionals to experiment, create and learn.

The bootcamp format is relevant to CENTRINNO because it gathers highly motivated European professionals and boost innovation and knowledge sharing. It is an opportunity to exchange best practises and learn from mentors and peers.

Pilots developing programmes to promote innovation and facilitate exchanges at European level may find this approach suitable because bootcamp are an excellent opportunity to establish professional relations and collaborations about fore-front manufacturing topics.

The bootcamp format shall include showcase moments for the local community and leisure activities such as dinners to allow informal exchanges.

Characteristic	
Difficulty	<b>Difficult</b>
Duration	<b>1 week</b>
Facilitator   Participants	<b>3-5   15-30</b>
Setting	<b>Offline</b>
Contact	cristina@onlfait.ch
Tagging System	
Key concepts	<b>Vocational training, Innovation space</b>
Secondary Tagging System	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, <b>Setting up the FCH</b>

Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, <b>market</b> , 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, <b>Global/Local</b>

## 2.2 Tools from Metabolic

### Resource Flow Mapping Workshop

#### Workshop



*Figure 18 - Resource Mapping Workshop*

#### Share a link:

[Resource Mapping Worksheet](#) (v1, will evolve further)

#### What is about and why is relevant for CENTRINNO:

This workshop is a proposed participatory activity for Fab City Hubs and CENTRINNO pilots to kick-start the mapping of resources inherent in local production communities. Building on the method of the Material Flow Analysis, participants from local businesses and industries are encouraged to map the key material and intangible resources they purchase, consume, generate or waste throughout their economic activities. With the help of worksheets and “resource cards”, pilots and participants explore, share and discuss opportunities and challenges to implement circularity in their businesses.

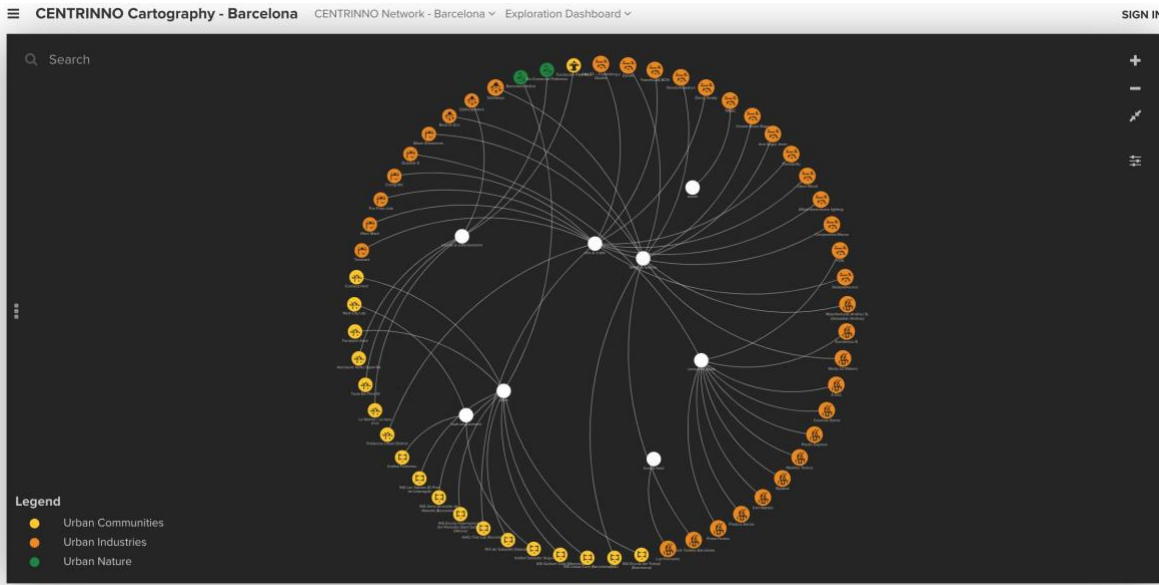
The purpose of these workshops for CENTRINNO FCHs is threefold. Above all, it helps pilots to convene local stakeholders and provide a first platform to discuss the notion of circularity at the local level. Second, it is a means of data collection on locally available resources (or lack thereof) that can potentially inform the choices made when setting FCHs and their activities.

