APPENDIX
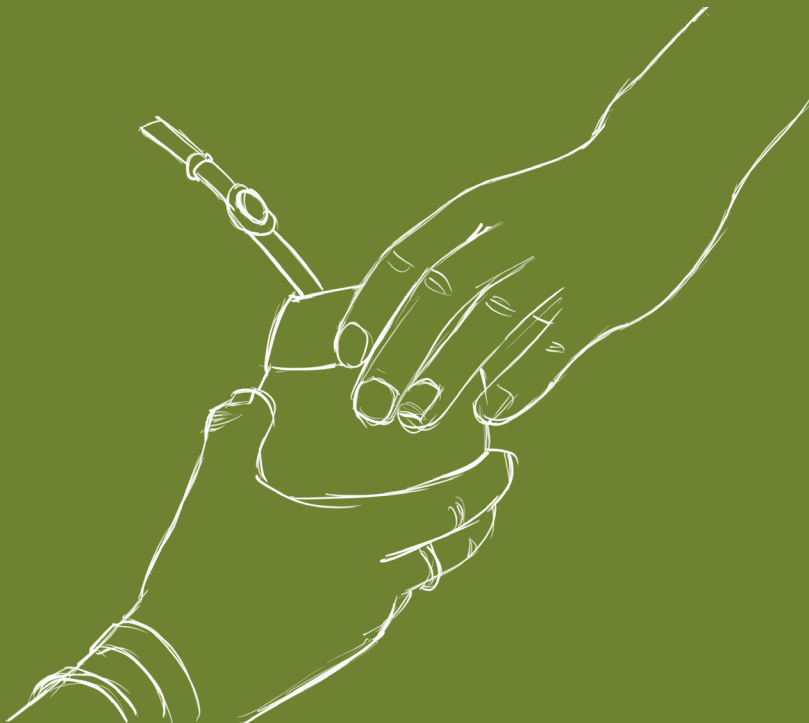## Leveraging circular initiatives for systemic change in Argentina

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This document is not a stand-alone document; it contains the appendices for my Master's Thesis report titled *'Leveraging Circular Communities for Systemic Change in Argentina.'* To locate the references, please consult page xx in the same document mentioned above.

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Appendix A

## Chapter 3. Argentina's analysis with the MLP

Throughout Argentina's history, its identity has undergone multiple (re) definitions due to global circumstances and domestic events. To comprehend the highly influential role grassroots initiatives have played in the nation's history, a comprehensive analysis is conducted and presented in Figure 1, integrating key events from Argentina's history on the three levels of the MLP.

The most remarkable discoveries from this analysis revolve around the significance of bottom-up initiatives, not only within the country but also on an international scale. European and other South American countries have profoundly impacted Argentina's social movements, not just as catalysts but also as entities affected by these events due to the close relationship the country has maintained with them (Uribe, n.d.).

All the bottom-up movements presented here continue to characterize the Argentinean identity even today. Similar to several Latin American cities, because of their rapid growth, governments have been and still are unable to address all the needs of their residents (Bárcena & Vereinte Nationen, 2002). Thus, the practice of taking action individually and connecting with individuals in similar situations is deeply ingrained in Argentina's culture. This mindset is continuously reinforced by a fragile political system and a lack of trust in governmental institutions.

A well-known example highlighted in Figure 1 is the Cordobazo, a student movement that took place first in 1918 and later on in 1969. The first one modernized universities throughout Latin America. (Establishing a university in 17th-century Córdoba held significance beyond just education due to the political influence this institution had). The second Cordobazo occurred during the Onganía dictatorship. It began

as a protest against rising prices in the university cafeteria, and the police attempted to suppress it with such violence that labor unions joined in support. This ultimately rendered the dictatorship unfeasible, demonstrating that the Argentine population would not tolerate any form

EXAMINING THE SIGNIFICANCE OF NICHES THROUGHOUT ARGENTINA'S HISTORY.
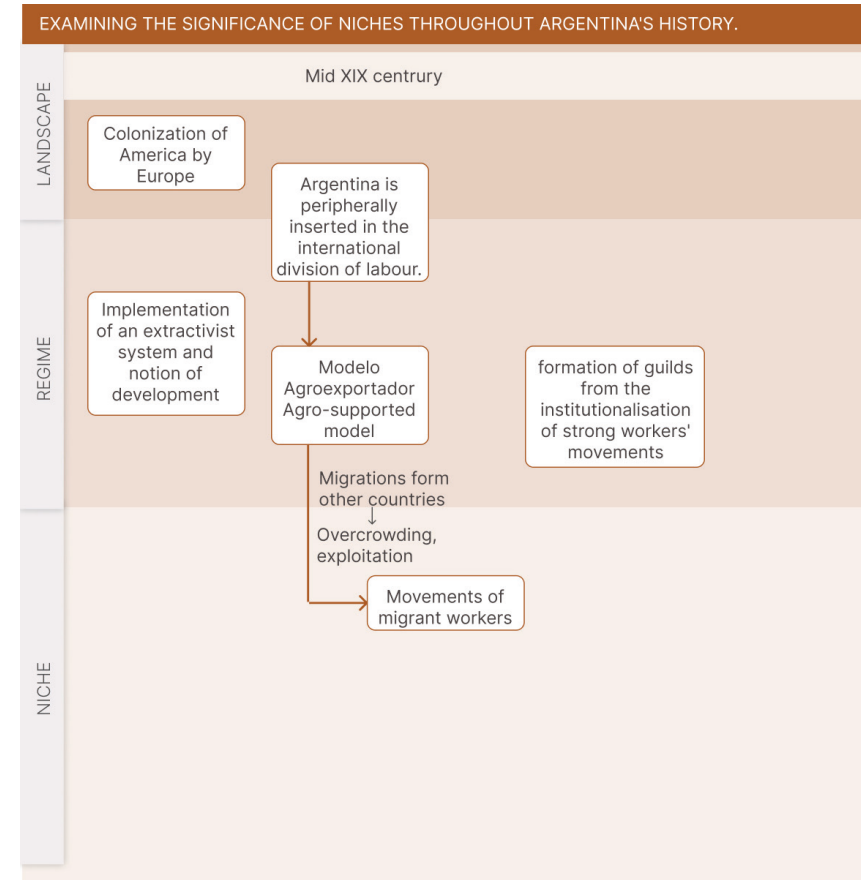
of repression. Similar student movements were taking place in various parts of the world (USA, Mexico, France). This one received particular attention because it resulted in 30 deaths, underscoring the limits of the ruling regime. Both movements sparked similar demonstrations and shaped political traditions, educational frameworks, and prevailing social mindsets, even today, in Latin America (Uribe, n.d.).

In conclusion, social movements have molded the country and the entire continent throughout its existence, making the bottom-up approach an indelible part of people's mindset.
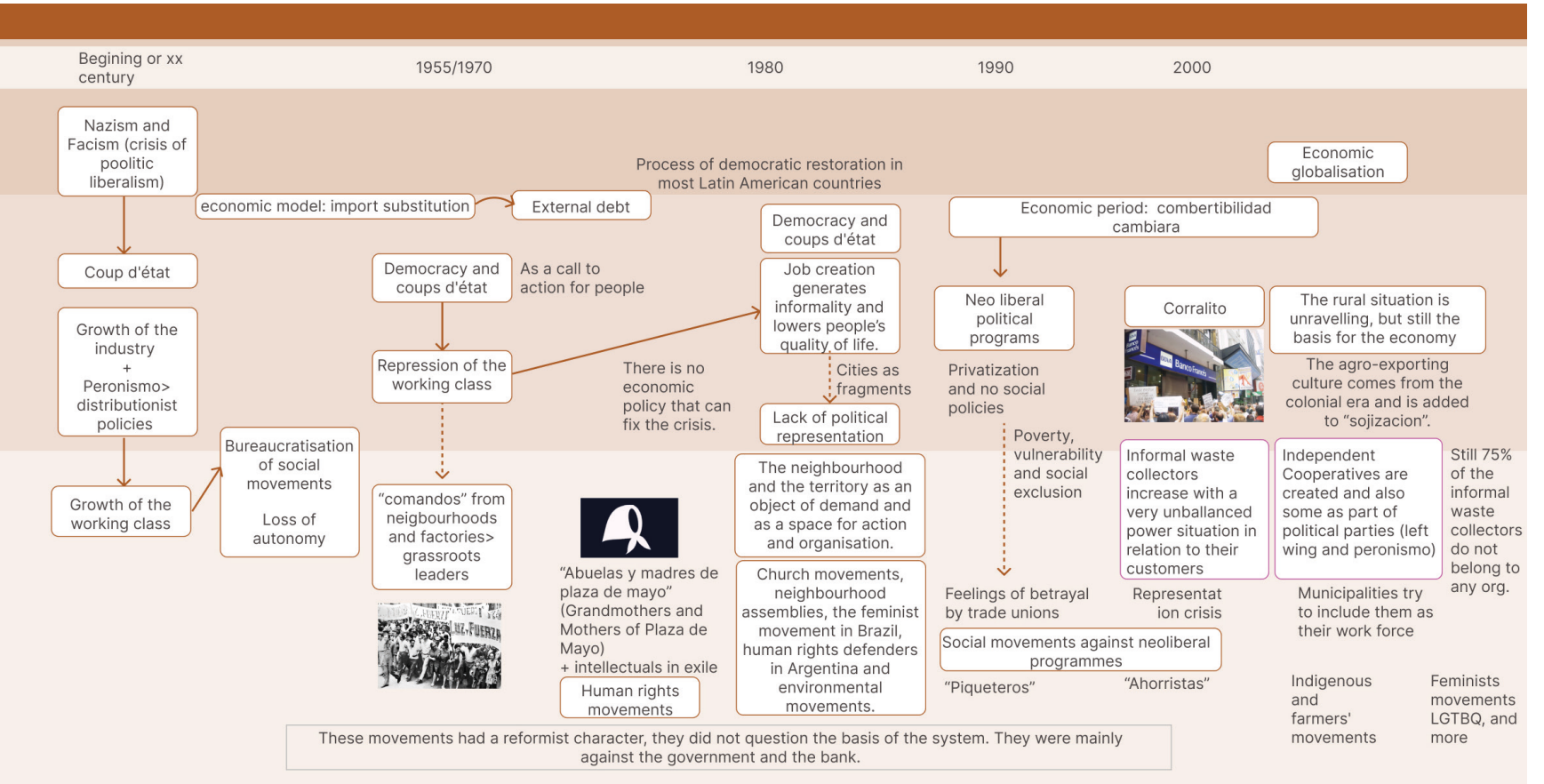
Figure 1: Argentina's systemic analysis: Multi level perspective analysis on the relevance of niches throughout history

Chapter 3: Exploration of the CIs in Cordoba Using the CVF.

An analysis of the existing Circular Initiatives (CIs) in Córdoba was conducted using the CVF method. This analysis aimed to characterize these initiatives and provide me with hands-on experience in utilizing the method. The data were gathered from online sources, informal discussions with some members, and semi-structured interviews. This approach is valuable not only for understanding the initiatives' characteristics but also for establishing initial connections with them, which will aid in evaluating their willingness to participate in the project.

Throughout the selection process, semi-structured interviews were carried out through video calls, and these sessions were recorded and transcribed for later analysis. However, due to the decentralized and unstructured nature of many of these initiatives, it wasn't always possible to schedule remote meetings. The interview questions were structured according to the layers of the CVF, providing a systematic framework for the discussions. However, there was flexibility to delve into additional aspects of the initiatives as the conversation unfolded.

Figure 2 depicts one representative example of the Miro board where
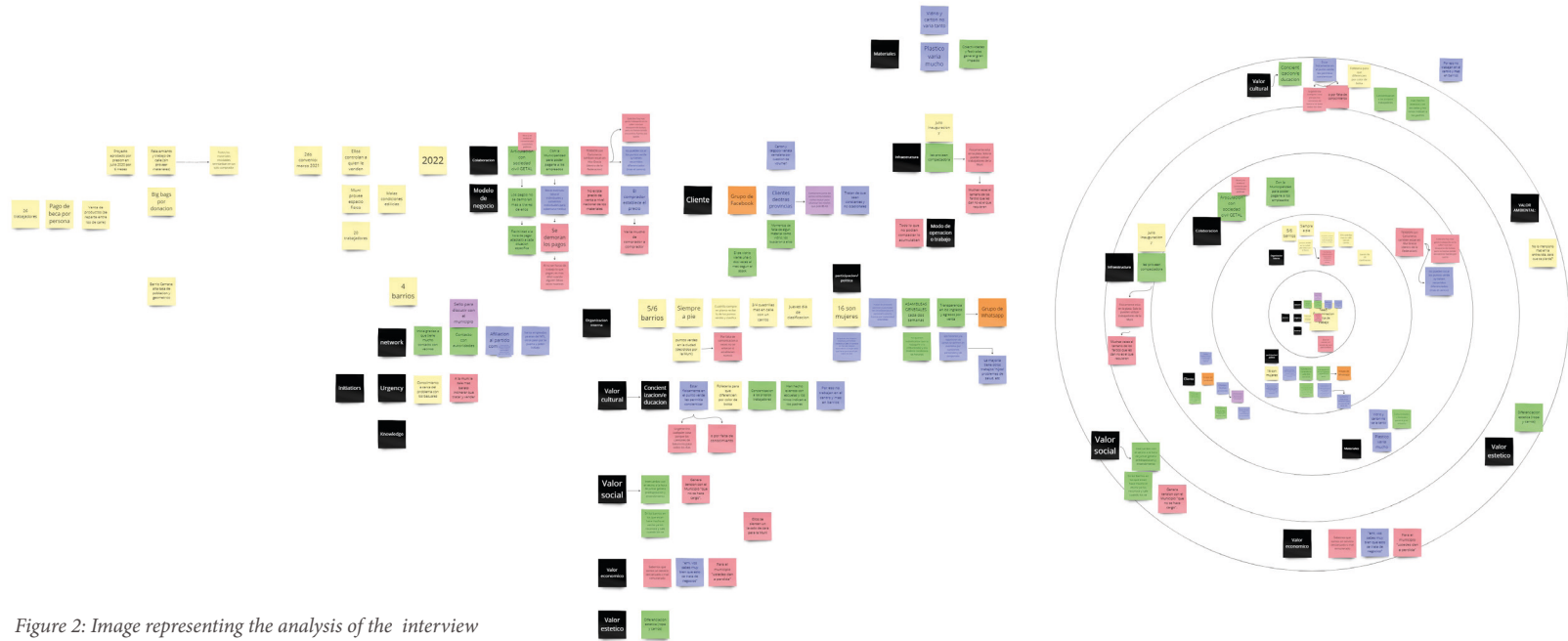
Figure 2: Image representing the analysis of the interview with one of the coordinators from ReUSAR.

the key findings from these conversations were organized and elaborated upon. To categorize the insights obtained from these interviews, a color-coded system was employed. Pain-points were marked in red, while bliss points were designated in green. Tensions were represented in blue, neutral facts in yellow, and the overall topic was noted in black. This color-coding system aided in organizing and understanding the various aspects and sentiments related to the initiatives.

Once the insights were gathered, a dedicated board was created for each initiative to consolidate the knowledge systematically. This helped in the evaluation process, the selection of the most suitable initiative for the project, and in gaining an understanding of the general landscape of

initiatives in the province.

As exposed on figure 3 and 4, the CVF is employed on a Miro board adding post-its on the layers of the flower with the particularities of each initiative.

Like it was mentioned in the opening paragraph, one of the objectives of this activity was to familiarize myself with the CVF method. Therefore, particular attention was paid to its application, its advantages, and its limitations. Further details about the insights and how this process was carried out are presented in Appendix B: *Critical analysis.*
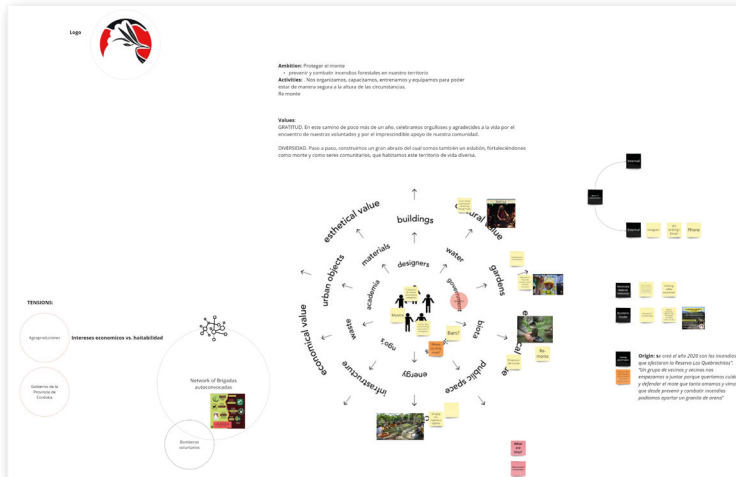
Figure 3: Depiction of the way the CVF canvas was employed to analyse all initiatives. In this case: 'Brigada Chiviquin'

Figure : Depiction of the way the CVF canvas was employed to analyse all initiatives. In this case: 'Umepay'

Chapter 3: ReUSAR and SM contextual analysis

Based on the understanding gained about the context and employing the MLP theory a systemic analysis of the participating initiatives (ReUSAR and Siempre Monte) is performed employing the gain understanding from the Argentinean reality and the initiatives themselves. This analysis aims to delve into the origins and current status of these CIs, as well as the key contextual factors influencing their role within the system in the transition towards sustainability.

One of the most relevant events in their origin is Corralito (Figure 5), the biggest economic crisis in the country. Its repercussions were felt by citizens in all aspects of life. There were protests, looting, chaos, and a lot of distrust towards the government and banking institutions (which has not fully recovered since then) (Uribe, n.d.). The government even declared a state of emergency, generating in the population a feeling very similar to that of the military dictatorships of the 1960s and 70s. The instability was such that in 10 days, the country had 5 different heads of state; and during the following 10 days, the levels of poverty and devaluation increased almost 100%.

The most affected group by this crisis were the middle and lower classes (País, 2021), which among other things, caused an increase in unemployment. Many of them found a way to tackle their situation by becoming waste collectors, raising the numbers of these informal groups. However, this increase and the discontent with the existing political parties, triggered the creation of labor cooperatives and associations (L. Becerra, personal communication, May 5, 2023).
Parallelly, worldwide conversations about sustainability were gaining relevance in Argentina thanks to the improvements in communication and changes in educational plans. This also collaborated in framing these groups and allowed them to gain attention and relevance.

Particularly looking into ReUSAR, the initiative was founded by mem-

Figure 5: Depiction of the chaos on the streets of the country during Corralito. (Argentines Recall Nation's Worst Ever Crisis, 20 Years on | Buenos Aires Times, n.d.)

bers of an alternative political group (the MTL) which also resulted from the crisis. Employed and unemployed people came together to collaboratively fight for their rights and ideas. As mentioned, the main activity of ReUSAR is picking disposed material on the street and selling them once they are classified. Different from what happens in most of the countries in the Northern hemisphere, in general in Argentina waste is not considered a resource. This derives from the fact that most of the value obtained from disposed materials is created by "(...) managing and stocking them, basically by burying them in landfills" (L. Becerra, personal communication, May 5, 2023).

