Leveraging circular initiatives for systemic change in Argentina
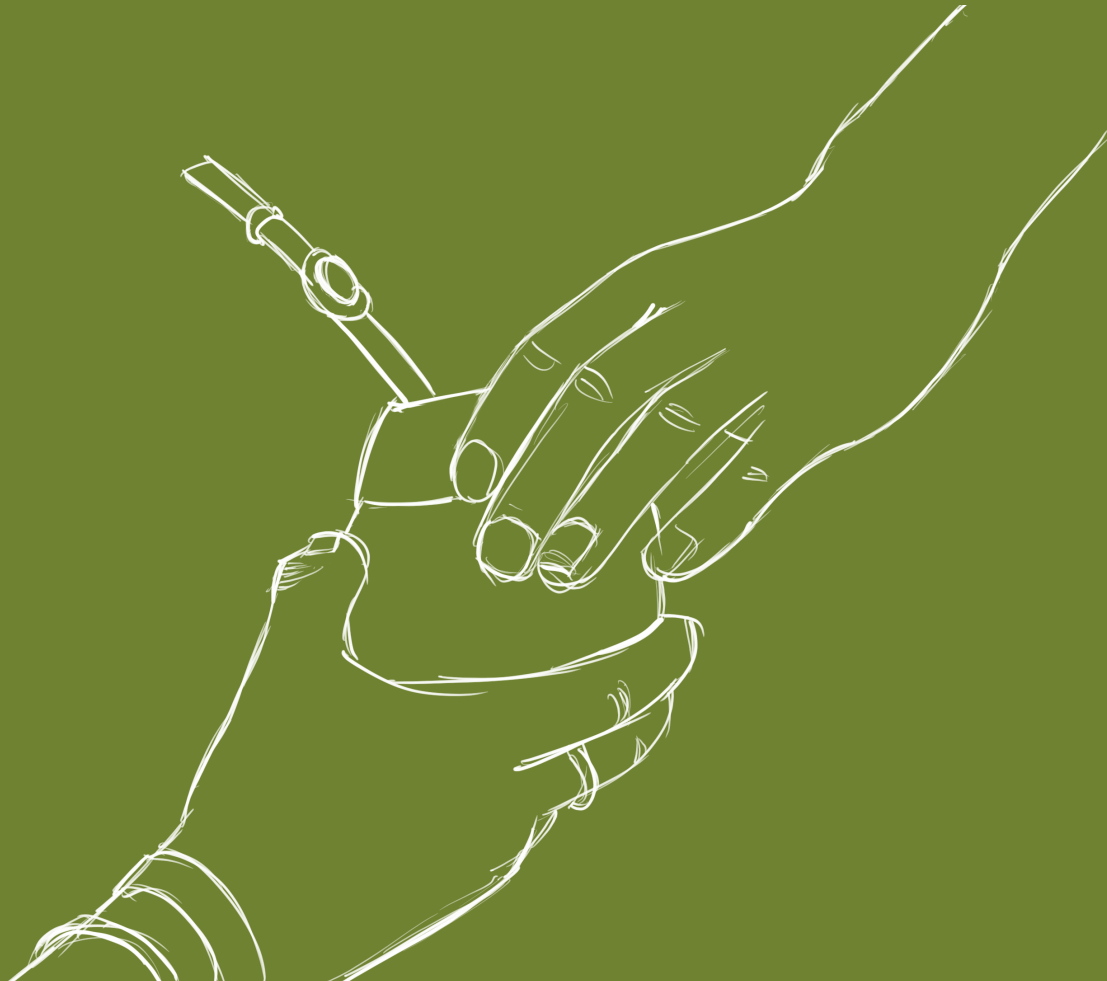
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Executive summary

In the context of the ongoing transition towards a more sustainable system, grassroots innovations, particularly Circular Initiatives (CIs), are emerging as crucial players, understanding Circular Economy as a promising pathway forward in this sustainability shift. Within this context, the Circular Value Flower (CVF) method was developed by Els Leclercq and Mo Smit during their experiences working with CIs in the Netherlands.