Lastly, the workshop-based mapping of resources can be a steppingstone for FCHs to test and develop more efficient data collection processes on local resource flows in their wider community.

<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>1.5h-2h</b>
Facilitator   Participants	<b>F: 1-2   P: 10-15</b>
Setting	<b>Offline</b>
Contact	<a href="mailto:frenzi@metabolic.nl">frenzi@metabolic.nl</a>
<b>Tagging System</b>	
Key concepts	<b>Circular Economy</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): <b>Mapping for FCH, Co-creating for FCH</b> , Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighborhood, City</b> , Territory, Global/Local

## Kumu

### Platform



**Figure 19 - A Kumu visualisation**

#### Share a link:

Link to [example](#) KUMU project (Barcelona pilot)

#### What is about and why is relevant for CENTRINNO:

KUMU is an online mapping platform used to organize data on social networks or other complex systems. FCHs can use KUMU as a tool for the cartography of urban communities and their resources. It can not only host, visualize and share collected content about the stakeholders involved in the implementation of FCHs but also function as an analytical tool to explore circular opportunities in locally productive communities.

To set up and cultivate a KUMU-based cartography of local Fab City networks and their resources, pilots can resort to the KUMU template and adjust these to their needs. This template prescribes a suggested framework for classifying local community members and suggesting a typology of potentially available resources. With respect to the implementation of FCHs, the mapping of locally present resources via KUMU has several purposes: First, it can enable the initiators of FCHs to understand which tools, equipment and technologies are available or missing within locally productive communities. Second, it can be used to identify materials and wastes that are commonly used in maker communities; thereby, guiding possible pathways of innovation in material substitution, reuse and recycling. Using KUMU to map and visualize local networks and to identify circular opportunities requires a degree of pre-existing knowledge of and good connections to the core stakeholders that comprise local productive networks.

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	Not Relevant
Facilitator   Participants	Not Relevant
Setting	<b>Online</b>
Contact	frenzi@metabolic.nl
<b>Tagging System</b>	
Key concepts	<b>Circular Economy, Innovation space, Vocational training</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): <b>Mapping for FCH, Co-creating for FCH, Setting up the FCH</b>
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community, market, 3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighborhood, City</b> , Territory, Global/Local