"Slowly a new logic to create value from waste started appearing from flows of reusing and recycling [waste]" (Carenzo, 2011).

These groups of informal waste pickers have been fighting for recognition and rights by (among others) the formation of local cooperatives like ReUSAR (E. Ferreyra, personal communication, April 16, 2023). Nowadays, these cooperatives and associations are more influential at a

Landsccape development

Climate crisis sympthoms

Economic crisis 2009

2030 agenda for sustainable living

COVID

Internationl regulations round sustainability

Extreme lockdown for 6 motnhs

Socio-technical regime

CORRALITO 2001 economic crisis

"Wild" fires

Educational programmes and laws around sustainability

Participation of the country in international clusters for sustainabilty

Subsidies and policies to support CIs

Economic and political crisis 2022/3

CE clusters

National regulations about business environmental impact

Peronist parties predominate

5 different national authorities in 10 days

Peronist parties predominate

Only non-perinist president in the last 90 years

Peronist parties predominate

2023 national elections

Niches

CARTONEROS

MTL

ReUSAR

Circular product labeling and certificates

Asamblea del monte

Brigadas autoconvocadas

Biblioteca popular

independent living communities

comunidad

2001 → 2023

■ Main factors that undermining the stability of the system

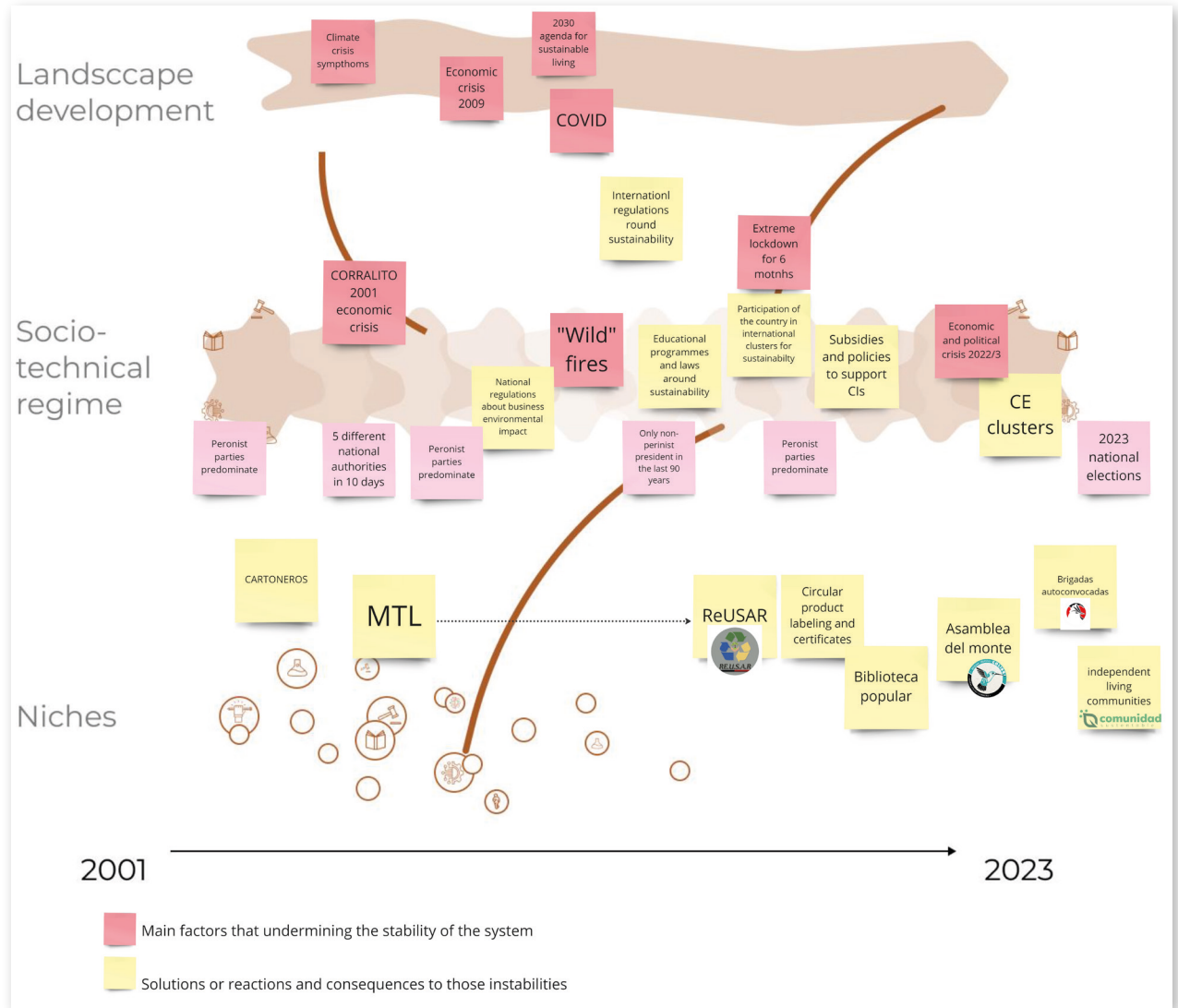■ Solutions or reactions and consequences to those instabilities

Figure 6:
Figure 6: Zooming in into the MLP analysis to situate ReUSAR and Siempe Monte project in relation to the main triggers for them to originate and their current context

regime level due to their social, economic and political relevance while still facing numerous barriers derived from the regulatory and idiosyncratic predominant framework in the country. Regardless of the fact that their actions '(...) imply a radical modification of the ontological condition of waste (as a flow and as an economic resource), space (from the margins) and work (waste picking as a proper job)" (Carenzo, 2023). Even though the enforcement of laws related to sustainability is not strong in the county, international companies which aim to comply with international regulations, find informal recyclers as a convenient solution. This creates a highly tensionate situation for the government because these initiatives are basically covering a gap the government is not able to deal with (once again in the country's history, as explained in the theoretical framework). A wide range of other stakeholders also benefit from them (like service providers, logistics providers, and more) by being part of this "gray economy". However as explained by Dr. Lucas Becerra (2023), these informal waste collectors do not create surplus. Hence, their inclusion in the current capitalistic and linear system is not easy. This is another characteristic fact of Argentina, the formal and informal systems are so highly linked that they depend on each other to thrive, and in their interaction numerous tensions arise.

In Argentina, around 1 million people live (or survive) thanks to the value created by this informal waste pickers directly as a source of income for their family. Hence, there are many actors who have been working under the logic of CE even before the adoption of the term in the social discourse. This creates one of the most important points of attention when working with notions from Circular Economy as a concept. The way it was originated in the UK, as mentioned before, refers to a regenerative and restorative system by design that clashes with the dependency these groups have with waste (the more waste there is, the more job opportunities they have).

In the case of Siempre Monte their origin and existence is affected also by the consequences of the corralito in reinforcing the Argentinean mindset of proactivity and activism in the middle class against issues the government does not provide concrete answers to. Because of the education and economic position of its members, their way of facing these situations is different than the one from ReUSAR. On top that, other events like the symptoms of the current environmental crisis and the accessibility to information, have increased their awareness around the need to take action towards a more sustainable system. This initiative is mostly composed by youngsters which shows the generational mindset switch in middle and highers classes from a more Eurocentric and productivity centered way of living to a more situated and senti-pensante one.

This group as well as some other of the investigated initiatives are taking advantage of the first laws and subsidies offered by the government and academia around CE which come from international influence, and are being pushed even further by these niches. Slowly but steady more and more clusters of circular organizations, sustainability labels for products and alternative ways of doing are being proposed by these groups taking advantage of the widows of opportunities opened in the regime level.

Appendix B

Chapter 4: Critical analysis of the CVF

The following pages delve into a comprehensive analysis of the CVF method and its tools. This analysis draws from my own experience with the method, experiences gathered from workshops organized by the CC Foundation, and a thorough understanding of the Argentinean context.

As mentioned in the previous section, the CVF method was applied to numerous initiatives in the analysis of Cordoba's landscape of initiatives. Throughout this analysis, particular attention was given to both the limitations and strengths of the tool. Therefore, whenever essential information about an initiative couldn't find a place within the canvas, or when questions arose and challenges emerged in conveying certain details, these aspects were continuously tracked.

Upon encountering important information that couldn't be assigned to any of the layers, I collected it separately on the side. These elements were then grouped and assigned a category, as illustrated by the black post-its in Figure 6. This process helped in identifying relevant categories of information that should be considered in the redefinition of the CVF.

When presenting the gathered insights, the use of icons, photos, and logos proved helpful in quickly grasping the general characteristics of the
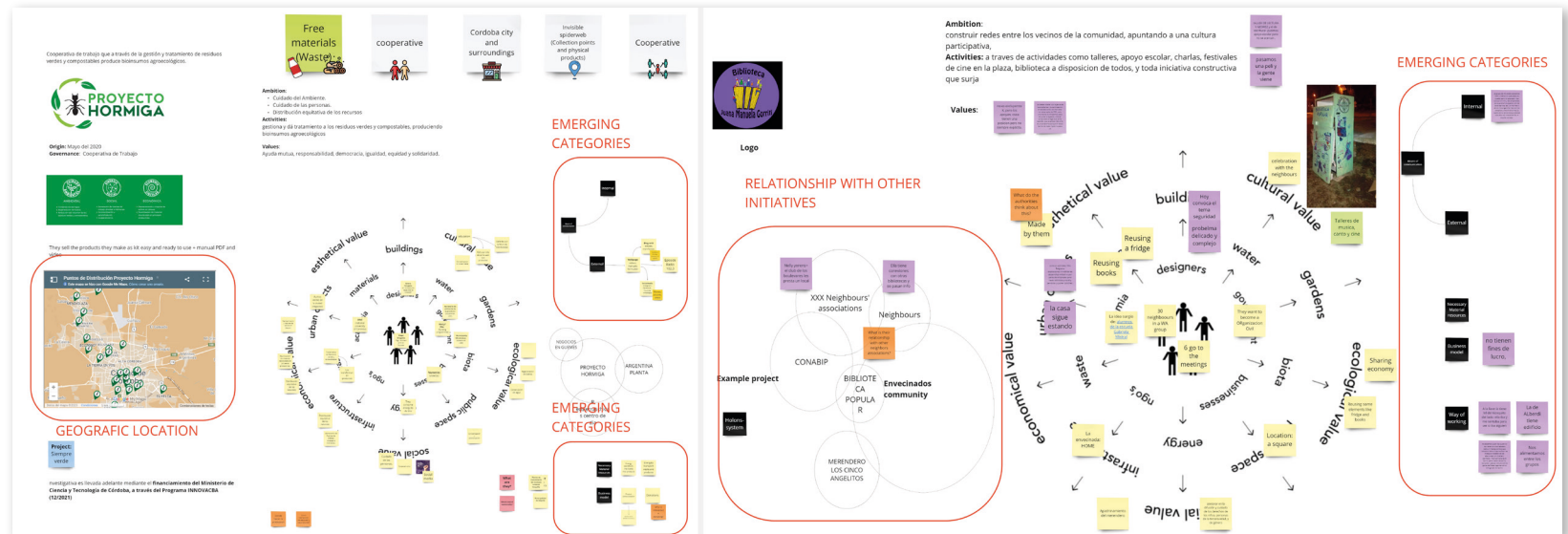

Figure 6: An image serving as an example of two of the analyzed initiatives, emphasizing the additional elements incorporated into the original CVF canvas.
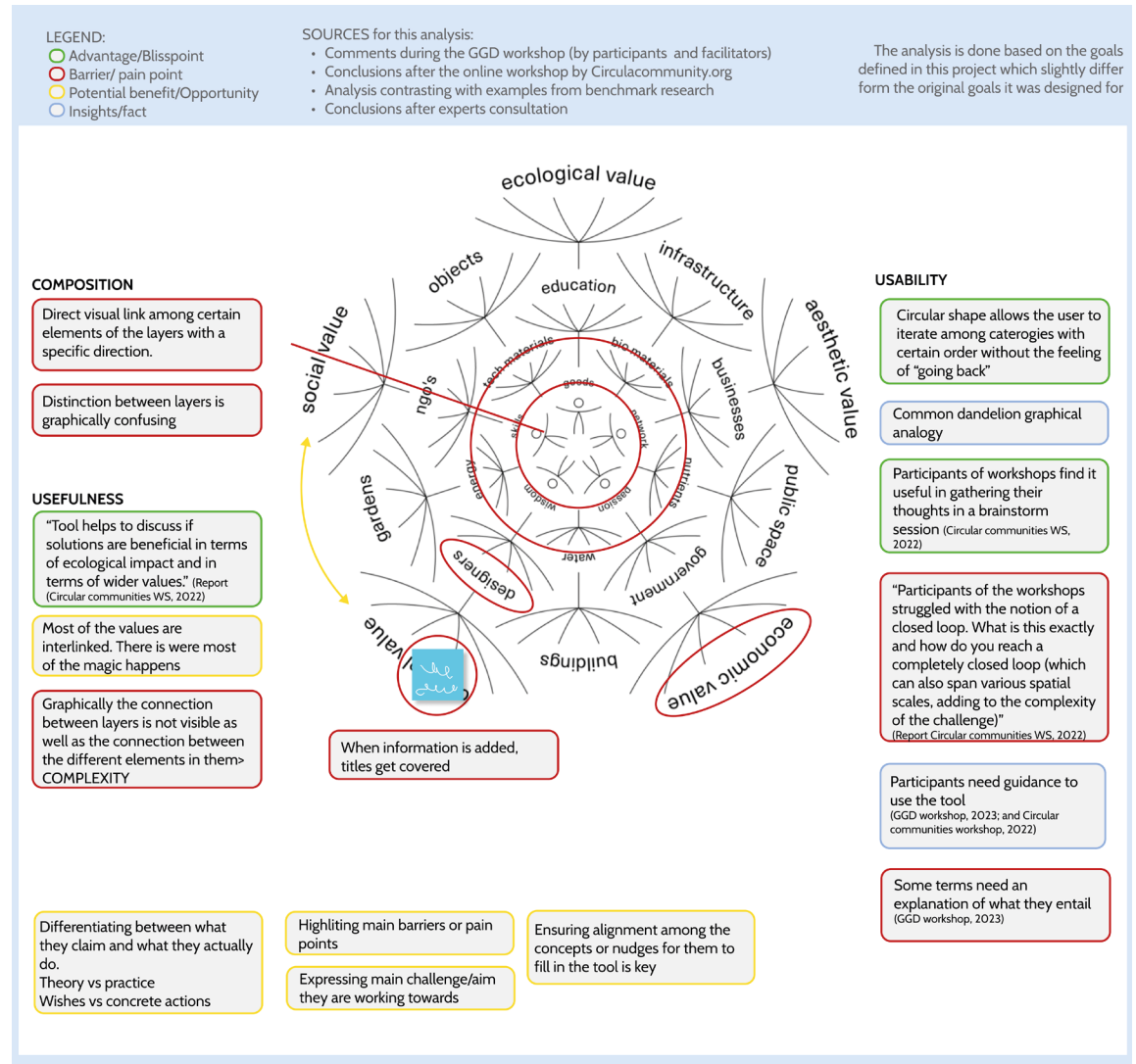
initiative. Post-it notes with information and quotes were also employed to provide more detailed findings and enhance the accuracy of the information.

Additionally, other elements such as maps of their locations and graphic representations of their connections with other initiatives or communities were identified as relevant and thus incorporated into the analysis.

Last, but not least, the canvas also proved useful for me to keep track of questions about the CIs that arose in the early stages of the investigation. This was necessary to ensure I would eventually address them . These questions are included with the orange pos- its as depicted on figure 6.

Subsequently, a critical analysis was conducted on all the tools and elements used by the researchers when applying the CVF method. This comprehensive analysis covered all components of the system: the graphic representation of the CVF itself, followed by the textual findings presented in the book, and the visual map referred to as the 'Value Flower Field Maps'. find in the following pages all the pictures of this analysis.

Figure 7: Critical analysis of the composition, usability and usefulness of the CVF

LEGEND:
- ⦿ Advantage/Blisspoint
- ⦿ Barrier/ pain point
- ⦿ Potential benefit/Opportunity
- ⦿ Insights/fact

SOURCES for this analysis:
- Comments during the GGD workshop (by participants and facilitators)
- Conclusions after the online workshop by Circulacommunity.org
- Analysis contrasting with examples from benchmark research
- Conclusions after experts consultation

The analysis is done based on the goals defined in this project which slightly differ form the original goals it was designed for

COMPOSITION

Direct visual link among certain elements of the layers with a specific direction.

Distinction between layers is graphically confusing

USEFULNESS

"Tool helps to discuss if solutions are beneficial in terms of ecological impact and in terms of wider values." (Report (Circular communities WS, 2022)

Most of the values are interlinked. There is were most of the magic happens

Graphically the connection between layers is not visible as well as the connection between the different elements in them> COMPLEXITY

When information is added, titles get covered

Differentiating between what they claim and what they actually do.
Theory vs practice
Wishes vs concrete actions

Highliting main barriers or pain points

Expressing main challenge/aim they are working towards

Ensuring alignment among the concepts or nudges for them to fill in the tool is key

USABILITY

Circular shape allows the user to iterate among caterogies with certain order without the feeling of "going back"

Common dandelion graphical analogy

Participants of workshops find it useful in gathering their thoughts in a brainstorm session (Circular communities WS, 2022)

"Participants of the workshops struggled with the notion of a closed loop. What is this exactly and how do you reach a completely closed loop (which can also span various spatial scales, adding to the complexity of the challenge)" (Report Circular communities WS, 2022)

Participants need guidance to use the tool (GGD workshop, 2023; and Circular communities workshop, 2022)

Some terms need an explanation of what they entail (GGD workshop, 2023)

As depicted on figure 7, the distribution of the elements on the graph is where most of the pain points were found due to the distance among them, the inclusion of the Dandelions, and the usage of the same font and color across the layers.

Its main strengths lie in the division into groups or themes represented by layers composed of elements, making it an approachable way to tackle the complexity of an initiative. The main opportunities revolve around the possibility of including a broader scope of graphic triggers, not only to make it more engaging and approachable but also to guide the user by manipulating the hierarchy among the elements.