The purpose of this project is to contribute to the development of the CVF by exploring its potential as a design method to support circular initiatives in Argentina while creating positive social impact. Argentina's relevance in this project is twofold. Firstly, its rich landscape of initiatives and social movements is highly influential, shaping not only the prevailing system within the country but also across the entire Latin America. Secondly, this project seeks to amplify the voices of the Global South within the design discipline and the academic sphere of CE, areas predominantly influenced by voices from the Western Global North.

As the CVF is designed for community engagement, this project centers on working closely with two Argentinean CIs (ReUSAR and Siempre Monte) with a decolonial and participatory approach. Given the complexity of this endeavor and the need to challenge traditional knowledge hierarchies, the overarching mode of thinking leading this project is Sentipensar (feel-think).

In order to cast light, with a sentipensante mindset, on the potential of the CVF to leverage the participating CIs, four phases constitute this project: *Reserch for Design, Redesigning the CVF, Action Research* and *Guideline Design*. The first phase aims to define and situate key theoretical concepts, gain a deep understanding of the local context, analyze the current state of the art, and initiate my self-deconstruction as a researcher. The second phase, *Redesigning the CVF*, focuses on adapting the method and its tools to align with the project's mindset and the Argentinean context. The design outcomes of this phase are named the *Circular Reflection toolkit* and *Circular Value Map*. These tools are designed to facilitate the participatory application of the CVF method during the third phase, which is the *Action Research* phase involving ReUSAR and Siempre Monte.

After several weeks of active engagement with the CIs and numerous group and individual reflections, the primary insight discussed is the CVF's potential to support Argentinean CIs by creating a space for pausing, reflecting, and engaging in meaningful conversations. These conversations center on addressing member alignment and both internal and external communication, which are among the primary uncovered issues faced by Argentinean CIs today. Moreover, tackling these challenges aligns with two of the three essential conditions for their success, as identified in the existing literature: shared expectations and networking.

To enhance the accessibility of this research to other practitioners, the primary insights have been translated into a practical guideline referred to as the *Tomate Un Mate guideline.* This constitutes the fourth and final phase of this graduation project, the *Guideline Design* phase, with the hope that it will also serve as a starting point for further developments.

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Glossary

Acronyms:
- **CVF:** Circular Value Flower
- **CIs:** Circular initiatives
- **CE**: Circular Economy
- **CC Foundation:** Circular Community Foundation
- **AR**: Action Research
- **CR toolkit:** Circular Reflection Toolkit
- **CV map**: Circular Value Map

Since this project was held collaborating with two Argentinean communities, several sections were developed in Spanish and many other parts, combining sources in both languages. The importance of this aspect relies on ensuring good communication with the members of those communities while focusing on situating knowledge,and contextualizing it.

Despite my best efforts to provide accurate translation of the quotes and the sources employed in this report, it's important to note that all translations were undertaken by me, and I am not a professional translator. Certain terms have remained in Spanish as they are proper nouns. The ones used in this report are the following

- **Sentipensar:** It comes from the combination of the words feel (sentir) and think (pensar) and it entails a way of knowing and being in the world by combining intellectual and emotional engagement. (Escobar, 2019).
- **ReUSAR:** It is the name of one of the participating initiatives. It is an acronym in Spanish (Recicladores Urbanos por la Salud Ambiental de la Región), which translates to "Urban Recyclers for the Environmental Health of the Region" in English.
- **Siempre Verde:** It is the popular denomination given in Argentina to a tree species originally from New Zealand scientifically denominated: Myoporum Laetum. This common denomination literally translates to always (siempre) green (verde) because its leaves are evergreen and persistent throughout the year.
- **Siempre Monte:** This is the name of one of the participating initiatives and it signifies "forever forest". This denomination derives from a wordplay combining their mission to eradicate Siempre Verde and leverage the local forest.
- **Biblioteca Popular:** It literally translated to popular library and it is a community-driven effort by Envecinados. They aim to expand a network of refurbished old fridges placed in public squares, stocked with books for anyone to take and room for people to contribute their own..
- **Tomate un mate:** This phrase is the title to one of the outcomes of this project, a guideline. It translates literally to "have/drink a mate". Mate is a South American infused herbal drink very traditional and popular, particularly in Argentina.