## Mapping roles in the Circular Economy

### Workshop

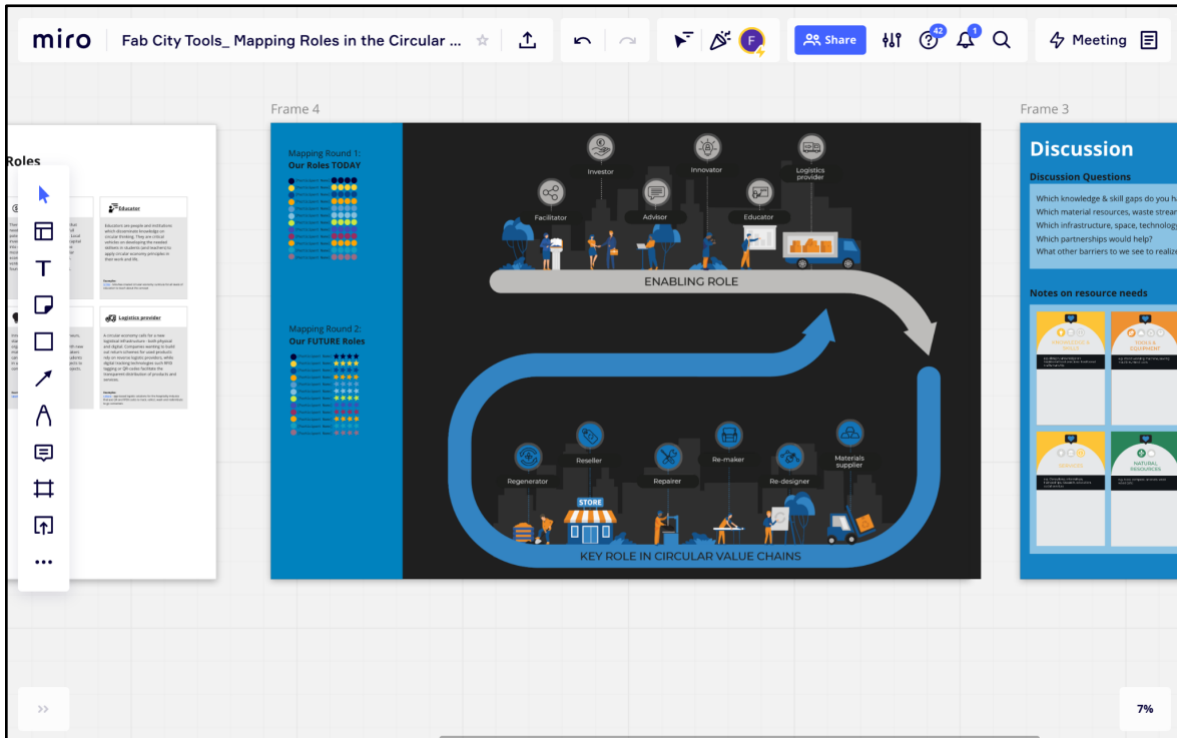


Figure 20 - Mapping Roles workshop visualisation

#### Share a link:

[Workshop Materials \(MIRO\)](#)

#### What is about and why is relevant for CENTRINNO:

To build a socially inclusive and circular innovation ecosystem around FCHs, they need to convene a diverse group of actors. From recyclers, investors, local industries to community organizations - every stakeholder has a role to play in shaping the vision of a circular economy. However, the first step in this process is to support local stakeholders in understanding their own contribution and potential place within circular value chains.

This resource provides FCHs with a **Circular Economy Roles** classification, consisting of 12 key types of circular economy actors, descriptions and examples. Using these cards within facilitated workshops can help pilots to increase stakeholder's self-awareness and feeling of responsibility in a shared vision towards a circular economy. This tool is suggested to be used together with or before mapping stakeholders on KUMU (tool 2), or as part of a resource mapping workshop (tool 1).



<b>Characteristic</b>	
Difficulty	<b>Easy</b>
Duration	<b>1h</b> When done within a workshop
Facilitator   Participants	<b>1 F   15-20 P</b>
Setting	<b>Online or offline</b>
Contact	frenzi@metabolic.nl
<b>Tagging System</b>	
Key concepts	<b>Circular Economy</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): <b>Mapping for FCH</b> , Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, <b>community</b> , <b>market</b> , <b>3d Sector</b>
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, <b>Neighbourhood</b> , <b>City</b> , <b>Territory</b> , Global/Local

## 2.3 Tools from AHK (Amsterdam University of the Arts)

### Emotional Networking

#### Method



**Figure 21 - An Emotion Networking session conducted at the Reinwardt Academy in October 2021**

© Reinwardt Academy

#### Share a link:

[https://centrinno.eu/wp-content/uploads/2021/11/CENTRINNO\\_APPENDIX\\_Urban-Ecosystem\\_Report.pdf](https://centrinno.eu/wp-content/uploads/2021/11/CENTRINNO_APPENDIX_Urban-Ecosystem_Report.pdf)

#### What is about and why is relevant for CENTRINNO:

The Emotion Networking method is the focal point of the wider ethnographic research approach that has been developed between the Reinwardt Academy and the CENTRINNO project for pilot sites. Both this wider approach, which includes ethnographic fieldwork as well as Emotion Networking specifically, has participation and inclusivity at its core. Emotion Networking involves gathering stakeholders around a specific topic and mapping their emotional response to the topic, as well as the stated emotional responses of the other participants. In this way, Emotion Networking encourages a collective discussion: not by way of trying to reach a consensus, but just a way to visualise the differing - and potentially conflicting - emotional responses to an item of heritage.

The usefulness of Emotion Networking in CENTRINNO is found in 2 interrelated aspects. Firstly, Emotion Networking encourages greater communication between different parties about the characteristics of the pilot site that might be emotional and therefore conflicting to different people with a connection to the site. This aids CENTRINNO's social inclusion focus, by allowing stakeholders who historically have had less chance to have their feelings known be heard and understood.