Figure 8 shows another layer of this analysis, with a particular focus on the layers and the elements within them. Within these layers, no significant challenges were revealed; mostly, opportunities to more precisely tailor it to the context were highlighted. Additionally, there were opportunities to include other relevant elements that should be considered when using the method, such as dilemmas among the members within the initiator layer and the political value within the outer layer.
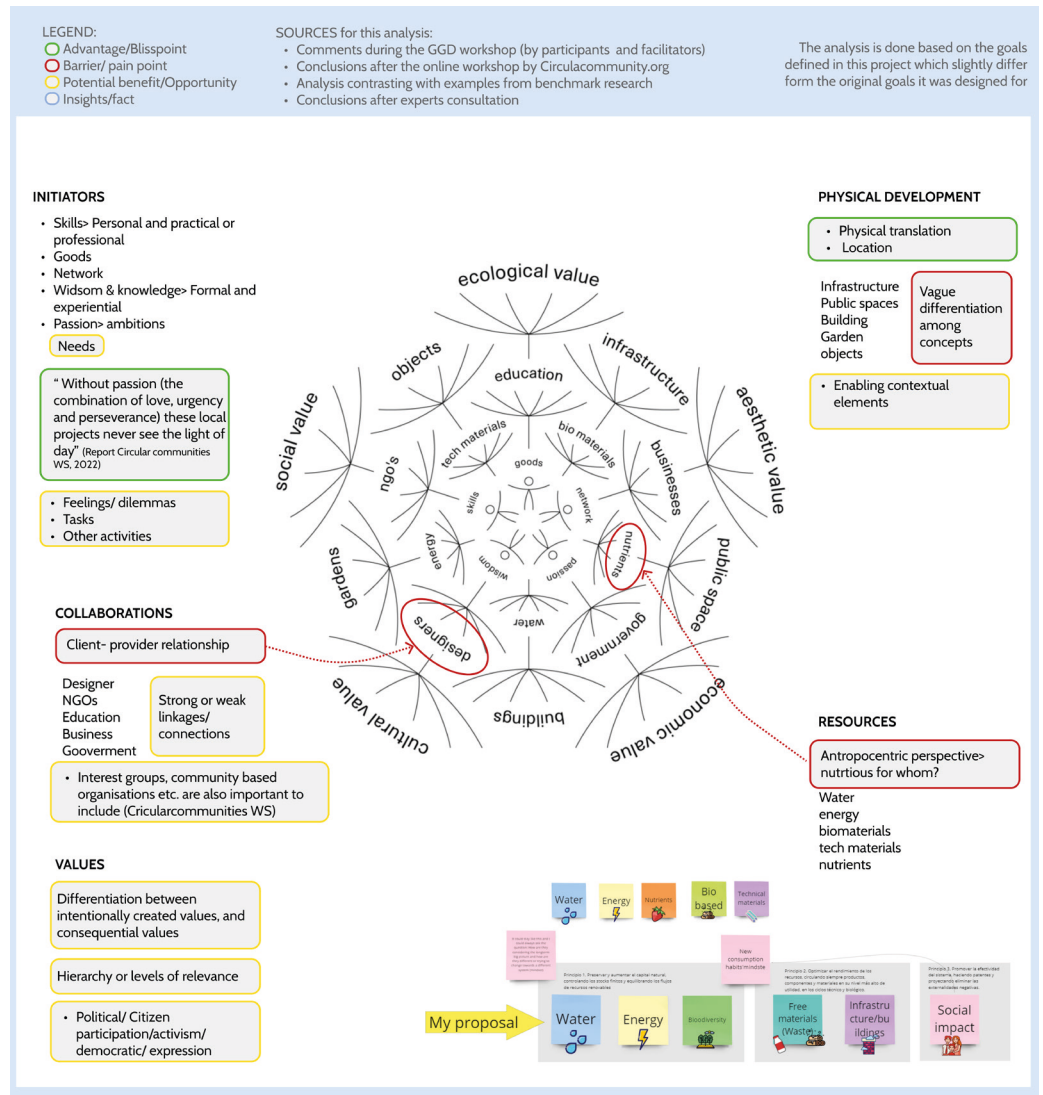

Figure 8: Critical analysis of the elements componing the canvas of the CVF.

As a result of their initial application of the method, the researchers wrote and published a book that presented all the insights they had gathered. Consequently, its content was also analyzed, as demonstrated in figure 9. This figure serves as an illustrative example of the exercise conducted within the entire book chapter.

In this case, numerous insights were collected in relation to how their findings are expressed and particularly which aspect of each element is described. For example the use of quotes is highlighted as a very powerful resource.

The cases are also depicted through words and images, utilizing two types of diagrams based on the layers of the Circular Value Flower: the Layered Onion diagram (found at the bottom of Figure 9) and the Value Flower Field Map (analyzed on the subsequent page, Figure 10).

Subsequently, the Value Flower Field Map was analyzed. This element aims to expose the process and the relationships among the stakeholders and the complexity of the initiatives in a simple visual way. Therefore, it serves not only to communicate the main insights obtained from each case, but it also provides a common ground to compare and cross reference different initiatives.

Understanding that the authors utilize this map in the book alongside the text, the primary opportunity here is to develop it into a standalone diagram. Doing so could open up numerous possibilities for its use within and outside the initiative's community, and expanding its readership.
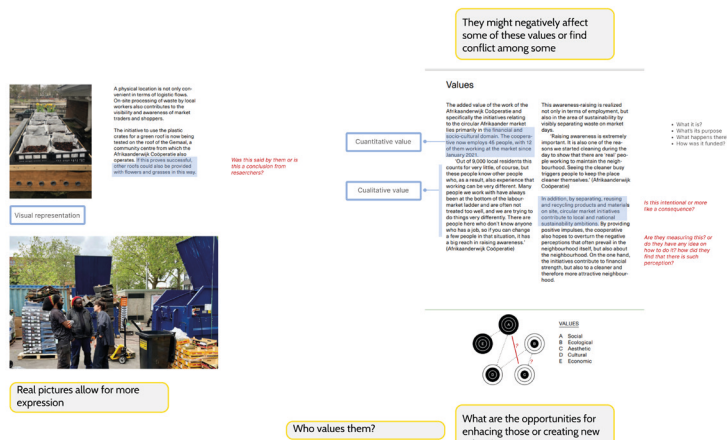

Figure 9: Image of one section of the analysis of the results obtained and shared in the book

LEGEND:
- ○ Advantage/Blisspoint
- ○ Barrier/ pain point
- ○ Potential benefit/Opportunity
- ○ Insights/fact

SOURCES for this analysis:
- Comments during the GGD workshop (by participants and facilitators)
- Conclusions after the online workshop by Circulacommunity.org
- Analysis contrasting with examples from benchmark research
- Conclusions after experts consultation

The analysis is done based on the goals defined in this project which slightly differ form the original goals it was designed for

Clear identification of the proyect with name, logo and/or specific colours

INTERVENTIONS

AIM: clear diagrams the complex integral process by which neighbourhood initiatives are developed

Starting reading point

Balanced relevance among elements

Reading orientation

CONNECTION between elements

Loss of the qualitative aspect by only naming the element

Iconography for easy and fast comprehension

Characteristics are not mentioned

Understanding that initiatives are always interconnected,

Time consuming to make (according to authors)

It's dependent on the written report

Contextualizacion: connection with territory is highly relevant

Infrastructure at the bottom supporting the other elements

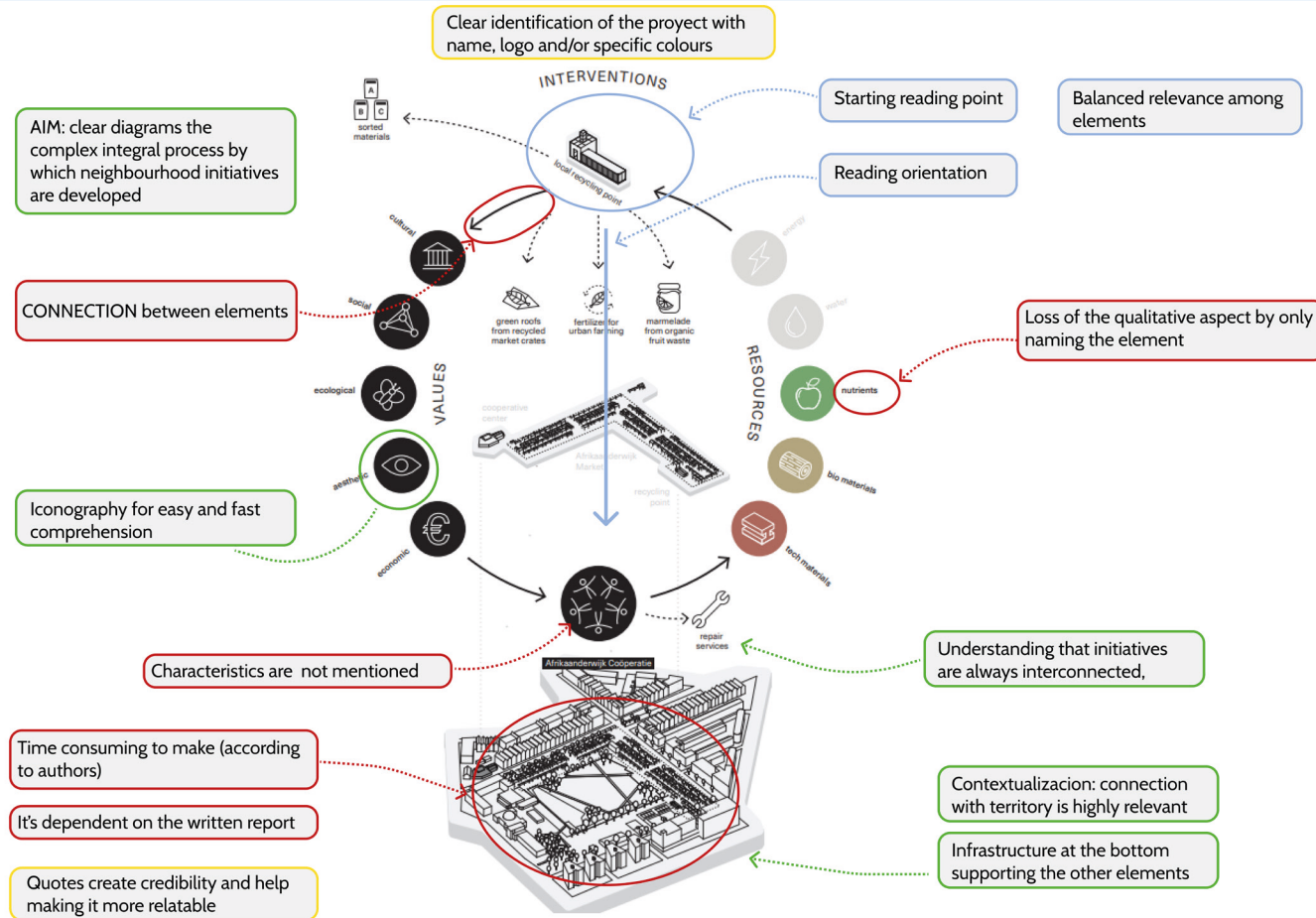Quotes create credibility and help making it more relatable

Figure 10: Critical analysis of the Visual map called Value Flower Field Maps.

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Lastly, the format employed to share and compare best practices was also analyzed. This resource is characterized by a very concise and concrete format to share qualitative information. Employing clear and concise text accompanied by representative icons, it provides a brief and specific description of the characteristics of the initiative as depicted on Figure 11.
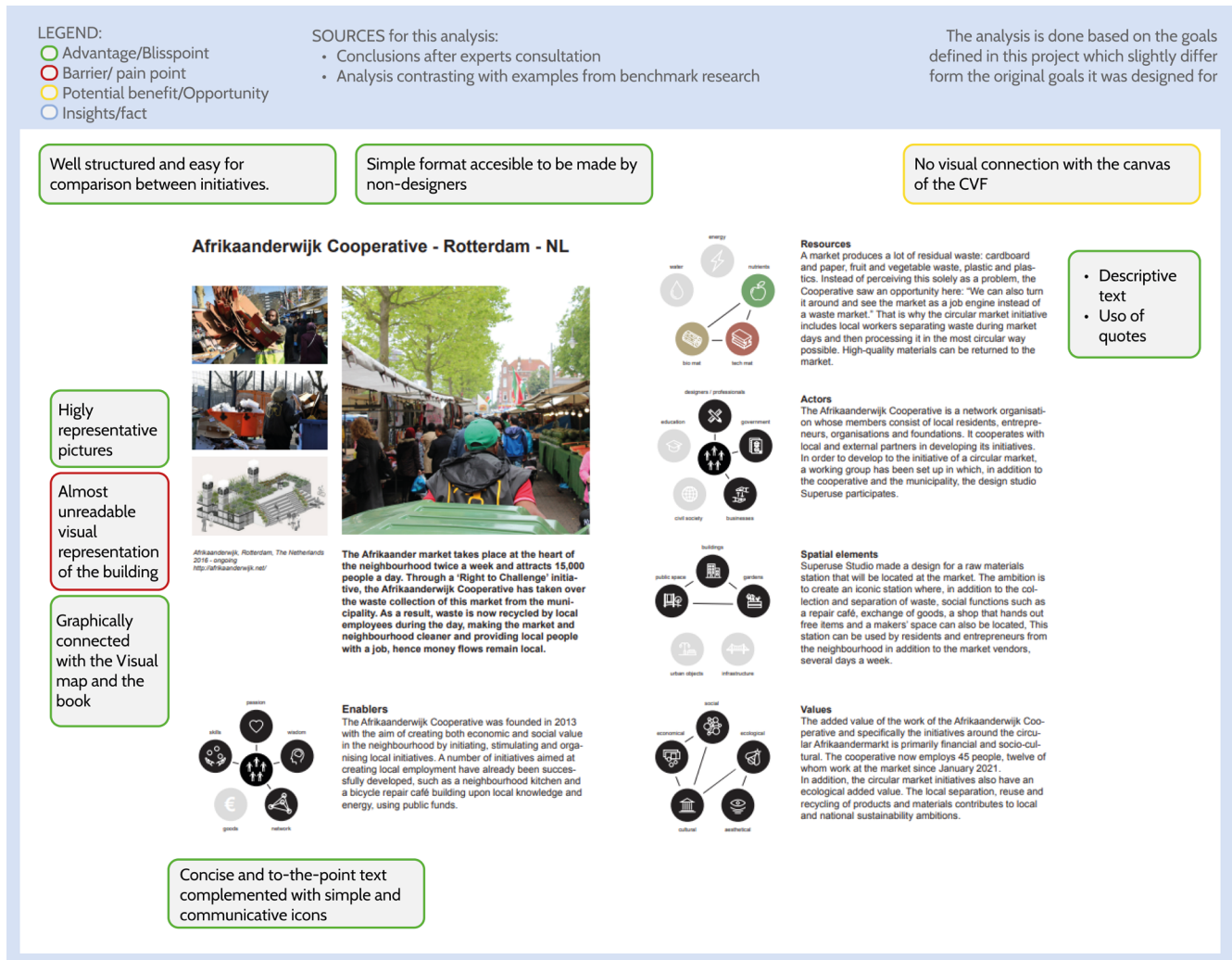
LEGEND:
○ Advantage/Blisspoint
○ Barrier/ pain point
○ Potential benefit/Opportunity
○ Insights/fact

SOURCES for this analysis:
• Conclusions after experts consultation
• Analysis contrasting with examples from benchmark research

The analysis is done based on the goals defined in this project which slightly differ form the original goals it was designed for

Well structured and easy for comparison between initiatives.

Simple format accesible to be made by non-designers

No visual connection with the canvas of the CVF

Afrikaanderwijk Cooperative - Rotterdam - NL

• Descriptive text
• Uso of quotes

Higly representative pictures

Almost unreadable visual representation of the building

Graphically connected with the Visual map and the book

Afrikaanderwijk, Rotterdam, The Netherlands 2016 - ongoing http://afrikaanderwijk.net/

The Afrikaander market takes place at the heart of the neighbourhood twice a week and attracts 15,000 people a day. Through a 'Right to Challenge' initiative, the Afrikaanderwijk Cooperative has taken over the waste collection of this market from the municipality. As a result, waste is now recycled by local employees during the day, making the market and neighbourhood cleaner and providing local people with a job, hence money flows remain local.

Resources
A market produces a lot of residual waste: cardboard and paper, fruit and vegetable waste, plastic and plastics. Instead of perceiving this solely as a problem, the Cooperative saw an opportunity here: "We can also turn it around and see the market as a job engine instead of a waste market." That is why the circular market initiative includes local workers separating waste during market days and then processing it in the most circular way possible. High-quality materials can be returned to the market.

Actors
The Afrikaanderwijk Cooperative is a network organisation whose members consist of local residents, entrepreneurs, organisations and foundations. It cooperates with local and external partners in developing its initiatives. In order to develop to the initiative of a circular market, a working group has been set up in which, in addition to the cooperative and the municipality, the design studio Superuse participates.

Spatial elements
Superuse Studio made a design for a raw materials station that will be located at the market. The ambition is to create an iconic station where, in addition to the collection and separation of waste, social functions such as a repair café, exchange of goods, a shop that hands out free items and a makers' space can also be located, This station can be used by residents and entrepreneurs from the neighbourhood in addition to the market vendors, several days a week.

Enablers
The Afrikaanderwijk Cooperative was founded in 2013 with the aim of creating both economic and social value in the neighbourhood by initiating, stimulating and organising local initiatives. A number of initiatives aimed at creating local employment have already been successfully developed, such as a neighbourhood kitchen and a bicycle repair café building upon local knowledge and energy, using public funds.

Values
The added value of the work of the Afrikaanderwijk Cooperative and specifically the initiatives around the circular Afrikaandermarkt is primarily financial and socio-cultural. The cooperative now employs 45 people, twelve of whom work at the market since January 2021.
In addition, the circular market initiatives also have an ecological added value. The local separation, reuse and recycling of products and materials contributes to local and national sustainability ambitions.

Concise and to-the-point text complemented with simple and communicative icons

Figure 11: Critical analysis of the format employed to share Best Practices.

Chapter 4: Benchmark research

Expanding upon the discoveries from the analysis presented earlier, this section introduces a benchmark research study. The goal of this phase is to investigate instances of alternative tools, methods, or activities used for similar purposes in various and analogous contexts. The primary purpose of this exploration is to inform the design phase, draw inspiration from successful approaches, and pinpoint potential challenges to steer clear of.

This benchmark research followed a similar logic and utilized the same color coding system as the critical analysis.

For this investigation, three cases were examined in which qualitative research insights are presented in standalone diagrams,similar to the approach taken by the visual map. These cases include a traditional business canvas, a strategic and tactical design roadmap (Montgomery, 2022), and a journey map developed by a design consultancy. These diagrams exhibit variations in terms of the extent of graphic elements employed, the degree of interactivity provided to the reader, and their utilization, as indicated by the dialog boxes in Figure 12 in the top row.

In the bottom section of figure 12, the analysis focuses on best practices and pain points related to the usability and usefulness of the CVF as a research method for collaboratively navigating complexity. Three cases in which a challenge is approached by a group with the support of a graphic/physical element are presented, similar to what is done with the canvas of the CVF.

The first two cases analyzed involve different experiences carried out using the CVF method in various scenarios and with different settings. Additionally, a collaborative board game is included to explore a distinct yet still relevant dynamic. Similar to the CVF method, it has rules that trigger specific usage patterns, and adds an interesting learning

curve in its use, provides a high degree of flexibility, and proves to be a highly engaging.