Chapter1:
INTRODUCTION

1.1 Project context

In our current global landscape, we find ourselves in the middle of a profound worldwide transition away from a system dominated by anthropocentrism, androcentrism, elitism, and capitalism, as highlighted by Carenzo et al., (2022). Within this context, Circular Economy emerges as a promising way towards achieving the ambitious objective of harmonizing economic growth with socio-environmental sustainability (Velenturf & Purnell, 2021).

At the forefront of innovation in this systemic transition, we find grassroots initiatives and social movements as means for citizens to address the current socio-technical challenges. They are frequently the ones paving the way for new trajectories (De Koning et al., 2019). With the appropriate context and internal conditions (Wolfram, 2018), these initiatives have the potential to cascade their influence across the larger system, challenging the existing unsustainable paradigms (Smith & Raven, 2012).

Understanding the relevance of grassroots initiatives, particularly those focused on Circular Economy, urban designer and architect Els Leclercq and Mo Smit have explored potential ways to close material and operational resource loops within local communities. They aim to create a technique for residents, officials, and designers to collaboratively enhance value in neighborhoods and districts (Leclercq & Smit, 2023a). In this process they developed the Circular Value Flower (represented in figure 1) as a method of analysis and design after their experience working with CIs in The Netherlands (Leclercq & Smit, 2023a)
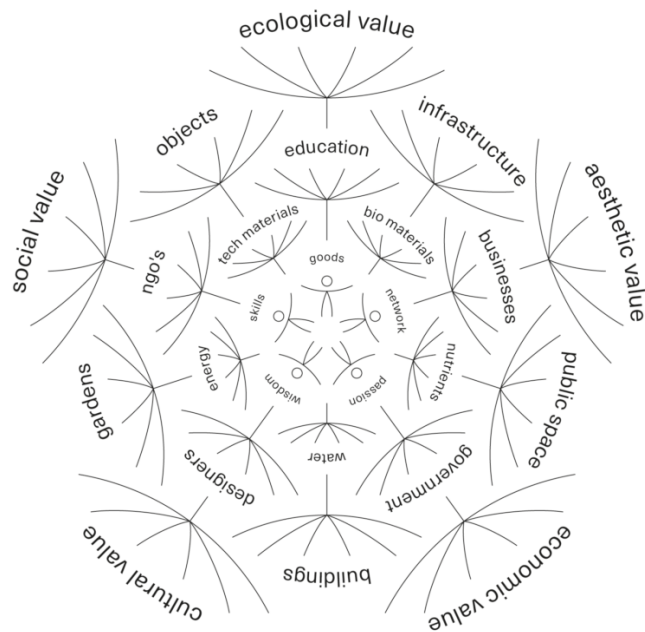
Figure 1: Graphical representation of the CVF method with its 5 layers.

After testing their tool on online workshops with civil servants, designers and other professionals, they understand the need to further improve it including citizens' experiences as well as knowledge and experiences from the global South (Leclercq & Smit, 2023a) for knowledge cross pollination.

On top of Circular Community Foundation's interest in experiences in the Global South, several other authors (Carenzo et al., 2022; Escobar, 2019; Betancourt Morales & Zartha Sossa, 2020) highlight that it is necessary to capitalize these experiences to stop perpetuating western predominance in the academic world. This is because many strategies

made around Circular Economy often overlook the specific characteristics, resources, and constraints of the Global South and, more specifically, of Latin America (Betancourt Morales & Zartha Sossa, 2020). Cities in Latin America are not only relevant for their experience with circularity, but also for their experience of citizens shaping urban processes (Uribe, n.d.). Arturo Escobar emphasizes that Latin America offers alternative visions of development that challenge conventional Western models (2018), making it an ideal terrain for experimenting with innovative sustainable approaches.

This is particularly relevant to Argentina, a country that has played a big part in influencing many aspects that define Latin America's identity today (Uribe, n.d.). In this context, the relevance of the country relies on the key role of grassroots initiatives within it due to the historical prevalence of a weak political and economic system since the country's inception (Uribe, n.d.).

All in all, the three elements that constitute the foundations and triggers for this project to take place are derived from the framework here exposed and can be summarized in: (1) The current linear system has shown its limits and CIs have the potential to accelerate the transition towards a more sustainable system (De Koning et al., 2019), (2) the Circular Value Flower method has proved the potential to assist different actors when working with circular initiatives towards sustainability, and it's yet to be tested with citizens in Latin America (Leclercq & Smit, 2023a), and (3) grassroots initiatives hold great significance in Argentina, given the historical prevalence of weak political dynamics that have been present since the country's independence impacting in the entire continent (Uribe, n.d.).