Secondly, through this communication, the Emotion Networking method can increase knowledge about the histories of pilot sites. Through an exchange of knowledge about the history of pilot sites, examples from the past that could inspire circularity can be explored and demonstrated, in line with the CENTRINNO project's focus on circularity.

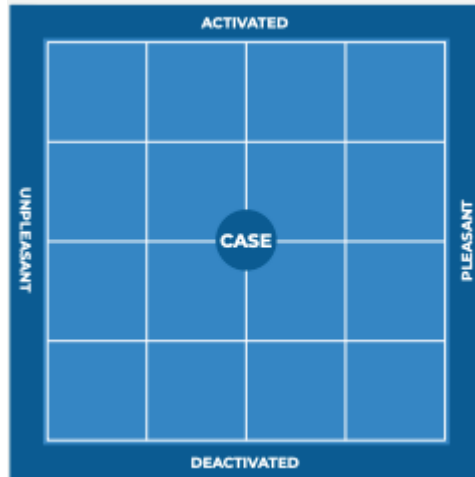
## How and When

The core element of the Emotion Network method is the organisation of Emotion Networking sessions. From these sessions participants and facilitators (as well as any external observers) can expect to have:

- Gained **insights** into the vision on dynamics in culture and heritage on which the method of emotion networking is based.
- Gained **insights** into using emotion networks and the dynamic of conversation to map and understand how an item/object/ location of heritage is understood/felt/perceived by different stakeholders (in the broadest sense)
- Built **capacities** to lead the implementation of emotion networking in the CENTRINNO pilots' Practical information on optimal ways of gathering data, relevant and tailored to local pilot contexts (e.g. photo-voices, mapping, etc

A full How-To Guide for how to conduct Emotion Networking sessions is linked [here](#) (Annex 5, from page 78 - please note that this guide says that sessions need to be online, which was necessary at the time of publication, but of course can safely be done in person too). However, some general guidelines are:

- Sessions are usually 90-120 minutes
- Sessions are hosted by a facilitator and involve around 6-8 participants. An optional observer, noting the developments as the session progresses, can also help
- Sessions centre around one item, usually an item of heritage or something to do with the pilot site: e.g a building, a workman's hat, an image of a ship, and so on
- Sessions begin and end with a check-in / check-out. Given the emotional nature of the content being discussed, this is an important step that shouldn't be disregarded, as it allows for an entry into and exit from the more intense, conflicting conversation.
- Sessions operate broadly by participants mapping their emotional responses to stimuli on a large piece of paper on which a grid with the same general structure of emotional response as shown in the image below is made. Participants then listen to each other's reasoning for their positioning, and potentially can change their positions accordingly.
- Sessions proceed with different introduced stimuli, which are designed to add additional things to consider about the central item. This is also followed by a further round where participants consider stakeholders who are not present in the session and consider their potential response to the item and how that may affect others.



**Figure 22 - A possible Emotion Networking emotions grid**

The Emotion Networking method may be used when an item from the pilot site’s past needs to be discussed. This is particularly useful if the item is disputed or has different meaning to different stakeholders. For example, if a historic building is to be repurposed, people can discuss it in an Emotion Networking session, going on to make arguments for how this repurposing should proceed, taking into account how and why it means different things to different stakeholders.

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	<b>Preparation: 2-3 hours over 2-3 sessions Session itself: 1.5 hour (inc. explanation and reflection)</b>
Facilitator   Participants	<b>1 Facilitator / up to 7 participants</b>
Setting	<b>Online and Offline</b>
Contact	<a href="mailto:hester.dibbits@ahk.nl">hester.dibbits@ahk.nl</a>
<b>Tagging System</b>	
Key concepts	<b>Heritage, Social Inclusion</b>
<b>Secondary Tagging System</b>	
Action Areas	<i>Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH</i>
Actors Participation Triangle	<i>Choose 1 or more among by order of importance): State, community, market, 3d Sector</i>

Working Scale	<i>Choose 1 or more among (by order of importance): Building/Area site, Neighbourhood, City, Territory, Global/Local</i>
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## Oral Histories