Best practices >usability and usefullness

TACTICAL AND STRATEGIC ROAD-MAP

GENERAL
Graphs + key words
Institutional/representative colours
Curated by expert designers with the input of the company and trend research

Two different visual maps for different purposes/users
with different levels of tha same plan

Visual connection among layers

Specific connection between elements

GROWY — Growing towards automatized nutritional food

Content related images= functionality

Time consuming in its production

Time as a key element> linear

Personal colours and logos

Specific knowledge is needed to understand it> technicalities and big amount of information

JORUNEY MAP

GENERAL
-Graphs + key words> appealing
-Hollistic and structured visual representation of a complex system> Vivid story
-Goal oriented> with barriers, nuances and blisspoint

Different SH's vew or version of the same story

Explanation needed to be understood 100%> amount of information can be overwhelming
Some nuances or outliers might get lost

Time as a key e

Cisco EMPLOYEES GROWTH AND LEARN

More than facts:
Challenges, pain points are highlited as well as or bliss points

Best practices> suability and usefulne

ONLINE WORKSHOP

Mostly experts participated

Zooming in and out the complexity> the connection between the big picture and the details is easier to

Internet and technology access as a barrier

Participation form people with very different backgrounds form different

Fashion Village Lab
Cigondewah, Bandung - Indonesia

Project information
Home at Work Research Report
Roadmap of Fashion Village Lab

ASSIGNMENT INTRODUCTION

Valuable content on the post-its

Anonimus participation can encourage fearless participation> useful for

Real pictures are highly relatable and contain a lot of information

2/3 hours long

outcome is quite abstract if thought as solution

Process can be documented even if the outcome is not shareable

"Outsorced" resources can serve as inspiration and tools for particpant to communicat ideas

IN PERSON WORKSHOP

Physical space conditions the interaction

Physical interaction is

It allows for different ways of communicating ideas:
-writting, drawing, moving elements, body language, ect.

Participants needed guidance circ by circle (or layer by layer) while doing the activity. The role of the facilitator was very important.

Figure 12: Benchmark research and analysis based on the main functions of the CVF and the field visual map

s in relation to the visual map as a visual result of a qualitative research

element

Legend to understand how to read

Time consuming in its production

Widely used structure allows for comparison between very different systems

Quick and easy way to capture ideas

Fixed distribution of elements can limit the understanding of connections and there is little room

Little room for customization

Clear particular (ecnomic) approach to the analysis of the system

Iterate going back and forth between the differen analyzed aspects

BUSINESS CANVAS

The Business Model Canvas

or barriers
opportunities

Personal quotes to make it real, relatable and reliable.

Use of metaphors> for the meaning and to make it relatable (source)
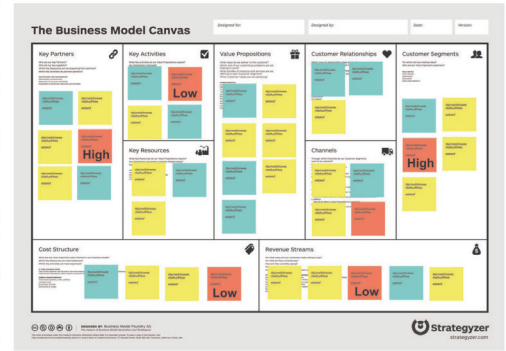
Approachable for intervention by the reader, less sense of finished product or conclusive result

ss in relation to the CVF as a research method to navigate complexity

engaging

2/3 hours long

outcome is quite abstract if thought as solution

The tool allowed for 2 different approaches:
1. individual + plenary
2. Constant discussion

Outcome is not shareable with participants

COLLABORATIVE BOARD GAME

Clear common goal or mission

Easily adaptable to different number of participants

Modular layout allows for adaptations with different levels of difficulty.

Elements constituting the layout and conditioning the mechanics are easily understandable and

Individual skills or capacities are clear among participants play a vital role

Dependent on some arbitrary restrictions or rules

Rules need to be read before starting to use the game

Rules can ensure a leveled playingfield, balancing power dynamics (There are three kinds of rules: rules of skill, rules of transgression, and constitutive rules.)

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Appendix C

Chapter 5: User characterization

In this section the two groups that are considered users of the design outcome are explained.

This new version of the CVF aims at enhancing a participatory approach. Therefore, the expert designer (as the expert in the method) and the members of the initiative (as experts in their experiences) are the main users (Sanders & Stappers, 2012). The concept of expert designers in this case is expanded to that of a facilitator, aiming to create a more inclusive approach.

Facilitator> who can be an expert designer, social innovator, and action researcher. Basically those practitioners who have experience or formal education in areas of problem framing, exploring the problem space, process management, and skills for graphic communication.

Initiative member> People who are active part of the circular initiative in question. Within each initiative, different levels of participation can be found based on how active and influential they are (core members and peripheral members). As well as different levels of responsibility or hierarchy based on the organizational structure: horizontal or vertical.

Chapter 5: Requirements definition

In this section, the requirements leading the design process are explained. These requirements are derived from the empirical and theoretical research findings of the research for design phase.
As explained in chapter 4 during the analysis of the CVF, there are two main functions these tools need to perform for the method to be successfully applied: (1) guide a collaborative analysis of an initiative and (2) build a visual representation as a summary of the insights gathered. Following these two functions, the requirements have been divided in two tables.

Table 1 exposes the main requirements conditioning the development of the tools for the session (function 1). In the middle column, the requirement specifications are emphasized, linking on the left to their source and on the right to potential alternatives for their implementation.

Table 2 describes the most relevant requirements conditioning the design of the visual map to be built after the session (function 2). The left column indicates the source of these requirements, while the right side offers multiple alternatives for their realization.

Despite the differentiation of these two functions, as the outcome needs to be cohesive, in practice, all the requirements were constantly affecting the process and therefore each section of the outcome.

Main source	Requirement for the tool (WHAT?)	Potential manifestation (HOW?)
Sanders, E. B. N., & Stappers, P. J. (2012).	Allow for unplanned elements and emergent concepts among the existing ones	Modularity, mobile elements, empty spaces, accompanying material (like post its, pens and images)
Participants comments during workshops Benchmark research	Nudge users to participate, intervene the tool, make it their own	Empty areas triggering the user to fill them in
M. Franco-Torres, et al. From benchmark research and personal intervie DI Manuel Torres Zamenopoulos et al. 2021	Nudge particpants to contribute with explanations and descriptions behind facts and actions	Un finished sentences Questions aabout concrete experiences Providing icons, images and writting space Presenting some of the insights already collected Using pot-its or providing specific areas to write and draw
	Enable participants to reflect and express themselves by offering a tangible record or physical documentation.	
Personal experience analysing initiatives and Participants' comments during the workshop	Ensure alignment among the concepts or nudges for them to fill in the tool	Customizing the elements based on the initaitve adapting the languaje through wording, imagaes and text
Personal experience analysing initiatives Argentinean analysis	Allow for itearation while completing the layers	Circular shape, ,two sided arrows
de Koning, Escobar, Diana Uribe, Rubén Hernández Yunta	Ankowledge the other areas impacted by the community (intentionally or not)	Include Business model, political impact. Different "scales" of impact: perosnal, communal and social.
Participants comments during workshops	Ensure clear differentiation between layers/ general topics	Playing with distance and color coding between layers
(Patricio Labo de innovacion CBA), Velenturf, A. P., & Purnell, P. (2021)., Manzini, 2016, p., Zamenopoulos et al. 2021,	Encourage collaboration among the designer and different actors from the community/initiative	Wording or images people can understand without explanation
Sanders, E. B. N., & Stappers, P. J. (2012).	Ensure accesibility: easy to build anywhere in Argentina	DYI format based on stationery elements like: post-its, poster paper, tape and markers or pencils.

Table 1: Main design requirements guiding the design process of the elements for the session.

Main source	Requirement for the tool (WHAT?)	Manifestation (HOW?)
Personal interview with initiatives' leaders and personal experience	Ensure legitimacy by being attractive, easy to read and believable	Visual balance between colours, images and queantifiable components
M. Franco-Torres, et al. From benchmark research and personal intervie DI Manuel Torres Zamenopoulos et al. 2021	Encourage ownership over it by being relatable for the memebers of the initiative.	Connection with terrritory. locality Connected to the tool and activities performed
3- 30 -300 Rule	Clear differentiation of the project	Expressing the name, logo and/ or specific colours Utilizing specific iamges
Argentinean context analysis (Patricio Labo de innovacion CBA)	Inviting for reflexion even after the intervention	Highlight tensions, dilemmas, metaphrs and nuances over afctual descriptions
Personal experience Consultation with expert designers (Round Feather)	Provide the designer with a solid yet adaptable foundation to build a predominantly graphic representation with the insights derived from the intervention	Basic section division, elements to identify, visual languaje and suggestions for ways of expressing ideas

Table 2: Main design requirements guiding the design process of the structure for a visual map.

Chapter 5: Design process

The design process begins with the conceptual definition using metaphors and analogies. Various directions were explored, as illustrated in Figure 13

Moreover, the modularity allows for thorough customization of each section to ease the onboarding process, tailored to the unique characteristics of each initiative.
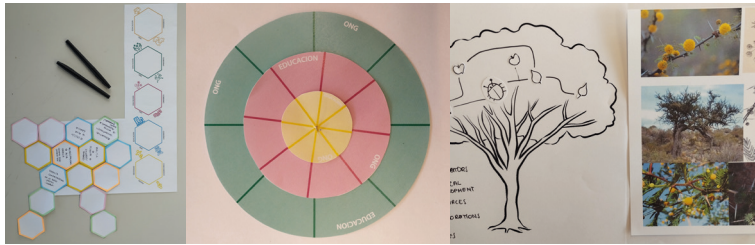

Figure 13, 14 and 15: Photos of some concepts explored during the first iterations.

From this diverging phase, the main idea pushed forward was the idea of employing the visual map as a canvas to support the collaborative session in which the initiative is analyzed. Just like in a board game, the visual map would be employed to support and guide the dynamic of the interactions. This is to ensure the participants would become familiar to the final outcome from the very beginning, triggered to intervene it while following a clear structure.

Thus, the visual map serves as a guide for the collaborative session in which its components (previously referred to as layers) are addressed in a specific sequence, as depicted in Figure 16.

To encourage participant intervention, various elements such as icons, post-its, and other materials were introduced into the system.

After these definitions, I consulted expert design researchers in the field

Figure 16 Representation of the final visual map highlighting the order of the areas to be approached in the session.

of in depth interviews with boundary objects.

The design was evaluated as a valuable, useful and complete tool. However modifications in the affordance needed to be performed. The main changes in this aspect include reducing the perception of the complexity by dividing the visual map into sections to be onboarded one by one as show by the diagram on figure 17. This is mainly to prevent overwhelming the participants and encouraging them to focus on one thing at the time while becoming familiar with the tool.

Additionally, numerous details were incorporated to enhance the relatability of the session for the participants, and encouraging personal expression. As explained in the requirements, the nuances and experiences are more important that mere descriptions. Hence, triggers like incomplete sentences, photos of their initiatives and emojis were incorporated.
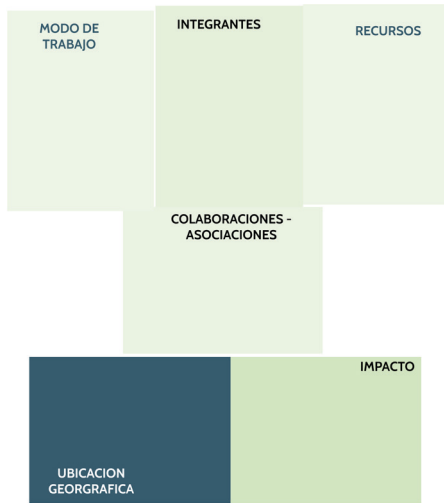
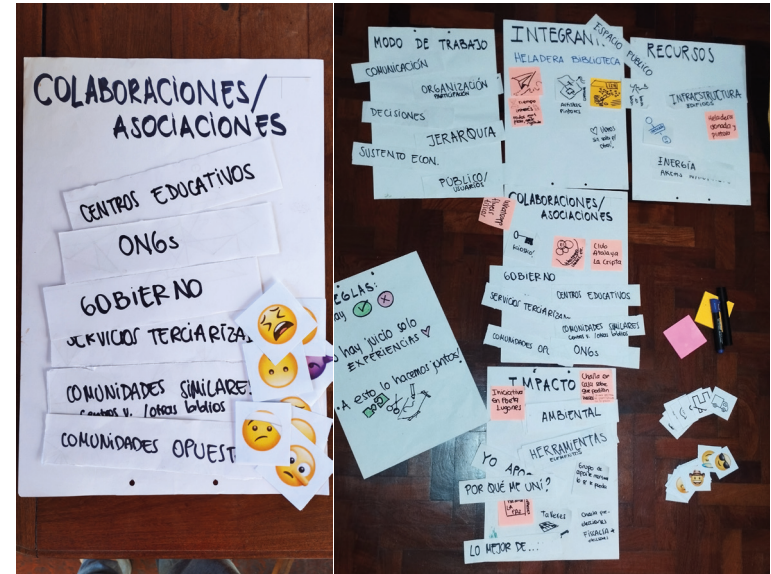*Figure 17: Diagram of the divisions of the sections into simpler elements*

Figure 18: Picture of one of the themes onboarded: Collaborations, with the corresponding topics and elements.

Figure 19; Pictures of the result of the pilot session with Biblioteca Popular.

Once I was in Argentina, I ran a pilot session with a member of a local circular initiative to test the tools in the real environment. This circular initiative is called Biblioteca Popular and even though it fit the criteria to be part of the action research phase, an internal issue made us decide that this kind of participation was a better fit for both parts.

The most significant conclusion drawn from this session was the need for increased modularity. Certain topics naturally flowed into others without the requirement for specific questions or triggers. Consequently, during the session I found myself breaking up the rigid A4s into smaller sections as depicted in figure 18 and 19.

Consequently, the increase in its modularity was adopted for the toolkit. Allowing for customization in the preparation of the session, as well as during the session itself.

To find the final outcome, please refer to the document *CVF Tools: CR Toolkit and CV Map,* which is located as a separate file for better visualization

Appendix D

Chapter 6: Iterations on the action plan

Developing a well-structured plan for the action research phase is crucial for me as a researcher for several reasons. First, it helps me maintain a clear and organized framework while allowing flexibility to adapt to unforeseen circumstances. This balance ensures that my research stays on track even when faced with unexpected developments. Moreover, a well-crafted plan enhances my efficiency, making the most of the time I have available, ensuring I use resources effectively, and minimizing potential delays or setbacks. In essence, a solid plan serves as my roadmap for a successful and productive action research process.

Numerous iterations were undertaken during the definition process, drawing from literature (Hopkins, 1985), consultations with experts, and discussions with my contact person in each initiative. Initially, the first versions began with a few broad steps. As I delved deeper into refining these steps, it became evident that they encompassed numerous activities, causing the plan to become overcrowded. Recognizing that a highly complex and activity-laden plan would not be practical or efficient, I developed simpler and more concise versions in the later iterations. This evolution is illustrated in Figure 20.
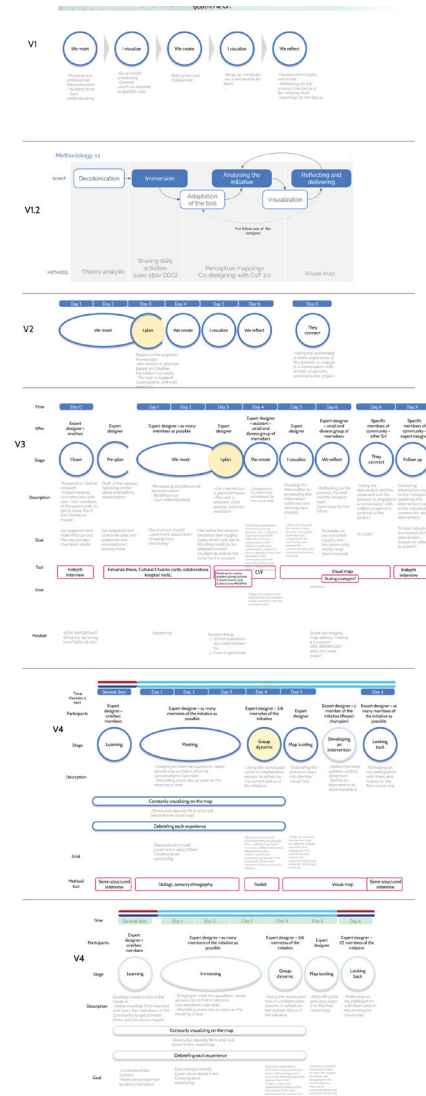

Figure 20: Representation of the different versions that compose the complete evolution of the action plan

Chapter 6: Planning the participatory session

As explained on the report, this session was planned drawing insights from theoretical sources, including in-depth interviews (Patton, 2002), creative facilitation (Heijne & van der Meer, 2019), and the Design For Happiness® methodology, alongside my own extensive experience in these domains, as well as the knowledge gained from the benchmark research valuable input is derived from the guidance of expert designers during the design phase and the outcomes of the pilot session conducted with the toolkit.

The plan defined for this session functions as a guiding framework with general parameters rather than a rigid, step-by-step recipe. This approach aligns with my need for flexibility just like the action plan, allowing me to make real-time decisions while leveraging my sentipensante approach. In the following lines, find the session plan defined by parameters characterizing the location, the approach, the dynamics, and the order in which the topics will be addressed.

The location:
- Selecting a familiar environment for the initiative members, easily accessible and making sure it is comfortable for everyone.

The approach of the topics:
- Always starting from conversations about the present (or near past), and anchoring the questions on recent and concrete experiences to ensure accuracy and experiential details in the answers
- Using open questions, asking 'why' as much as possible and actively asking follow up ones.
- Breaking up every topic into simple questions or triggers.

The dynamic:
- Bringing in a colleague so that I can focus on recording and the other one can lead the session focusing on the content and the par-

ticipants
- Making sure the first activity gets everyone to talk and draw to create the inertia,
- Exploring from emotions to the underlying values to find nuances, tensions and dilemmas,
- Utilizing the physical elements (like post its) not only to record answers, but also to trigger specific reactions and expression,
- Carefully choosing who is participating,

Order in which the session onboards the topics:
The first theme of the toolkit to be approached is *Members*. Starting with this section and an easy and relatable incomplete sentence like "this month's highlight…" helps in breaking the ice and setting the mood for the conversation. Talking about personal motivations, specifics likes and dislikes allows for each member to individually express personal point of view and shows the essence of the initiative followed to later on jump into the theme *Working mode*. In this layer, special attention is paid to the group dynamics focusing on the nuances and the way each members sees them and feels. Next, the theme *Resources* is discussed paying special attention to avoid falling into the most common comment of money being not enough which is characteristic of the context, but understanding it as a symptom to be further explored. Later on, the section of *Collaborations* is approached focusing once again in the experiential characteristics of those associations trying to unveil contradictions, opportunities in the relationships with the stakeholders. Lastly, the *Impact* layer is addressed exploring the values created in different scales (personal, communal and societal) as well as in a broad range of areas (economic, emotional, political, social, cultural, etc).

Chapter 6: Debrief experiences on the field

The early insights informing the research questions are not meant to provide complete answers, but rather to collect findings that will be used later to derive conclusions, as mentioned in the report.

ReUSAR

Day 1

Day 2

Day 3

IMMERSING

While arriving with the freshness of a peach dark morning, I met some of the members on the street. It was very relieving to walk with them those last empty blocks towards the initiative's venue for safety reasons.

Arriving on time is out of discussion, so the first 15 minutes are spent drinking mate and having criollitos to get the necessary energy to start the day. This period also allows them to catch up in personal conversations (one of the most impactful values they gain as members together with the economic one)

This however, doe snot replace the constant talks and joking during the working hours.

Sentipensando ReUSAR:

- Connecting and participating requires lots of physical and emotional energy.
- I am also being transformed personally and professionally
- Flexibility in my plan, expectations and actions is key.
- individualize people
- The impact is not just from my discipline, but more general (physical, emotional, etc)
- Sharing concerns and fears
- Using their gear, their facilities

Personal impact

"Estoy aca por mi hermana y aca encontre contención para alejarme de ciertas situaciones que antes me rodeaban "

"I am here because of my sister and here I have found support to get away from certain situations that used to surround me."