As shown on figure 2, these three elements led to the formulation of the overarching research question of this graduation project (RQ): How can the CVF support CIs in Argentina?

The current linear system has shown its limits and CI have the potential to accelerate the transition towards a more sustainable system
(De Koning et al., 2019)

The CVF has proved the potential to assist different actors when working with CI towards sustainability, and its yet to be tested with citizens in Latin America
(Leclercq & Smith, 2023)

How can the CVF support circular initiatives in Argentina?

Grassroots initiatives hold great significance in Argentina, given the historical prevalence of weak political dynamics that have been present since the country's independence repercuting in the entire continent
(Uribe, n.d.)

Figure 2: Clear image of the main aspects of the project context leading to the main research question

1.2 Sentipensar

Before delving deep into the structure of this research project, it is important to emphasize the guiding thought process. This project entails tackling a complex socio-technical challenge- the transition towards a more sustainable system-, it is context relevant, and it challenges the traditional hierarchies of knowledge -by including voices that many times are overheard-. That is why Sentipensar is explored as the main mode of thinking throughout the entire process.

Senti-pensar means: feel-think, and it is a concept developed in Latin American popular movements. It was included in the academic world thanks to the Colombian anthropologist Orlando Fals Borda and fur-

ther discussed in the field of design by Arturo Escobar (2018). This approach aims to leverage different ways of knowing by combining intellectual analysis and emotional engagement. Moreover, it aims at incorporating voices that are not always heard (Escobar, 2018), and it entails reflective action in the world.

In order to tackle the complex socio-environmental challenge around this project, this mode of thinking is employed to ensure a situated and holistic approach. Sentipensar saturates this project from start to finish. Throughout this report, it will be identified in various ways. During the research for design phase, there is an emphasis on the inclusion of bibliographic references from Latin American authors to evoke an autonomous or sensitive design approach (Escobar, 2018). This means being attentive to local concerns. and incorporating voices that are not always prominent in the academic sphere due to the prevailing Western influence in the educational system of the discipline (Ibarra, 2020). On the other hand, Sentipensar encourages reflective action by placing the researcher within the world in order to study it (Tomas Rodriguez Villasante, 2017). This aspect is addressed by employing a participatory and impactful methodology such as Action Research. In order to enhance this mode of thinking and explore its possibilities in such a context, the debrief of this phase is composed by analyzing concrete events and activities, along with the experiences surrounding them (Ibarra, 2020). This is done based on the idea that scientific knowledge is inevitably influenced by emotional experiences, even though this often generates tensions in certain scientific communities (Ibarra, 2020).

Sentipensar highlights the ontological side of design suggesting that as designers, we not only shape the world, but the world also shapes us (Escobar, 2018), as well as to our discipline. Therefore, conceiving ourselves as coexisting beings within the world that we constitute rather than solely transforming it inspired me to develop this project in a rather exploratory manner. This is evident in the flexibility of the Action Research plan (in section 6.1 in this report), and the stages that compo-

se it, among other factors.

This way of thinking also triggered me to question many aspects of the project and my approach to it, inquiries that can be found in the final section of this report- Section 9.5 *Personal Reflections.*

Lastly, adopting this way of thinking also implies an ideological statement. I cannot deny that perhaps other methodologies or approaches have suggested similar ways of researching and designing. However, naming it specifically with these words and drawing on authors like Escobar and Fals Borda, and acknowledging its origins in Latin American communities, entails a certain positioning on my part as the author of this work.

1.3 Participating initiatives.

As mentioned in the Project Context section, this project explores the potential of the CVF in Argentina. Since the CVF method is tailored for community engagement, and in order to embrace the sentipensante approach, this exploration is done in close collaboration with two local circular initiatives: ReUSAR and Siempre Monte project. The criteria for their selection were specifically formulated for this project, and further information can be found in Section 3.4, titled *Circular Initiatives in Córdoba*. In the following paragraphs, a brief description of these initiatives is provided.