### Method



Vivian Perlis, seated left, interviewing composers Aaron Copland, center, and Leonard Bernstein. The photo is believed to have been taken in 1978 in Peekskill, New York. Copland and Bernstein were among the many 20th century musical giants Perlis interviewed for the collections in Yale University's Oral History of American Music, which she founded

### **Figure 23 - Image of an Oral History interview**

*(August 2019). Oral History Association.*

Retrieved from <https://www.oralhistory.org/wp-content/uploads/2020/02/2019-August-Newsletter.pdf>

#### **Share a link:**

*Multiple links are shared in the text below*

#### **What is about and why is relevant for CENTRINNO:**

Oral history is the collection and study of historical information about individuals, important events, or everyday life. These interviews are conducted with people who participated in or observed past events and whose memories and perceptions of these are to be preserved as an aural record for future generations. Oral Histories serve as interpretive recollections of a site's history, as the narrator compresses years of living into a few hours of talk, selecting - consciously and unconsciously - what to say and how to say it.



Oral History is a suitable and commonly-used method for effective [community projects](#), and numerous toolkits can be found online (e.g [here](#) and [here](#)). The Oral History Association offers useful and comprehensive additional [guidelines](#), as well as the [Oral History Review](#).

Oral Histories as a method within CENTRINNO describes the wider approach to gathering the relevant information from stakeholders about their relationship to (the history of) a site. Utilising the approach to Oral History developed by the AHK enables pilot teams and other users of this approach to generate a stronger relationship with stakeholders via an improved communication, and also emphasises aspects of the identity of the site that are less well-known, less easy to document, or have been forgotten about. In much the same way as with Emotion Networking, this focus on the untold or neglected stories of pilot sites can encourage an addressing of the social inclusion focus within the CENTRINNO project.

Speaking to stakeholders personally is important as the act of talking is conducive to the unearthing of details that are part of a pilot site's heritage, that may not be as easily identifiable in the form of documentation or architecture, to state two possible examples.

## How and When

When investigating Oral Histories through conducting interviews, it is necessary to:

- Speak respectfully
- Ensure safety
- Act with curiosity
- Establish a relationship
- Establish genuine trust
- Consider ethics
- Have a goal in mind but be flexible

Oral Histories are not just the act of interviewing a stakeholder, but is comprised of four main action areas:

### Preparation:

- Main research question
- Questions
- Location
- Ethics
- Permission/Consent form
- Recording
- Objects
- Equipment
- Language
- Should you bring something?
- Can you accept a gift?

### Interview:

- What is the location?
- What emotions are relevant or should be considered?
- Can photos be part of the interview, on both sides?



- Prepare questions
- Be flexible with answers
- Consider your body language
- Act truthfully

**Afterwards:**

- Transcribe
- Anonymize/Generalise
- Validation/Verification of claims
- Storage of data/recordings

**Presentation:**

- Analysis
- Categorisation
- How does this fit with CENTRINNO's wider goals and research questions

<b>Characteristic</b>	
Difficulty	<b>Medium</b>
Duration	<b>Preparation: 1 day - Session itself: 1-2 hours</b>
Facilitator   Participants	<b>1 interviewer / up to 2 participants</b>
Setting	<b>Online and Offline</b>
Contact	<a href="mailto:hester.dibbits@ahk.nl">hester.dibbits@ahk.nl</a> - an additional expert within the AHK is Judy Jaffe-Schagen <a href="mailto:judy.jaffe-schagen@ahk.nl">judy.jaffe-schagen@ahk.nl</a> - from whom much of the above guidance came.
<b>Tagging System</b>	
Key concepts	<b>Heritage, Social Inclusion</b>
<b>Secondary Tagging System</b>	
Action Areas	Choose 1 or more among (by order of importance): Mapping for FCH, Co-creating for FCH, Setting up the FCH
Actors Participation Triangle	Choose 1 or more among (by order of importance): State, community, market, 3d Sector
Working Scale	Choose 1 or more among (by order of importance): Building/Area site, Neighborhood, City, Territory, Global/Local