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
- Recycling
- Political campaign
- Means just words if it's not economically affordable
- Means cooperation and collaboration between citizens and Municipality, neighbours and private companies
- Means an opportunity to earn money, but then:. Does CE happen also at home?
- It means (and requires) inclusion of voices, ideas. Diversity if people

Day 1

Day 2

Day 3

IMERSING

RQ 1:

- Uncovering tensions like emotional and social dilemmas(*)
- Showing new perspective of their daily discussions, concerns and actions

Activities were varied. From waste collecting on the street, to shovelling 5.5tons of glass on to a truck. The common denominator is how physically demanding they are. In order to improve their conditions, they are constantly creating tools by adapting elements found around them. They are very aware of their surroundings trying to make the best out of it.

The majority of the members are women. In most cases, neighbour recognize them and support their work, and they also have high expectations on their work.

Emotional dilemma

"(...) estamos constantemente caminando en la cornisa"

"We are constantly walking on the edge"

We need to avoid confrontation with the Municipality

We need to ensure they don't step on us

Sentipensando ReUSAR:

- Getting immersed.> touching lifting, smelling, sensing
- Listening with feelings: these people are not used to talking about them, sharing their knowledge with words, they are not used to being recognized for their knowledge.
- Accepting their help in the most personal domains

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?

- Means equal job opportunities for men and women
- In means a solution to a visible problem: waste on the street
- present, not future
- Means breaking the silos of Municipality and other institutions

Day 1

Day 2

IMMERSING

Day 3

Day 4

PERFORM
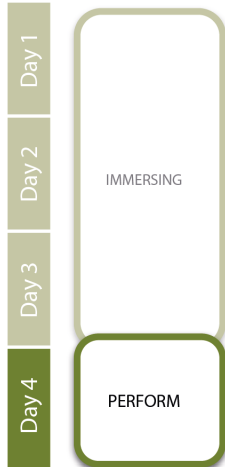
Since on thursday they don't leave the recycling venue, and after building some trust with them, proposed an activity. I brought the toolkit designed in the previous phase. I had to adapt the activity quite a lot because of specific group dynamics they have. For example, I would have rather talked for two hours with 6 people, but I ended up having 1 hour with 2 groups of 5-6. This was to prevent creating tension among between those participating and those having to do the daily tasks. Regardless of all the deconstruction and decolonization I intended, I still used a technique that was not totally familiar for them. This caused that some of them were able to open up and talk, but some others could have used more time.

Regardless of that, very insightful and personal conversations took place.

Based on this, I decided to mainly focus the activity on the waste collectors who are not the most influential when making decisions and don't always feel heard regardless of their leaders attempts.

Social dilemma

"No siempre quiero compartir con todo el grupo que falté por hacerme una ecografia tocoginecologica"

"I don't always want to share with the whole group that I was absent because I had to get gynecological ultrasound done."

Preserving personal privacy — Full transparency in the communication

Sentipensando ReUSAR:

- Trusting intuition, feeling the moment. After all, it is an informed intuition.
- Being an outsider as much as everything is new for me, my conversations and actions are novel for them in their daily tasks

RQ 1:

- Preparation:
  - flexibility is key
  - Customizing the material and the activity
  - using materials relatable to participants
- Teaming up with local expert designers
- Levergaging personal experiences as valuable insights to organise the initiaitve

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Day 1

Day 2

Day 3

Day 4

Day 5

IMMERSING

PERFORM

VISUALIZING

ReUSAR

Building the visual map was really useful to process again all the findings and find new connections between elements I came across during my immersion days as well as during the session.

It was interesting also to compare this with their characterization exposed on their webpage as well as the explanations given to me during the online calls we had before meeting. A recurring thought that came to mind while building it was how to be accountable for the potential consequences this could bring. Several personal conversations took place and many comments about the way the organization works were mentioned in confidence. Hence, I was dealing with very delicate information.

As a tool, having the visual map always as a reference of what to pay attention to was reassuring and useful to concentrate all my finding in one concrete way. However, the structure and content of the map did not provide me enough guidance while debriefing to prioritize the information.

RQ 1 How can the CVF support ReUSAR and SM?
- Translating the collected information into valuable and usable insights
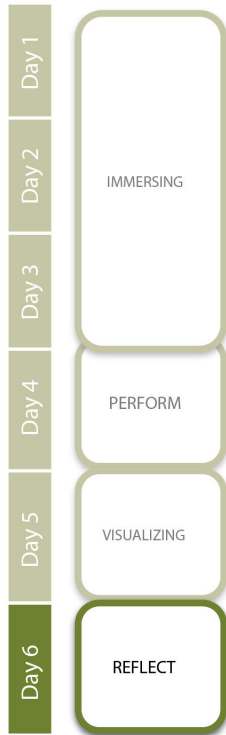- Making explicit aspects that might be overlooked by some members and significant for others

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Day 1
Day 2
Day 3
Day 4
Day 5
Day 6

IMMERSING

PERFORM

VISUALIZING

REFLECT

Figure 58

Once the map was ready, I printed it and brought it back to them. I chose a day in which I knew they were not collecting waste on the street, but working on site, and I tried to be there for the time they were almost ready so that we could talk. However, they had changed the schedule due to the weather conditions plus the need of some of the new members. Therefore I managed to share some time with them, but not really talk about the visual map.

Due to time constraints I could not go back, but I tried to reach my contact person to have a last call, but I could not get an answer. Learning from here are endless. I understand that the format of the deliverable is probably not familiar to them and their interest in collaborating with me faded once I left the country. This is due to the fact that physical interaction is the one that suits them the most and the other one is related to their current struggles. Because this year there are presidential elections, their relationship with Municipality and clients is constantly readjusting. Hence, they are focusing all their energy on those daily struggles to keep the cooperative going.

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Caro Martellotto, 2023

SIEMPRE MONTE

Day 1

Day 2

Day 3

IMMERSING

As my interactions with this initiative followed the ones with ReUSAR many of the conclusions drawn are based on comparing both experiences. The day to meet was not certain until the previous night, and the time was confirmed by a whatsapp message that same morning. Each member comes when they can and leave at whatever time they feel like. Tasks are distributed on the spot among the ones who are there.

They work here mostly because they believe in the cause of the project, different from ReUSar where most of the people work because they need to earn a living to living.

Personal conversations and connection is highly treasured and one aspect they invest time and effort in. When introducing myself, it was not easy to detach the idea of designer and a physical object as an outcome of my process.

The connection they have with the environment, the land, and their surroundings is powerful. Same with energy around them. While engaging in the initiative, I noticed a slight decrease in the level of challenge compared to ReUSAR. This was because I could more easily connect with the members of Siempre Monte due to their similar background and mindset

Sentipensando Siempre Monte?:

- Mind body and environment are constantly influencing the perception of each other.
- It creates ownership over the initiative as much as its members have
- Using their gear, their facilities
- Learning nature's cycles and timing

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
- It means a side job, a thing they do on the side because they have another job to economically sustain themselves
- It means connection with the environment
- It means a political stance like: opposition with soja producers; engaging with SH who share their views.
- Working towards something bigger "illuminating"
- Awareness of the environment and ist flows: Organic flows of work, energy and materials.> using these on your favour
- It is a necessary asset, but more expensive in the short term than linearity. Therefore, it does not seem competitive

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Day 1

Day 2

Day 3

IMMERSING

Figure 62

I got to participate in the production of the prototype as well as in the meetings of the research team.

Most of them are able to work on the project thanks to funding they get from the government, and other institutions. Therefore, they are constantly dividing energy, time and resources between actually researching and getting funding.

There is no concrete leader, but there some people who usually suggest what needs to be done and how to approach it. They are open to listen to a different perspective

Dilemma

"Conseguir líneas de financiamiento requiere mucha inversión de tiempo y esfuerzo que a veces le saco al proyecto en sí"

"Getting funding requires a lot of investment of time and effort that I sometimes take away from the project itself."

Getting funding for the project — Working on the project itself

Sentipensando SM:
- sharing mate and snacks
- Talking about myself, who am I, where I come from

RQ1:
- Many of the skills we have as strategic designers could help them ensure alignment towards the desired impact. hence, triggering concrete strategic design interventions and actions

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
- A "trending topic" mainly in the academic world.
- An opportunity to get funding for projects
- A common aspect that brings diverse disciplines together.
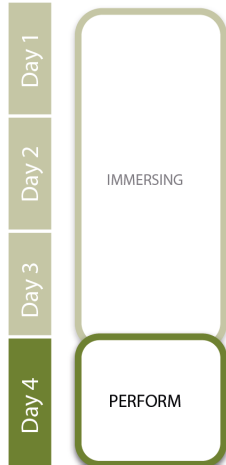
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Day 1

Day 2

Day 3

Day 4

IMMERSING

PERFORM

Figure 63

shot on moto g22

Because of their fluid organization, it was harder than with ReUSAR to define dates and ways of working. However, it was easier to explain them what I was doing there and set expectations.

Since they don't have any indoor space where we could meet, I found a place they could still feel familiar. The meeting started with 5 participants and ended with 7 with very different roles in the community. This allowed for very insightful and new conversations or everyone. Most of them felt really comfortable with the set up and activities.
 For the one or two who were not really familiar with using post its, the ice breaking first questions was key to get them drawing and openly expressing themselves. From my previous conversations I knew they felt comfortable expressing their ideas and they had a lot to say. They were more than eager to collaborate from the very beginning of our interaction.

RQ 1 Proyecto Siempre Monte?:

- analyzing the Strategic organization:
- 'stopping the ball' for a moment and reflecting. Creating spaces for conversations to happen, ensure alignment of expectations and actions

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
- The most sustainable way known (so far) to   organize our life and resources within the current system
- Understanding the changes and the constant adaptation of the planet

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Day 1

Day 2

Day 3

Day 4

IMMERSING

PERFORM

INTEGRANTES
LO MEJOR DE ESTE MES:
SOY PARTE PORQUE...

MODO de TRABAJO
DECISIONES   MODELO ECONOMICO
JERARQUIA
IMPACTO
COMUNICACION

The session was useful for them as a moment and space to stop doing but still think and talk together. Many questions different members had popped up, new connections among the members were created.

Talking about concrete cases was highly fruitful to find experiential nuances and avoid theoretical or idealized descriptions.

Emotional dilemma

"A veces somos tan orgánicos que nos compostamos"
"Sometimes we are so organic that we compost ourselves"

Organic performance   Being efficient

Sentipensando SM:
- Allowing time for reflection
- Being present physically and mentally

RQ 1 :

- Posing the right questions.
- Providing a safe space for them to question themselves.
- Pacing and structuring the approach of complex topics

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
- Self Awareness
- Strategic economic model to address environmental issues that today the state does not pay attention to because it is not profitable. Means to an end: environmental remediation
- Getting rid of our anthropocentric egocentrism: (We destroyed and now it is up to us to reestablish EVERYTHING)...we are part of a very complex system.

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Figure 65
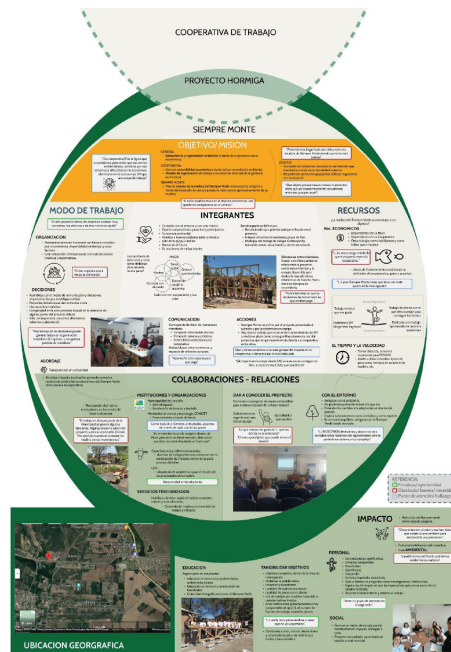
Being the second map I am building, I was able to apply some learnings from the previous experience. This map acted for me as a reflection phase, just like what the session aims to be for the initiative. Once again I found it useful, but as a tool it could provide more guidance in relation to how to prioritize and to ensure it does not become descriptive. Another very important aspect I realized while building it is that having a clear idea of who is going to read and use this is key. Not only to use the appropriate language, but also to be sure about which information is already known by the reader.

I had to send them a digital version of this map because I could only finish it once I was back in NL. Different to ReUSAR, this initiative added me to their whatsapp group so it was easier to stay in touch with them and updated as regards their progress.

For a better visualization of this map, refer
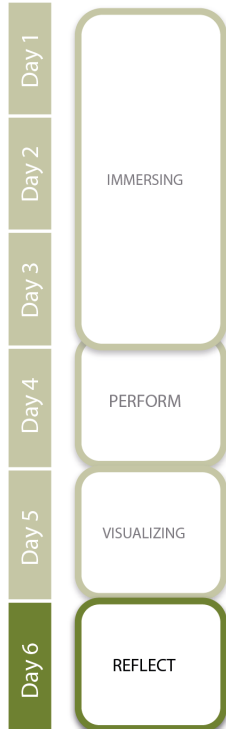
Sentipensando SM:
- Intentional listening

RQ 1 :

- explicitly exposing the diversity and complexity of the initiative in a concrete and useful way.

Day 1
Day 2
Day 3
Day 4
Day 5

IMMERSING

PERFORM

VISUALIZING

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Day 1

Day 2

Day 3

Day 4

Day 5

Day 6

IMMERSING

PERFORM

VISUALIZING

REFLECT

Sentipensando SM:
- Sharing my perspective of experiences
- Being challenged in my "field of expertise"

RQ 1?:

- Setting the conditions for certain conversations to happen
- Ask the right questions or pose the right triggers and bring the necessary material for them to discuss goals
- translate all these discussions into actions. Once we have talked and reflected, what now?
- Condense all the insights in one single document accessible by all of them.

This activity took place a couple of weeks after our reflective session which allowed me to debrief by myself before talking to them. It was also done this way to evaluate with them after some time, not only the short but also medium term effects the intervention had.

Reaching out to them to have this last conversation was easier that ReUSAR. My assumption is that this is the case because I could reach out to all of them and not just one person, which gives them freedom to answer only if and when interested. Moreover, they felt more impact in my intervention, and since some if them are experienced in the academic domain, they were also interested in giving something to my project.

These conversations were quite reassuring for most of my findings. Mainly in relation to the impact the session had on them as well as around the visual map as a final deliverable.

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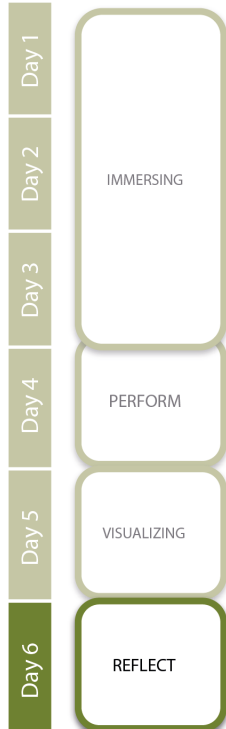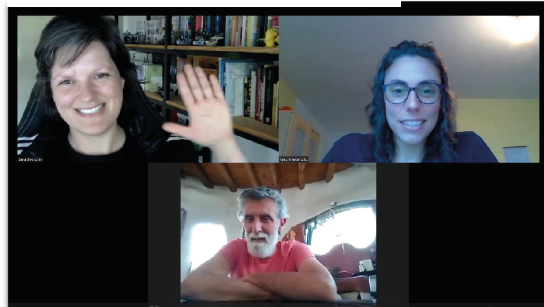|	
Day 1	
Day 2	IMMERSING
Day 3	
Day 4	PERFORM
Day 5	VISUALIZING
Day 6	REFLECT

Figure 67.

RQ 1?:

- Creating awareness around the importance of having plenaries to think and discuss the initiative as a priority in their agenda.
- translating into actionable and concrete steps or elements the findings of the session. In order to avoid creating awareness and with this, adding another concern in their minds.

Sentipensando SM:
- Empathizing
- Understanding their concerns,
- Looking back, remembering, re-processing

The main points I confirmed were about the impact of the conversations, the different perspectives and aspects touched upon and the importance of such a space. It was also insightful to hear that creating awareness around the need to be aligned and the relevance to include these kind of activities in their agenda, is already helpful for them. However, one of the members mentioned that he felt that something had been moved, shaken in a very interesting way, but then I left and they were left without really knowing what to do with all those insights they got.

When it comes to the visual map, some of them didn't even notice it on the whatsapp group, some opened it and closed it right away and only two tried to read it. The format was meant to be printed, therefore it was not comfortable to read the map from their phone. On top of that, it created a bit of an overwhelming feeling because of the overload of information all on one page.

These conversations were also useful to confirm most of my conclusions around how the context affects them preventing them from doing this kind of activities by themselves.

The detailed analysis of this meetings can be found in the appendix section xx.

Caro Martellotto, 2023

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Chapter 6: Insights of ReUSAR and Siempre Monte

All the insights gained about the initiatives during the AR process were translated onto the CV map, which was intended for delivery to the initiative members during the final phase of the AR process. As the maps presented in the previous section were developed in Spanish, you will find in this section a detailed version of all the findings about each initiative explained according to the layers of the CVF in English. These insights were used to complete the Best Practices format presented in section 6.3 of the report.

ReUSAR
In the following lines, the main insights gained from this experience are exposed following the themes of the visual map: members, External collaborations, working mode, resources and impact. In the latter part of this concluding section, a debriefing is conducted regarding the tool's application, highlighting the relevant aspects to consider for the subsequent session with the next initiative.

Members
Most of them are part of it because they need income, and this offers a great opportunity to combine with another job or family responsibilities. This is especially true for women, as men often have better-paid alternatives, such as working at construction sites. Despite occasional gossip and disagreements, there is a strong sense of community among them, and they support each other. Over time, these dynamics lead to the development of unspoken rules that characterize the overall functioning of the group.

Collaborations-Associations:
They are accustomed to collaborating with external stakeholders, including clients, civil servants, neighbors, and more. I understand that this openness is influenced by the cultural context of the country and is further reinforced by their economic challenges. This not only leads them to seek solutions to their problems in relation to their neighbors and family but also evokes empathetic responses toward those in their vicinity.
Most of their discussions regarding the initiative's collaborations center on their dependence on the Municipality and the delays in receiving payments.

Working mode
Even though they describe themselves as a horizontal organization, I observed that they exhibit a hierarchical structure in their decision-making process and group organization. Due to the communication and decision-making methods they employ, along with their efforts to ensure inclusivity, their organization could be classified as democratic. Within this framework, I noticed varying perceptions regarding the decision-making process, which is pivotal given the daily nature of their decisions and their impact on both daily tasks and the overall direction of the community. Some members do feel like they have a voice, but many others do not really feel heard or do not feel comfortable raising specific issues in certain conditions. This group feels and acts more like employees than equal members (as they are called: "compañeros"). They consider it a job, because they depend on this income to survive. Therefore, circularity seems to serve more as a frame for them to solve urgent needs: income and social support.