ReUSAR (figure 3) is a cooperative of waste collectors that was born in the midst of environmental urgency and limited job opportunities in the city of Alta Gracia, Córdoba province. Their name is an acronym that stands for: Urban Recyclers for the Environmental Health of the Region. (Recicladores Urbanos por la Salud Ambiental de la Región)

They collect waste from the streets of five city neighborhoods, catego-

rize, and select the materials they can sell. Their revenue comes from both their clients and a monthly subsidy provided by the Municipality.

The initiative was born in 2021 founded by members of the MTL ("Movimiento Territorial Liberación"-Territorial Liberation Movement). The MTL is a social and political movement of employed and unemployed workers that was born after the national crises of 2001.

Figure 3: Photo of members of ReUSAR June 2023 wearing their characteristic green t-shirt (Re.u.s.a.r (@reusar.ag) • Fotos y videos de Instagram, n.d.)

The Siempre Monte project (figure 4) is an initiative from the community Proyecto Hormiga. This community has three different initiatives: (1) A workers cooperative in which citizens of Alta Gracia work processing pruning waste and produce substrates to sell (2) a plants nursery which currently sells natives species, and (3) Siempre Monte (photo 2). The three of them are highly connected (and even dependent on each other) because of their members, resources, location and the alignment of their goals.

Particularly Siempre Monte is the initiative that seeks for environmental

restoration through the eradication of Myoporum Laetum, an invasive tree species (Mostly known as Siempre Verde in Spanish). They are aiming to achieve this by developing building blocks made out of the wood obtained from this tree to not only tackle the environmental issue, but also the housing shortage existent in the area.

The initiative is in an early stage of research and development focusing on how to build the module in an efficient and sustainable way from wild Myoporum Laetum trees. Currently, the way they sustain their work is with subsidies and scholarships from national research institutions (UNC and CONICET).

Figure 4: Photo of the members of Siempre Monte around the building blocks made out of Myoporum laetum*

1.4 Research questions and goals

Recognizing the potential of the CVF method to assist circular initiatives in Argentina as catalysts for systemic change, this project's primary research question is: "How can the CVF support circular initiatives in Argentina?" as illustrated in Figure 2 section 1.1.

To address this question effectively within the timeframe of this graduation project, ensuring a contextually relevant and impactful approach, participation from the two initiatives described in the previous section is essential. This approach leads to the formulation of a more specific research question (RQ1): How can the CVF support the circular initiatives ReUSAR and Siempre Monte project? To address this question, the research objective is to uncover the challenges currently faced by these initiatives and view them as opportunities for designers to provide support through the application of the CVF.

On top of that, understanding the relevance of leveraging the local knowledge, and experiences around circularity of these South American initiatives, while also ensuring a situated approach, the second sub question emerges: (RQ2) What does circularity/ circular economy mean in Argentina?

The following figure (5) illustrates the two research questions (RQ1 and RQ2) in alignment with the primary objectives and outcomes of this project, divided into two concurrent processes: a research process (top row) and a design process (bottom row). On the right side of the figure, the principal outcomes of each phase are presented. The outcome of the design process is a revised version of the CVF tools, referred to as the "Circular Reflection toolkit" and "Circular Value map". In terms of the research process, the main outcome is a thorough elaboration of the theoretical and empirical findings answering the research questions. All the learnings and insights collected are then translated into an actionable outcome, a guideline called 'Tomate un mate'. In the last section of this chapter, section 1.6 *Report structure,* an overview of where all these elements are reported can be found.
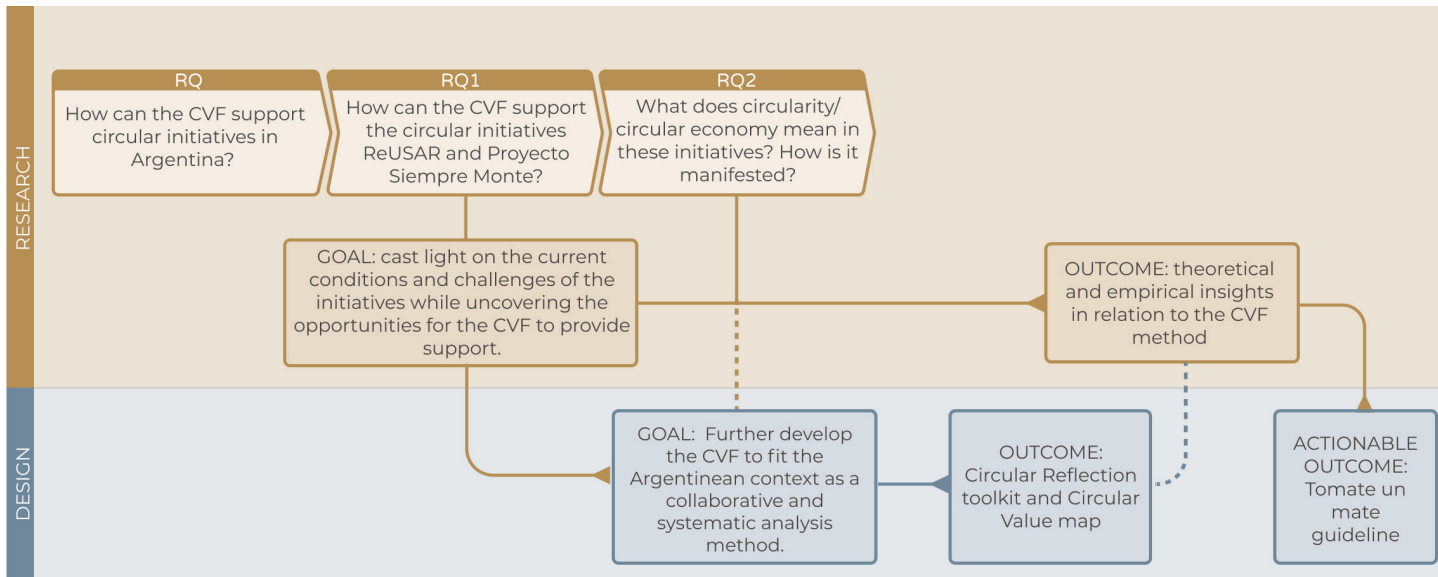
Figure 5: Visual representation of the research questions, main goals and outcomes of the project within the two parallel processes: design and research.

1.5 Project approach

In order to achieve the aforementioned goals, a design process and the corresponding research process parallelly take place constantly feeding each other. These processes are mainly composed of four phases: (1) *Research for Design* phase, and (2) *Re-designing the CVF* phase as preparations for the (3) *Action Research phase,* and lastly, the *Guideline design* phase as an actionable translation of the main learnings as depicted in Figure 6 on the following page.

As in any design project, these activities are highly intertwined, and to ensure clarity in this report that complexity is gradually disclosed throughout the entire document following the here exposed logic. Hence in the following paragraphs, we will zoom in the diagram pf Figure 6 unveiling each of these phases, the motivation behind them and their main steps.

Chronologically, the first phase is Research for design as a starting point and preparation for the other stages. Since this process aims at enhancing the design practice through the creation of frameworks, design implications and philosophies (Zimmerman et al., 2010), it includes theoretical and empirical research. This phase can be defined as a diamond (as shown on figure 6) because of its divergent and convergent nature. By leveraging content from several disciplines -like anthropology, social innovation and economy- the goals of this section can be divided in three. (1) it aims at defining and situating a clear understanding of the main theoretical concepts, study after which a theoretical framework is developed as a conceptual stepping stone for the project; (2) understanding the particularities of the Argentinean context, and more specifically the province of Cordoba deriving into a deep understanding of the selected initiatives from a systemic perspective; and (3) analyzing the current usefulness and usability of the CVF and the related best practices of analogous methods to gain knowledge around its strengths and

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drawbacks in this context.

This phase is relevant to empower me to make informed decisions in the rest of the project. The specific methodologies of this phase will be further explained in the following section (section 1.6 Research Methodologies) with the respective outcomes. Furthermore, following the adopted decolonizing approach and considering the involvement of two languages (Spanish and English), this phase enables me to guarantee pragmatic translation. This means understanding the use, connotation and implication of certain terms in the Global North and detecting analogous concepts and their manifestation in the Global South.

The conclusions of the Research for Design phase are translated into design requirements as a starting point of the second phase: Redesigning the CVF. The purpose of this design process is to further improve the CVF as a collaborative tool particularly fitting the context and characteristics of the Argentinean circular initiatives involved in this study.