Resources:
Machines and infrastructure were frequently highlighted as facilitators of their activities, simultaneously functioning as double-edged tools. These components are vital for their operations, but given that they are supplied by the Municipality, they entail a significant level of dependency on it. They explain the lack of resources or their inaccurate and bad performance by the political implications ReUSAR's activities create. Their resourceful mindset enables them to address various resource gaps by adapting elements they encounter during their street collections. Once more, this is not something they do solely here; it's

ingrained in their lifestyle.

Impact:
Undoubtedly, their organization generates value across a wide range of areas, including cultural, economic, political, social, and environmental, affecting various levels from the city to neighborhoods and individuals. Interestingly, when discussing the concept of a circular economy, they tend to focus on the environmental impact they create, while their contributions to social and cultural aspects play a significant role in transitioning to a more sustainable system. There is a clear influence from the external stakeholders' interest on which of these values they value and they way they measure them, which is usually in a very quantitative way. The most unexpected finding in this realm is around the values created at a personal level. This initiative provides them with a sense of belonging, purpose, a meaningful job beyond just earning an income, an opportunity to learn about sustainability, and recognition from neighbors with whom they might not interact otherwise.
The adoption of these values by each member varies significantly based on their educational background, life expectations, and context. Some members are deeply invested in making the most out of this opportunity by connecting the initiative's values to their homes, families, and more. On the other hand, some members are more focused on the economic benefits they can gain from it.

Siempre Monte
As my interactions with this initiative followed the ones with ReUSAR many of the conclusions drawn are based on comparing both experiences.

Siempre Monte is a project initiated by members of the Proyecto Hormiga community, who are also involved in other initiatives, as explained in Chapter 3. Despite the distinct goals, resources, and working methods of each initiative, the fact that many members are part of both makes it challenging to discuss one without inevitably referencing the other.

Members: The group is composed by experts in the most diverse disciplines from architects and urbanists to engineers, biologists and agroecologists. They are implicitly separated into two main groups. One composed by those who are more active in the field, currently building with the wood, and those who belong to the academic realm currently researching different aspects of the topic.
They define themselves as activists, as sustainability champions. Therefore, this initiative is considered as a materialization, a way to take action towards their vision of what they want the world to be like. Each of them is eager to bring their knowledge, time and energy because they are passionate about the cause the initiative embodies. However, many of their actions are defined by the subsides they find to sustain themselves and the contextual circumstances such as available resources and their other tasks.
Sometimes, different perceptions on the group as a whole and in relation to the cooperative creates tensions, mainly between those who are part of both groups and those who are only part of Siempre Monte.

Working mode:They have a horizontal organization with very organic ways of working. As mentioned, their participation is mainly out of passion, therefore for some of them this is on the side of their job, family and other activities. Some other members managed to obtain subsidies from the government or research institutions, enabling them to devote even more time and dedication. This is leading to significant differentiation in terms of roles and influence when it comes to making major decisions (and even causing the departure of some of them).

Collaborations and associations: Once more, the Municipality emerges as a pivotal stakeholder, enabling them through the provision of infrastructure and resources. As seen with ReUSAR, political intesrts play a significant role here because they condition the accuracy and quality of those resources as well as modifications in legislations that can affect the community. One of the primary sources of tension with the Municipali-

ty stems from the clash between Siempre Monte's holistic approach and the siloed and bureaucratic manner in which the Municipality operates. Other important stakeholders are service suppliers who also enables and constrains them based on the level of connection, interest, and understanding of the project they have.

They view nature as nearly a stakeholder due to the extent of their interaction with it. It is an additional participant within this system, possessing its own interests, timing, and contributions—more than merely a contextual factor or a resource outlet.

Resources: Once again, economical resources are one of the most important for them in terms of how much space, time and energy they spend trying to get funding, manage what they get and more. creating several dilemmas and even the fear of phagocytosing the cooperative with this project due to their difficult to be economically sustainable. The other very relevant mentioned resource is time. Time as a vital resource, not easy to manage and with many factors conditioning the relationship with it. The biggest tension so far seems to be in the non-correlation between the time of the market, academia and nature.
A questions that was raise several times, but left open every time was: is the wood of Siempre Verde (Myoporum laetum) a resource or an end goal?

Impact: They demonstrated a strong awareness of their significance within the system and the impacts they generate (along with those they aspire to create). Value is generated across various fields, particularly in education, environment, and culture. In the case of ReUSAR, value is also generated at different levels, including the personal or individual (micro) level, which is currently the most prominent. Regardless of how much impact they create, it was noticeable that it is not always easy to communicate or translate this values for all the stakeholders due to the differences in interests and languages they use.

Chapter 6: Looking back into the experiences with the tools with ReUSAR and Siempre Monte

Once the experiences were over, conclusions were drawn on the usefulness and effectiveness of the tools I designed during the second phase of this project (redesigning the CVF). The following paragraphs exposed the main learnings as reflections on both tools the CR toolkit and the CV Map. Since their performance is highly dependent on the way they were applied, reflections are also made around the setting of the session and the way I delivered the final CV Map. This section is divided by initiative, first reflecting upon the experience with the tools with ReUSAR and later on with Siempre Monte.

ReUSAR
Reflections on the CR toolkit and the session
All in all, conversations were insightful. However, having just one hour per group wasn't sufficient for an in-depth exploration of specific topics that demanded some sensitization due to their delicate nature. Furthermore, some participants weren't entirely familiar with the components of the toolkit or the session's setup. This created some distance between the participants and me, requiring me to invest time in bridging that gap.

Even though some of them utilized the markers and post-its, it seemed like they were doing it without truly finding them very useful. Only for very specific questions did these tools come in handy, primarily for enhancing their narratives by pasting images, emojis, and occasionally making sketches. My assumption is that this occurred not only due to their unfamiliarity with these elements but also because of the way I was verbalizing the prompts. There is significant potential in employing the post-its to ensure everyone is participating and utilizing images to add an element of playfulness and relatability. However, the facilitator's prompts need to be clear regarding the how and why of their utilization.

Similarly, the prompts that were composed as incomplete sentences using the first person, were the most triggering for them compared to the ones with open questions or titles.

The modularity of the toolkit proved to be useful since I managed to even perform two sessions out of the material for one because the second one was not planned ahead. Within each session, timing and topics approached varied based on the participants. My days of immersion proved to be key when it came to choosing the participants.

Certainly, they also had a say in whether they wanted to participate or not, but having prior knowledge of them enabled me to ensure not only diversity among the participants but also compatibility. For instance, this involved dividing participants into two separate sessions: one for those who were relatives or closely associated with the founders and leaders, and another for those with differing opinions on various matters. This approach allowed for open and unrestricted discussions on a variety of topics. Nevertheless, it should be noted that a session involving the founders could have also been beneficial since they did not participate in any.

Based on the intake interviews I conducted with the initiators, it's likely that many of the gathered findings will reveal perspectives of the employees that the initiators are currently not taking into account. Drawing from my corporate world experience working with analogous boundary objects, these tools have the potential to serve as eye-openers or translators in this context, aiding in aligning the perspectives of different team members. However, this was not proven due to a loss of contact once I returned to The Netherlands.

Choosing not to record the session proved to be a wise decision on my part because all what recording entails would have created more resistance on their side to speak freely. However, this decision led to my local colleague having to concentrate solely on note-taking, and not participating much. On top of that, our notes and the post-its were all the input I had when debriefing afterwards.

Reflections on the CV Map
I should have allocated time while I was there to bring it in person and go over the content with them. The fact that I could not talk to them when I brought it is an error in the priorities in my planning (or rather the last adaptations I had to make).

However, as I was in the process of building it, I could already identify opportunities for interventions to address some of their challenges. When I shared these ideas with them, they expressed definite interest. Because developing an intervention or strategy to tackle their challenges would mean opening the scope of the project beyond the timeframe of this thesis, they were not considered in the planning. Consequently, there was insufficient time to fully develop such an intervention. Nevertheless, during informal conversations, we did brainstorm about the possibility of designing an intervention in a specific neighborhood. We even attempted to organize a pilot session for it. Unfortunately, we had to cancel the pilot session due to a local council event conflicting with our plans.

Regarding the design of this element, as mentioned in the previous section, there is significant room for improvement, as it currently leaves many aspects up to the discretion of the designer. While a certain degree of flexibility is necessary, an excessive amount can ultimately become counterproductive.

Utilizing the structure of the CV Map as a reference for what to focus on during each day of my participation with them proved to be valuable. It helped me uncover important information that was challenging to articulate during the collaborative sessions.

Siempre Monte:
Looking back into the toolkit and the session:
Insights with this community seem to have reached a deeper level. An assumption here is that such deeper level was reached thanks to the mi-

nor changes performed to the planning of the session and the tool itself, but mostly to the composition of the group who participated: members with different roles and responsibilities quite influential in the main decisions of the direction of the initiative. Furthermore, the participants' mindset and the extended time we could dedicate to this endeavor (2.5 hours compared to 1 hour with ReUSAR) also played an important role in achieving the depth observed.

The primary alterations to the tool included employing kraft paper instead of white paper as the background for work, revising the wording of the prompts, and determining the images to utilize. On top of that, in this case I was able to record the session which helped me perform a better debrief after it and gave my local colleague some more freedom to participate. He played a key role not only in content related aspects, but also making sure everyone was comfortable.

During the group dynamic, incredibly fruitful conversations took place. Since the community is characterized by a horizontal organization, the challenges, questions and opportunities mentioned were extremely impactful at a strategic level. The most interesting conversations happened around alignment between goals and activities, and alignment (or misalignment) of individual intentions and visions of the group, how decisions are taken inside the community and the initiative's relationship with the other projects of the community. For example, they realized the different perceptions they have around goals and time. Not only did they engage in discussions around those topics during the activity, but they also started (after the session) a written document were to explicit their views in order to find alignment.

What's more during our conversations and thanks to all the reflections, one concrete action for the future was defined between the initiative members and me. We understood that defining a clear strategic roadmap is necessary therefore, we had a short roadmap building session. Due to time and resources limitation, it was not possible to continue

with this activity within the framework of this graduation project. However, future meetings to further develop it were established.

Therefore, my immersion in their daily activities, meetings as well as the conversations during the session, proved that there is potential to derive concrete actions based on the findings.

During the "looking back" meeting we had online, one member highlighted that after our session, they did organize more than one meeting to talk about several topics that were raised with me. Especially regarding short, medium, and long-term objectives. They sis appreciate the questions and triggers used during the session as nudges to explicitly talk about aspects that are usually taken for granted or touch upon topics they usually discuss, but from different perspective. However, one other member explicitly mentioned that he felt the session shook and moved a lot inside their organization, but nothing concrete really happened afterwards. Regardless on those meetings and documents they tried to create, he felt lost in terms of what to do with all the findings from the session.. He said that it would have been useful to translate all those insightful conversations into concrete actions.

Reflections on the CV Map
Similar to what happened with ReUSAR, the delivery of the visual map should have been more relevant in my planification. I sent it on the Whatsapp group because I did not have the chance to bring it to them in person as explained in the debrief (Appendix D, section "Debrief experiences on the field"). On the whatsapp group I had some reactions and members mentioned particularly one aspect that called their attention, but they did not look into it in detail.

The main points highlighted by the participant were around the inappropriate format I chose. Since my first idea was to deliver it printed and in person, I developed a big one-pager, but sending it digitally, the format could have been adapted to something easy to read on their

phone. However, the concept of condensing all the insights in one document was definitely appreciated together with the color coding employed to highlight pain points and opportunities.
Based on these reactions in addition to my working experience in dealing with these kinds of boundary objects, presenting the map to them and not just delivering it would have been a more appropriate approach. On top of that, having more flexibility in the format to adapt it to the virtual environment is another aspect that could be improved. Therefore, planning the delivery of this outcome is something that needs a lot of attention and energy being as important as the session itself to prevent adding one more loose element in their already busy agendas.

When considering the structure of the CV Map as a debriefing tool for the facilitator, there is still ample room for improvement. While it was intentionally designed to provide a sense of freedom and flexibility, I found that this freedom sometimes became excessive. Consequently, in order for this tool to serve as an effective structured method for debriefing, further iterations are required.

Appendix E

Chapter 7: Personal and group reflections

To address both research questions, I conducted a group reflection online session involving three local designers, including one who had been involved in the intervention with Siempre Monte, as well as an analysis on the wall (Sanders & Jan Stappers, 2019). The primary source of information employed during these sessions were the Early Insights collected during the Action Research phase. As a starting point, these insights were categorized based on which research questions they inform as depicted in figure 34.

Figure 34: Organization of the insights collected during the experiences of the field before the group reflective session and the analysis on the wall.
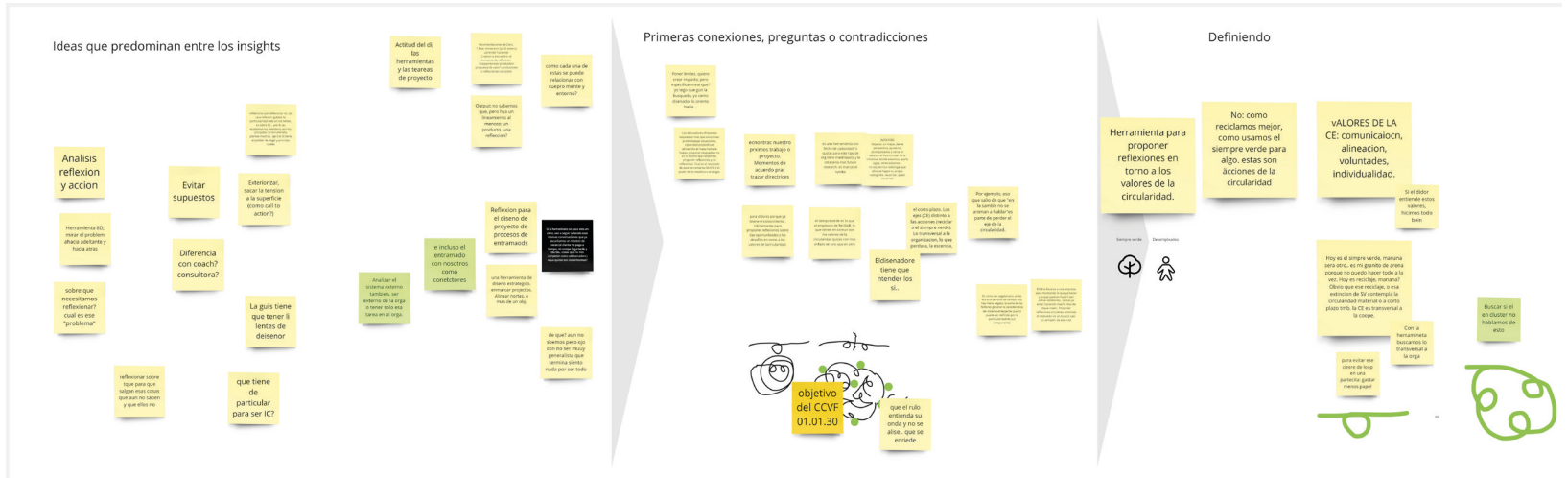
Figure 35: Outcome of the group session with local designers held online using Miro board during the video call.

During the group reflective session, the first phase of the session consisted of unveiling the predominant ideas among all the insights as shown on the left section of Figure 35. Later on, connection, questions as contradictions were derived, casting light on the manifestations of CE in each initiative (middle section of figure 35). The conclusions of this phase are discussed in the following pages. Finally, all the findings were condensed into two main ideas expressing the space for designers to positively influence this environment: strategic organization and designers as mediators within and among stakeholders thanks to our capacity to work with complex systems. These aspects are further explored in the following pages in section "Answering RQ1: identifying the space for design".

With the gained understanding from that activity, I also performed an analysis on the wall (Sanders & Jan Stappers, 2019) to cast light on both

RQs clustering the early insights. Numerous clusters answering them were identified as shown in Figure 36 and 37. All the insights gathered during this analysis are elaborated upon in the following paragraphs, separated by research question.

Encouraging Sentipensante approach by the facilitators

Preparation:
flexibility is key
Customizing the material and the activity
use materials relatable to participants

Allowing room for intuition, feeling the moment

Showing new perspectives, of theirselves

Showing new perspective of their daily discussions, concerns and actions

Uncovering tensions like emotional and social dilemmas(*)

Create awareness of missalignment and deviations.

Creating awareness around the importance of having plenaries to think and discuss the initiative as a priority in their agenda

Levergaging personal experiences as valuable insights to organise the initiaitve

align and creating awareness aroudn disagreements or misunderstandings

As a boundary object to connect with other stakeholdersde

Connecting wit local designers

Creating multi stakeholders conversations.

Providing curated triggers for the appropiate conversations in the appropiate tone

Creating a safe space for the uncomfortable topics to be brought up.

'stopping the ball' for a moment and reflecting. Creating spaces for conversations to happen, ensure alignment of expectations and actions

Providing a safe space for them to question themselves.

Triggering concrete interventions, helping them find the waht now

Translating the collected information into valuable and usable insights

translating into actionable and concrete steps or elements the findings of the session. In order to avoid creating awareness and with this, adding another concern in their minds.

translate all these discussions into actions. Once we have talked and reflected, what now?

Developing strategies to further leverage the positive environmental impact they create (almost as a unintended conseauence)

hence, triggering concrete strategic design interventions and actions

Providing them with a concrete result of such conversations

Condense all the insights in one single document accessible by all of them.

Suggesting value proposition with Siempre Verde wood

Making explicit aspects that are taken for granted or difficult to measure.r

Making explicit aspects that might be overlooked by some members and significant for others

explicitly exposing the diversity and complexity of the initiative in a concrete and useful way.

Making the complexity of the initaitve accesible for all members

analyzing the Strategic organization and roadmap

Pacing and structuring the approach of complex topics

Posing the right questions.

Ask the right questions or pose the right triggers and bring the necessary material for them to discuss goals

Setting the conditions for certain conversations to happen

Systemic understanding: inwards and outwards.

identifying the values and tensions it creates in the metasystem and the SH affected.

Reviewing the alignment between the actions, values and ways of working with CE.. (the WHAT, the HOW and the WHY)

RQ 1 How can the CVF support ReUSAR and SM?

Figure 36: OAnalysis on the wall, clusters informing RQ1

INlcusion o fdiversity (pluriverse)

Means cooperation and collaboration between citizens and Municipality, neighbours and private companies

Horizontal organization

It means (and requires) inclusion of voices, ideas. Diversity if people

A mindset of awareness and connection

Working towards something bigger "illuminating"

Getting rid of our anthropocentric egocentrism: (We destroyed and now it is up to us to reestablish EVERYTHING)...we are part of a very complex system.

Self Awareness

It means connection with the environment

Awareness of the environment and ist flows: Organic flows of work, energy and materials.> using these on your favour

Understanding the changes and the constant adaptation of the planet

A common ground that brings people with similar mindset together

Political campaign

It means a political stance like: opposition with soja producers; engaging with SH who share their views.

A common aspect that brings diverse disciplines together.

It's a politcial statement

A hints of a possible sustainable system within the current unsustainable system

Means just words if it's not economically affordable

Means breaking the silos of Municipality and other institutions

It is a necessary asset, but more expensive in the short term than linearity. Therefore, it does not seem competitive

It means a side job, a thing they do on the side because they have another job to economically sustain themselves

Short term solution to current problems

Recycling

In means a solution to a visible problem: waste on the street present, not future

The most sustainable way known (so far) to organize our life and resources within the current system

Strategic economic model to address environmental issues that today the state does not pay attention to because it is not

A framework on which to frame and communicate projects

Means equal job opportunities for men and women

A framework or contextual opportunity to earn a living:

A "trending topic" mainly in the academic world.

An opportunity to get funding for projects

RQ 2: What does circularity/ circular economy mean in Córdoba, Argentina?
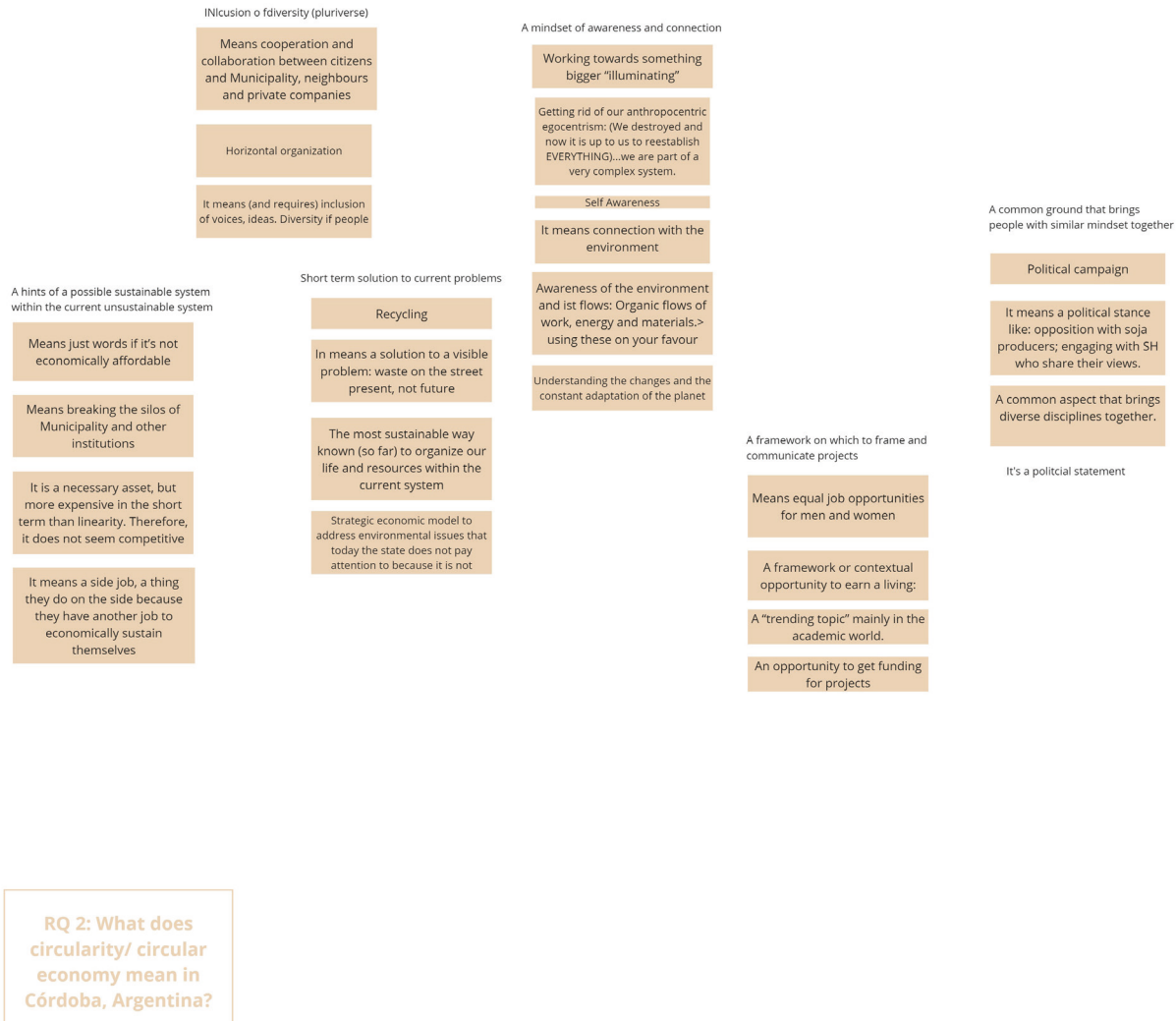
Figure 37: OAnalysis on the wall, clusters informing RQ2

Chapter 7: Answering RQ2- CE in ReUSAR and Siempre Monte

While understanding economy as a means to organize and mediate society with the environment (Velenturf & Purnell, 2021) both ReUSAR and Siempre Monte project pay great attention to this element as it is a highly influential variable in their daily activities. This is undeniably a characteristic that conditions their capacity to project themselves into the future as well as their daily actions due to the political and economic instability of the context (País, 2021). However their raison d'être does includes all the values of circularity defined in the theoretical framework -optimizing the use of resources (Carenzo et al., 2022), preserving and increasing the natural capital (Carenzo et al., 2022), and promoting a lifestyle and mindset based on respecting people and nature(Cerdá & Khalilova, n.d.)-.

Both initiatives are clearly working towards CE, but with the focus of their impact in different aspects. ReUSAR born as a workers' cooperative from a political group, is more focused on the social aspect of it whereas SM was born from environmental academic activists and concentrates its efforts on creating environmental impact.

It is important to highlight that in ReUSAR there are diverse perceptions of Circular Economy among the members. The different interpretations of CE can be attributed not only to the fact that it's an ambiguous term, as mentioned in the theoretical framework, but also to how different groups experience it.
For the founders of ReUSAR, CE is a way to address two pressing challenges after COVID: high unemployment rates and streets filled with trash. Therefore, they see CE as a means to tackle both of these issues. On the other hand, for many of the waste collectors, CE is a job. While they do have a positive impact on the environment, the city, and their culture, their primary goal is to earn a living to meet their basic needs. For them, CE is more contextual, serving as a way to make a living. This

is particularly true for women, who often struggle to find job opportunities with similar conditions in other fields compared to men. As one participant noted, "For men, it is more convenient to work in the construction industry." This competition in the job market, including roles like construction work and domestic employment, contributes to a high turnover rate, largely driven by wage considerations.

When analyzing the positive impact this initiative has in the rest of the city, education and inclusivity are the most relevant ones along with aesthetic and environmental. The latter are a direct consequence of their collection of discarded materials. Whereas the first two (education and inclusivity) derive from their interaction with other citizens, their own learning process around the values of circularity and how they spread this mindset to the people around them. These conclusions derive from my experience, conversations with them and neighbors in the area where they are located. However, almost none of them used the word circularity or circular economy more than when explaining the framing of the cooperative in the municipality's subsidy line. Task performed by only one of the initiators. Abstracting this to a more theoretical level, we can assume that they are adding loops to a linear system with their actions

On the other hand, the members of Siempre Monte are environmental activists, which is why the initiative was established, and their objective is environmental restoration. Hence, they place particular emphasis on preserving and enhancing the natural capital (Carenzo et al., 2022), making it their most prominent value within the principles of circularity. In this context, they consider CE as a means to create a value proposition to eradicate an exogenous tree species while being competitive in the linear economy that predominates. In other words, they are striving to develop a product (constructive blocks for housing, drumsticks, etc.) to promote the harvesting of Myoporum laetum (Siempre Verde). In this process they are making an effort to incorporate circularity principles into every production stage of these items and every action within

the initiative's community.

They employ the terms circularity (circularidad) and circular economy (economia circular) to frame their projects in order to get funding from research institutions as well as to participate in conferences and connect with other research groups working in the same field. However, their main point of academic connection with other researchers is Myoporum laetum as a species because of the wide range of projects utilizing the term CE and their specific but holistic approach to the invasive species.

In conclusion, whether or not they explicitly use the term "circularity," both cases exhibit characteristics of it in their actions and objectives. This is the case not only for WHAT they do, but also the HOW they do. A clear example is the intention by both groups to include all voices and as many different perspectives as possible. This is aligned to what Escobar (2019) names as the pluriverse. Which is basically the coexistence of "multiple "(...) worldviews, ontologies, and epistemologies coexist". Primarily, considering nature as a key voice in this context, by respecting its cycles, needs and possibilities.

Moreover, in both cases, using the terms Circular Economy has allowed them to get funding for the project, thanks to the increasing attention the market, academia and the government are paying to it.

In this regard, and going back to what was mentioned in the theoretical framework about 1 million Argentine families barely eating thanks to collecting waste, is that the question of what Argentinean circularity should look like? If we eliminate all the waste, a high percentage of our society is left without a basic income. how to reframe the question to avoid that while working towards a more sustainable system?

All in all, we can conclude that the following aspects have emerged as the main manifestations and meaning CE has for ReUSAR and Siempre

Monte.

- It is a means to achieve short term solution to current problems with future perspective
- It requires the inclusion of diversity (pluriverse)
- It embodies a mindset of awareness and connection with oneself and the surroundings
- It acts as a framework on which to frame and communicate projects
- It serves as common ground that brings people with similar mindset together
- It's a means to materialize activism creating sense of belonging
- It's an ideological/political statement
- It provides hints of a possible sustainable system within the current unsustainable system
- It is sustainable way to organize people and resources while being competitive in the current market
- It has different perceptions being even a contextual factor

Chapter 7: Answering RQ1-Main challenges ReUSAR and Siempre Monte are facing.

Taking into account the manifestations of Circular Economy (CE) mentioned in the previous section and in order to comprehend the potential space for the CVF method to support Siempre Monte and ReUSAR, the main challenges these initiatives are currently facing are identified. These challenges are then analyzed in relation to the potential contributions that designers can make to address them. Lastly the usefulness of the CVF method related to those challenges and opportunities is analyzed.

The challenge most frequently mentioned by ReUSAR and Siempre Monte is economic unsustainability. However, during this action research I considered economic (un)sustainability as a symptom to try to dive deep and uncover its underlying causes. It is undeniable that the contextual situation of the country does play a significant role in

which achieving stability is not an easy task. Devaluation, short term agreements with the government and the lack of a market willing to pay extra for sustainable products or services (L. Becerra, personal communication, May 5, 2023) creates a strong feeling of uncertainty and structural instability in these organizations. To address this challenge, they are constantly on the lookout for subsidies, clients, and other sources of income, which has two main consequences. They invest significant amounts of energy and time in these searches, often resulting in short-term solutions that serve as temporary fixes to their problem. On top of that, in many cases their goals end up highly affected by the conditions of these subsidies deviating them from their original motivation.

On the other hand, in many cases, the requirements to be able to get those "band aids" makes them deviate from their main goal.

Some other challenges they are facing and those in which there is more potential for our discipline to positively affect are:

- Blind proactivity: Members exhibit a great level of proactivity within the initiative, consistently engaging in various activities with enthusiasm and dedication. However, this proactivity sometime occurs without any pause for reflection and critical analysis of the activities' true relevance to their overarching objectives. While their proactivity is undoubtedly positive and reflects their commitment, it can unintentionally lead to challenges if not consistently aligned with the appropriate directions and goals of the initiative
- From intentions to actions: On a similar note to the blind proactivity mentioned earlier, but in the exact opposite direction, translating their well-intentioned goals into concrete actions presents its own set of challenges. While the initiative is driven by a clear sense of purpose and aspiration, there can be difficulties in effectively operationalizing these intentions
- Social dilemmas: some personal gains or intenterests are in constant tension with those of the initiative and vice versa.

- Creating a new system from the old system. Building on Arturo Escobar's (2018) idea of how we are creating a new system while still living in the 'old one', these initiatives find it quite challenging to embrace some of the values of CE in the current capitalistic system. For example, respecting natural cycles while trying to create profit in the market to survive.
- Internal (miss)communication: Several confusions and distortions in the initiative are caused by errors or uncertainty in where, how (language and channels), and when to communicate what.
- External communication: how to express the value they create to stakeholders with different interests and different 'languages' makes it hard for them to network and cooperate as well as gain recognition.

In order to link these challenges to the potentialities of the CVF as a design method, the following section exposes the space for design as opportunities for intervention from the discipline

Chapter 7: Answering RQ1-Identifying the space for design.

Following the group reflections held with local designers, two main opportunities for design were identified in the context of this project in which the CVF can serve as a valuable tool. One of these opportunities involves the strategic organization of the initiative, where critical elements such as defining a roadmap and differentiating between actions, goals, and values are essential. As explained in the previous section, both initiatives focus on specific values of circularity with their own organization and with different perceptions. Figure 38 exposes both initiative's focus together with the aligned goals, actions and derived challenges or risks .
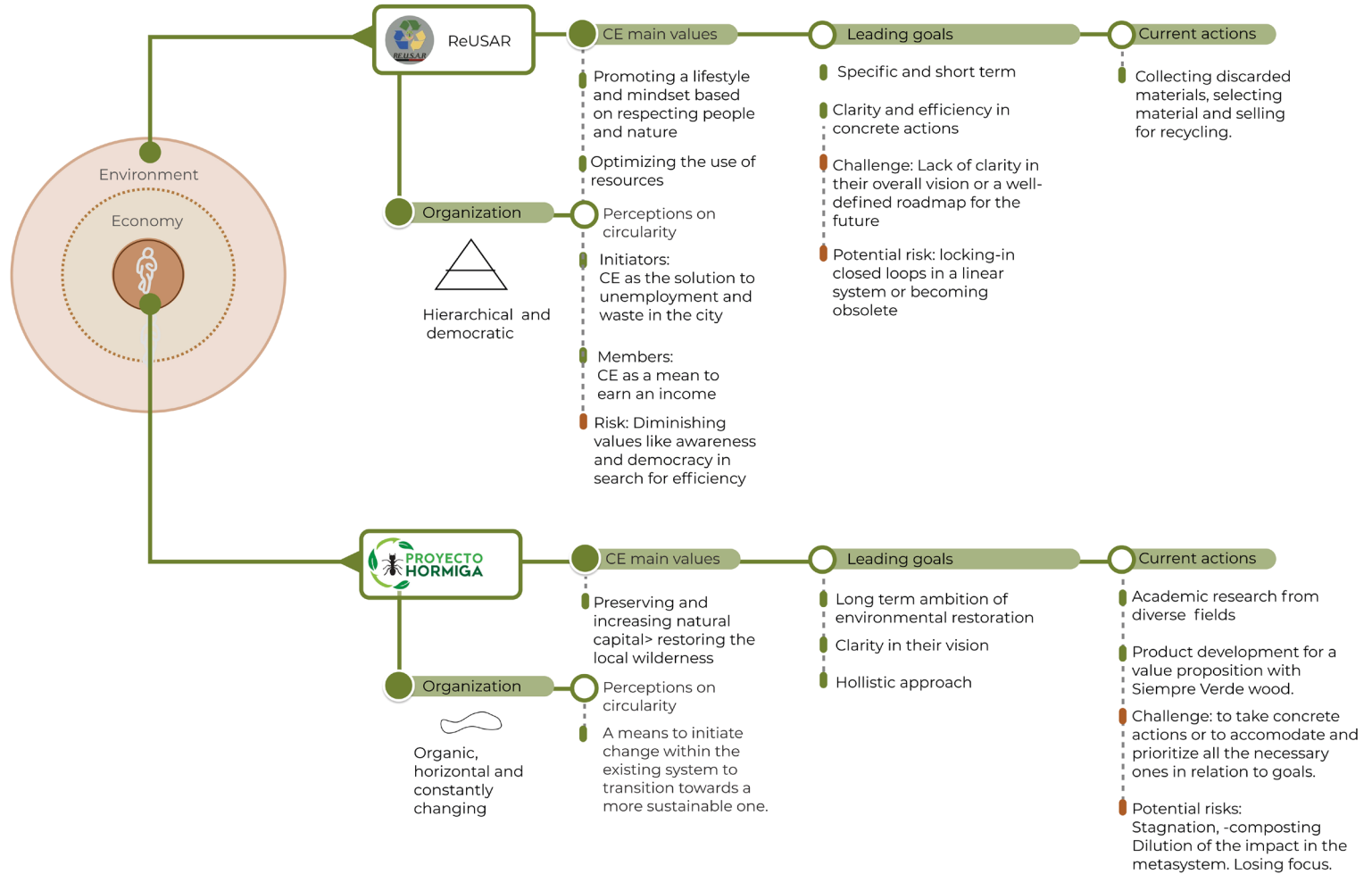
ReUSAR

CE main values

- Promoting a lifestyle and mindset based on respecting people and nature
- Optimizing the use of resources

Organization

Hierarchical and democratic

Perceptions on circularity

- Initiators:
CE as the solution to unemployment and waste in the city

- Members:
CE as a mean to earn an income

- Risk: Diminishing values like awareness and democracy in search for efficiency

Leading goals

- Specific and short term
- Clarity and efficiency in concrete actions
- Challenge: Lack of clarity in their overall vision or a well-defined roadmap for the future
- Potential risk: locking-in closed loops in a linear system or becoming obsolete

Current actions

- Collecting discarded materials, selecting material and selling for recycling.

PROYECTO HORMIGA

CE main values

- Preserving and increasing natural capital> restoring the local wilderness

Organization

Organic, horizontal and constantly changing

Perceptions on circularity

- A means to initiate change within the existing system to transition towards a more sustainable one.

Leading goals

- Long term ambition of environmental restoration
- Clarity in their vision
- Hollistic approach

Current actions

- Academic research from diverse fields
- Product development for a value proposition with Siempre Verde wood.
- Challenge: to take concrete actions or to accomodate and prioritize all the necessary ones in relation to goals.
- Potential risks: Stagnation, -composting Dilution of the impact in the metasystem. Losing focus.

Environment

Economy

Figure 38: circular values, goals, actions and related challenges and risks of both participating initiatives

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The skills expert designers master in addition to the functionalities of the method, can bring positive impact by not only differentiating these, but also ensuring alignment among them. This is beneficial for the initiatives to achieve their goals and in general in the meta system in which they are immersed to achieve the desired transition.

Regarding Siempre Monte, although they have well-defined long-term goals and prioritize maintaining a horizontal organization and respecting natural cycles, their primary challenge lies in executing short-term, tangible actions. (This is in addition to the need to navigate a demanding agenda to ensure financial stability while adapting to the ever-changing political and economic context). Hence, the values of circularity in their actions are very well ensured by them, but those actions don't always reach successful outcomes due to a lack of concrete implementation. In the words of one of the participants: "It's so organic that it sometimes composts." "Es tan orgánico que a veces se composta." (Participant M) Moreover, another pain point detected during the interventions in relation to their way or working is the different expectations and intentions of the members. The most striking insight around this misalignment is that it was not always detected by them. In fact, the lack of alignment gets obscured or lost from view by the daily struggles and shorter term goals. These differences are another factor preventing them from moving forward at the necessary pace.

As mentioned by participant F. "when we had a subsidy that gave us a clear objective, a lot of things were accomplished" "Cuando teníamos un subsidio que nos daba un objetivo claro, se lograron muchas cosas." there are some external factors or internal attempts to align. However, several challenges and dangers come along with these experiences. One of the most important risks encountered when this task is triggered by external elements, such as subsidies, is losing the driving values of circularity in the adaptation to the conditions or requirements established by it. Another mentioned challenge faced when trying to internally align, is to find the space to do this, include all the voices and achieve

this in a time frame that makes sense for the project. The participants of Siempre Monte mentioned several times that including everyone in this process is quite intuitive which ends up consuming enormous amounts of time and energy. Whereas ReUSAR seemed to have found a more systematic way of doing it through assemblies. However, thanks to the in depth conversations triggered during the reflection sessions, many members admitted not feeling comfortable to bring up certain topics in that setting. Hence, not only understanding WHAT is necessary to align is important, but also HOW to deploy those actions.