This phase is a very important preparation for the following Action Research phase. During the design process, experts in the field and pilot sessions complement its three main steps: concept definition, system design, and detailed definition; all of which will be further explained in Chapter 5. These activities lead to the design outcome named Circular Reflection toolkit and the Circular Value map.

Those two elements are going to be employed to apply the CVF method with the participating initiatives during the Action Research phase. This third phase takes place in Argentina during a period of five weeks. It consists of two cycles of i*mmersing, performing, visualizing* and *reflecting* (Adapted from Hopkins, 1985) which are held to gain more understanding on the research questions from the daily experiences of the members of each participating circular initiative. This scientific approach focuses on research in action including the members of the community in the reflections and learnings (Coughlan & Coghlan, 2002). Hence, choosing a location where I can speak the language and
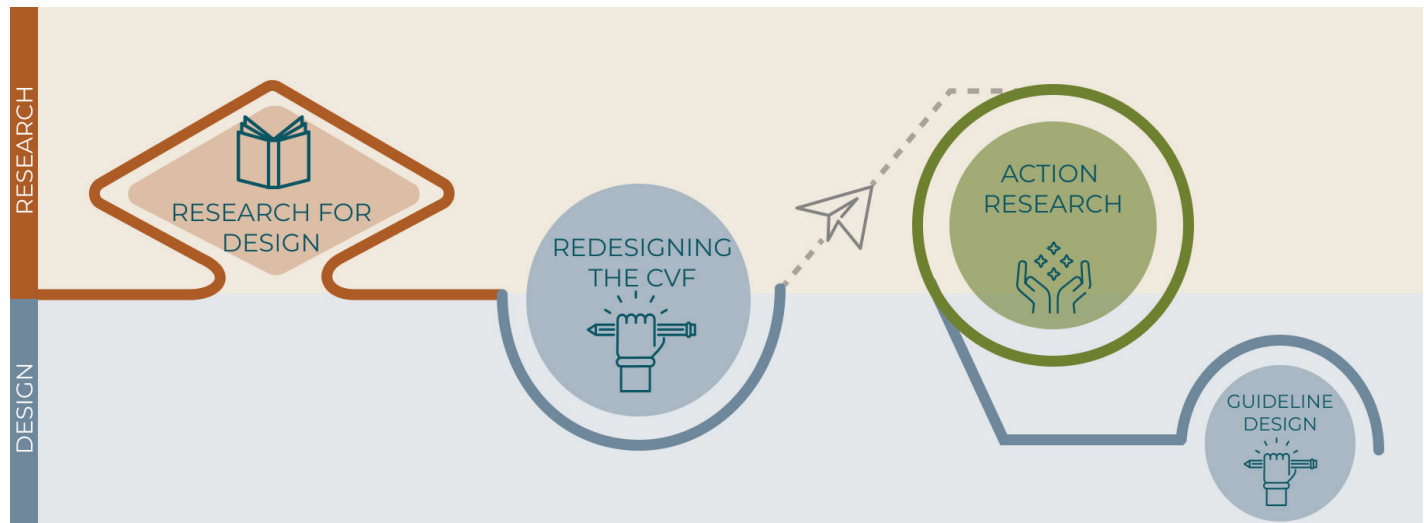
Figure 6: Simplified version of the approach of this project leading the structure of this report

RESEARCH

DESIGN

RESEARCH FOR DESIGN

REDESIGNING THE CVF

ACTION RESEARCH

GUIDELINE DESIGN

connect culturally is no coincidence. During this phase, the goal is to research while creating positive social impact in the context by empowering the initiatives' members (Brydon-Miller & Maguire, 2009).

As mentioned by Coughlan & Coghlan (2002), AR allows for the employment of diverse data collection methodologies which need to be carefully planned and adapted. The research methodologies of this phase include: sensory ethnography, dialogs and semi-structured interviews which will be explained in detail in the next section. This phase concludes with group and individual reflections to derive insights around each research question.

All in all, the combination of different methods and the participation

of other professionals is a strategy to increase the validity of this project (Creswell, 2014).