This is why, an intervention that can support them in the alignment of expectations, their circular goals and actions has great potential to trigger a better and more impactful development of their projects.

Expanding upon Irwin et al., (2021) perspective of socio-technical systems as nested holons, and as previously elucidated in Chapter 3, Circular Initiatives (CIs) represent a system on their own while also being integral components of a highly intricate and extensive meta-system. Within this meta-system, CIs are deeply interconnected, giving rise to tensions, yet also deriving benefits from these interconnections. From this perspective, the second identified opportunity for design within this domain comes from its holistic and .

To put it more concrete, designer's capacity to work with complex systems, also becomes necessary to define for example, Siempre Monte's actions in the regime and landscape in which it is located. Due to their ambitions, goal and intentions while still being a niche actor, their efforts get diluted if they expect to take on the responsibility of the entire system with the complexity and multitude of actions that means.

As one of the participating Argentinian designers put it ""Each piece must know its place in the puzzle." Cada pieza debe conocer su lugar en el rompecabezas". (designer M.) This emphasizes the importance of each actor or stakeholder understanding its specific role for the entire system to function correctly. Achieving success in these opportunities necessitates strong connections with other stakeholders, clear and effec-

tive communication, and alignment of interests among the parties.
In the case of ReUSAR, it is essential to comprehend that the collection of discarded materials and their subsequent sale for recycling are short-term actions that align with their current context and contribute to making a meaningful contribution towards a more sustainable system. However, if the bigger picture is overlooked because of these actions, we will end up as Velenturf & Purnell (2021) put it "locking-in unsustainable material system" by assuming that since these groups need to collect waste in order to survive, we need waste in our system. Once again, we are working with CE as a means towards sustainability, not as an end in itself.

Chapter 7: Answering RQ1-Usefulness of the CVF for Siempre Monte and ReUSAR.

In summary, from the three basic conditions that need to be met to shape niches development according to De Koning et al., (2019), two of them have been identified as particularly challenging for ReUSAR and SM as depicted on figure 32.
From these, the CVF method has proved useful to tackle internal alignment through the employment of the toolbox as a material support for collaborative analysis and reflection among the members of the initiative. The resulting insights are to be outlined on a visual map with the potential to be used to reflect upon those conversations and trigger concrete actions. On top of that, as expressed by (Leclercq & Smit, 2023), this resulting visual map also has the potential to be employed as a boundary object connected with external stakeholders. Although this final aspect was not specifically addressed in this project, its potential remains strengthened.

After understanding these two main opportunities for intervention, in the following section a more detailed definition of the specific functions and modes in which the CVF can support the participating CIs through the application of the CR toolkit are outlined.
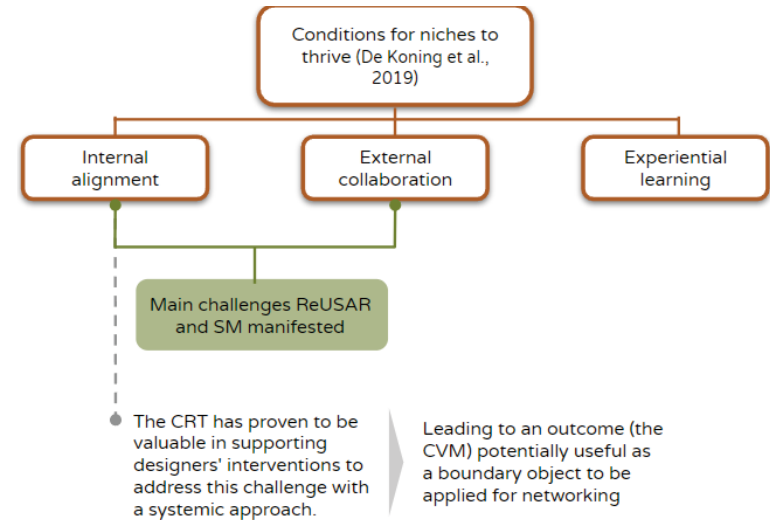

Figure 39: ReUSAR and SM's challenges in relation to the required conditions for niches to thrive according to De Koning et al., (2019) and Wolfram (2018)

The following modes and functions of the toolkit as a materialization of the CVR method have proved valuable to tackle the already mentioned challenge (Lack of internal alignment).

- Making the complexity of the initiative accessible for all members
- Making explicit aspects that are taken for granted or difficult to measure.
- Providing curated triggers for the appropriate conversations in the appropriate tone.
- Providing them with a concrete result of such conversation.
- Create awareness of misalignment and deviations.
- Showing new perspectives of themselves.
- Triggering concrete interventions, helping them find the "what now?."
- Systemic understanding: inwards and outwards. making explicit

    the values and tensions it creates in the metasystem and the SH affected.

- Reviewing the alignment between the actions, values and ways of working with CE..(the WHAT, the HOW and the WHY)

-

The experiences presented in the report demonstrate that not only are identifying actions to address these misalignments valuable, but also raising awareness about these pain points can have a significant impact on the members of the initiative.

Appendix F

Chapter 8: Guideline design process

This guideline is a translation of the insights and experiences collected in this project to make them more actionable for other practitioners, as well as to compliment the accessibility of the CR toolkit and visual map.

Understanding that this is not a straightforward and predefined project because it depends on the specific initiative and context, there is not a single and strict way to do this. Hence, this guideline contains the overarching principles and suggestions understood as the enablers for designers to support Argentinean CIs.

In this section the design process is outlined following the three main phases: (1)Definition, (2) Conceptualization, and (3) Development.

Definition:
During this phase, the design requirements were derived from various theoretical sources, my project experience, and the guiding sentipensante approach. The primary requirements include:
- Supportive/ non-prescriptive: It needs to guide the designer before, during and after the intervention with enough flexibility and resources to encourage the designer to feel-think and adapt correspondingly. It needs to cast light on the most appropriate approach for the intervention as a whole as well as the use of the complementary tools: the CR toolkit and CV visual map.
- Situated: content-wise it needs to be tailored to the particularities of Argentinean Circular initiatives in the current context of the country. and Technologically, it needs to be accessible in the particularities of the political and economical context of the country.
- Empowering: encourage the designer to gain experiential learning

through reflection in action and on actions (Schön, 1987)
- Encourage appropriate mindset: it needs to align with a more inclusive, empathetic, and contextually aware approach to design to enhance the potential of design in creating meaningful and impactful experiences for individuals and communities. This mindset will encourage designers to embrace the full spectrum of human experience and thought in their interventions.
- Unifier: To assist designers in carrying out this process with the CR toolkit and the CV map, it's essential to integrate them cohesively, enhancing their perception as a unified system.

Conceptualization
In order to define the concept of the design outcome, VIP methodology was employed as depicted in figure 40 on the following page.
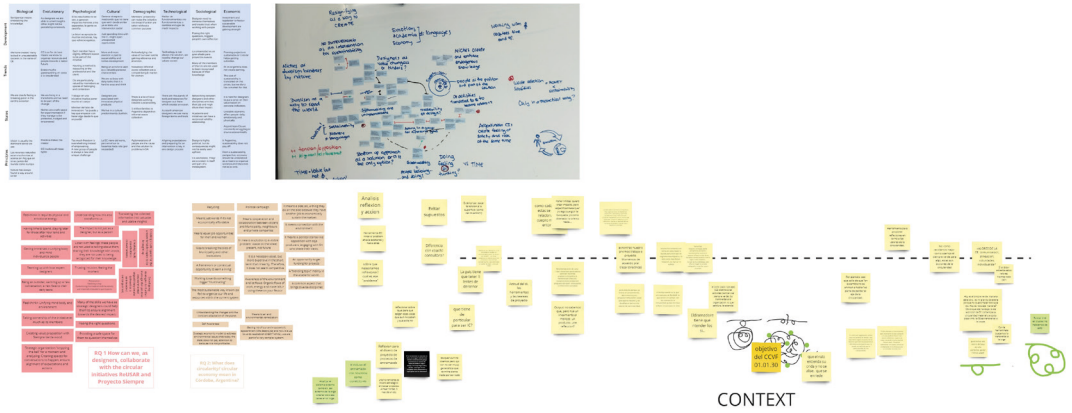
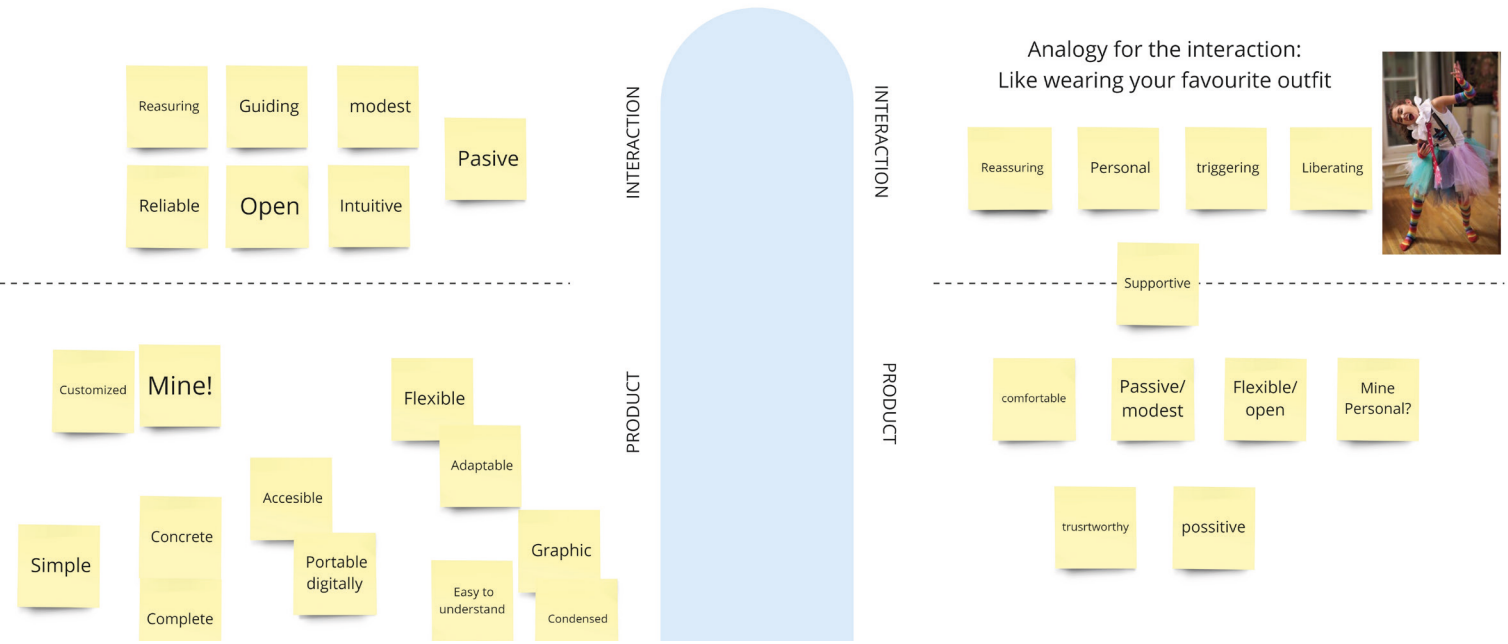**STATEMENT:** I want the designer to perform a collaborative X-ray

CONTEXT

INTERACTION

INTERACTION

Reasuring
Guiding
modest

Pasive

Reliable
Open
Intuitive

Analogy for the interaction:
Like wearing your favourite outfit

Reassuring
Personal
triggering
Liberating

Supportive

PRODUCT

PRODUCT

Customized
Mine!

Flexible

Accesible
Adaptable

Simple
Concrete
Portable digitally
Graphic

Complete
Easy to understand
Condensed

comfortable
Passive/ modest
Flexible/ open
Mine Personal?

trusrtworthy
possitive

Figure 40: VIP methodology applied to define the concept.

The outcome of this process is the concept of "cebando mates," which can be translated as "preparing mate" or "making mate." It refers to the process of preparing and sharing the traditional South American herbal infusion called mate. This metaphor can be employed by drawing an analogy between the components of mate and the CR toolkit and the CV map as elements that the guideline brings together to perform a specific activity. This analogy extends to the unwritten social rules around the practice of sharing mate, which align with the principles this guideline needs to convey in order to ensure the appropriate approach when working with the CVF in Argentina. Additionally, each of the elements of a mate kit has its own rules and ways of use ("tips and tops"), which align with the specifications on how to use each tool of the CVF. Figure 34 shows a representation of these correspondences.
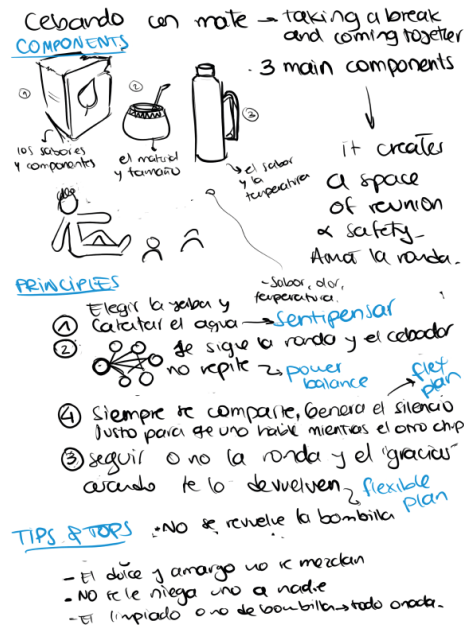
Figure 41: exploring the concept of the guideline in detail.

Development
During this phase several different formats for its materialization were considered through a brainstorm session as shown on figure 42.
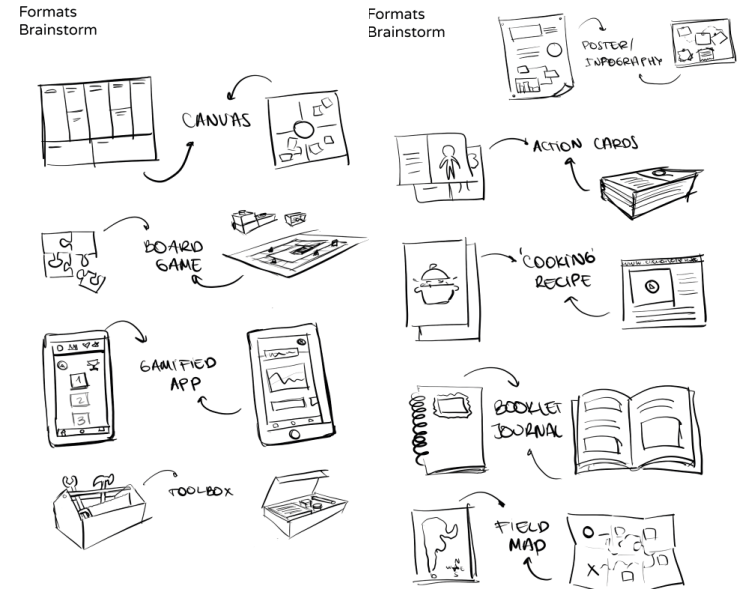

Figure 42: exploring the concept of the guideline in detail.

From these, the three most relevant ones were selected to further develop them: Action cards (on the left side), a digital App (in the middle) and a Physical booklet (on the right side). Figure 43 depicts the exploration made in each.
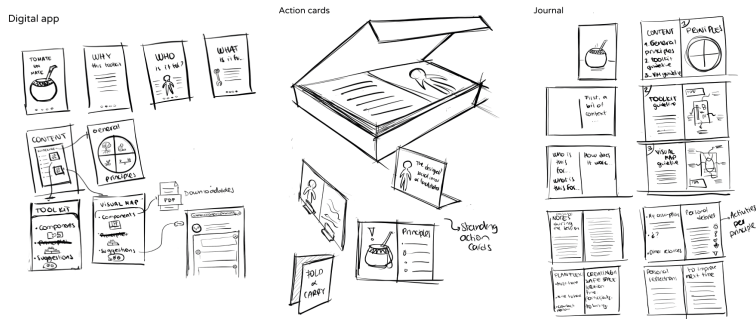
Figure 43: emage of the exploration of the concepts selected

These three were evaluated and compared based on accessibility, user experience, and content, as outlined in the following paragraphs.

Action cards
Accessibility: Easy to carry. No need for internet or any supportive device. It requires production, storage, transportation, packaging, etc. (as any material product). Requires the user to obtain it from an external party.
User experience: Physical playful interaction. They offer the content in a focused, simple and fast way. Limited space for content and lack of interactivity.
Content: modularity allows for some update, but it requires more resources and time than digital elements.

Digital app
Accessibility: Requires a device and internet connection. Easy to access from different devices and to have it at hand on a cellphone.
User experience: Interactive. Directly linked to Circular Community foundation website, to the downloadable files for the toolkit and visual map; and even to external resources. If used while interacting with peo-

ple, looking at the phone can have a negative connotation
Content: Easier to update. Possibility to offer audio and video format too. Higher risks of data management issues.

Physical booklet
Accessibility: Easy to carry. No need for internet or any supportive device. Easy to produce at home (print + assemble) by the user or by an external party.
User experience: Physical interaction allowing for high levels of intervention to personalize it. It encourages kinesthetic learning. Novelty can wear off over time since it is a classic or familiar format.
Content: It does not allow for updates. It offers the possibility for narratives and larger amounts of content than the other formats.
From this comparison, the latter was selected as the most suitable option based on its characteristics and the particularities of this project.

To find the final outcome, please refer to the document *Tomate un mate guideline,* which is located as a separate file for better visualization. Figure 44 depicts a rough ideation around the way this design outcome could be presented as a resource on the CC Foundation's website and aligned with the CR toolkit and CV map.
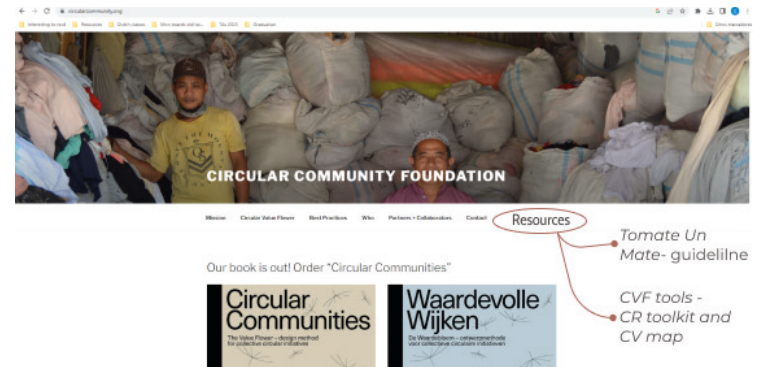

Figure 44: Schematic representation of the potential presentation mode for the design outcome

APPENDIX

Project Title
Leveraging circular initiatives for systemic
change in Argentina

Master thesis
MSc. Strategic Design
Faculty of Industrial Design Engineering
Delft University of Technology

Date
October 27, 2023

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