Lastly, the learnings collected during the entire project are translated into an actionable outcome constituting the final phase of the process: the guideline design phase. Figure 7 depicts a concise visualization of these phases, zooming in from the preceding figure for clarity.
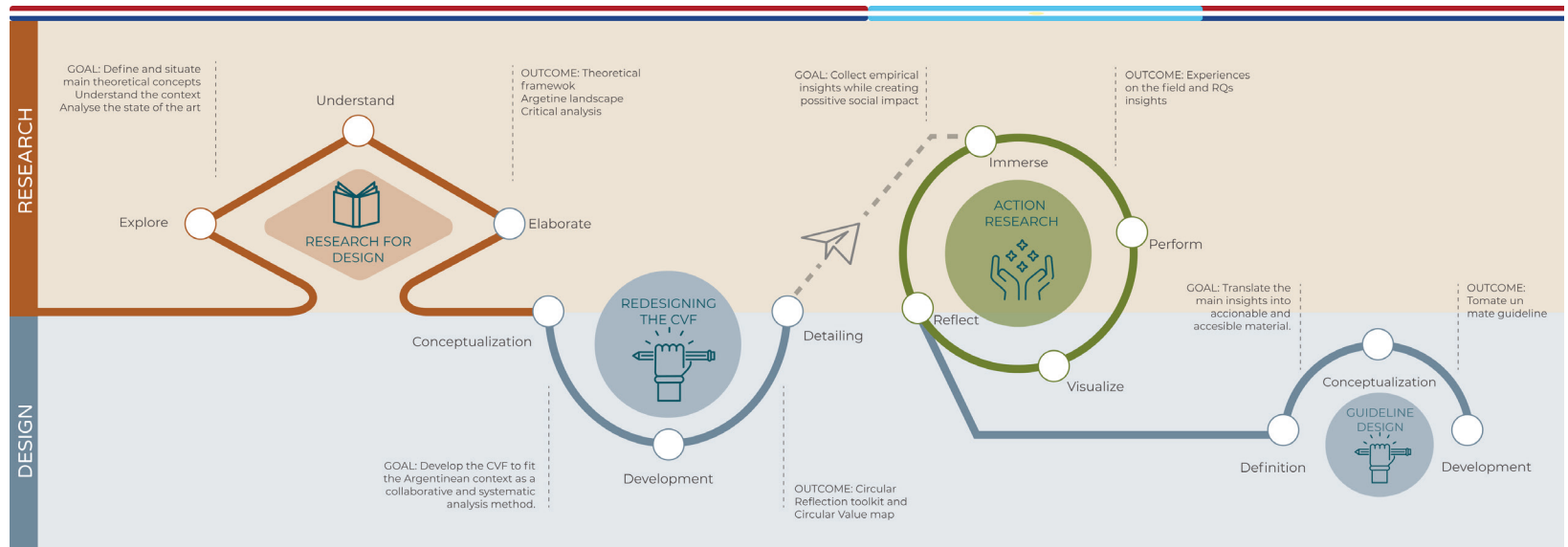
Figure 7: A more comprehensive visualization of the project's approach, including specific stages, goals, and outcomes

1.6 Research methodologies

In this section, we delve into the methodologies meticulously employed throughout each specific research phase of the project. The aim is to provide an in-depth explanation that not only outlines the methodologies themselves but also unveils the profound rationale underpinning their selection and mode of application.

As mentioned in the project context section, South American voices are not always included in the development of the leading theories and concepts (Carenzo et al., 2022). Therefore, this project is aligned to what Boaventura de sousa Santos and Walter Mignolo describe as epistemic disobedience or Southamerican epistemics challenging the predominant colonial structure of academic knowledge and "promoting the diversity of knowledge and know-how as a political and liberating act" (Ortiz, 2022). This means that all the methodologies and sources are cautiously selected from a decolonial approach in the attempt to avoid being an academic extractivist, which is also aligned with the Sentipensar mode of thinking.

In order to follow the logic exposed on previous figures (6 and 7) first the methilodogies of the *Research for Design* phase will be described followed by the ones employed during the *Action Research* phase.

1.6.1 Research for design methodologies

Aligned with the overarching research question of this project, this phase is defined by three main sections, each with specific goals. Figure 8 provides a graphic representation of the relation between each goal of this phese and the main research question.

The three goals of the Research for Design phase are:

1. Define and situate main theoretical concepts in order to gain clarity and common understanding of definitions and theories, build a strong foundation for decision-making, and to ensure contex-
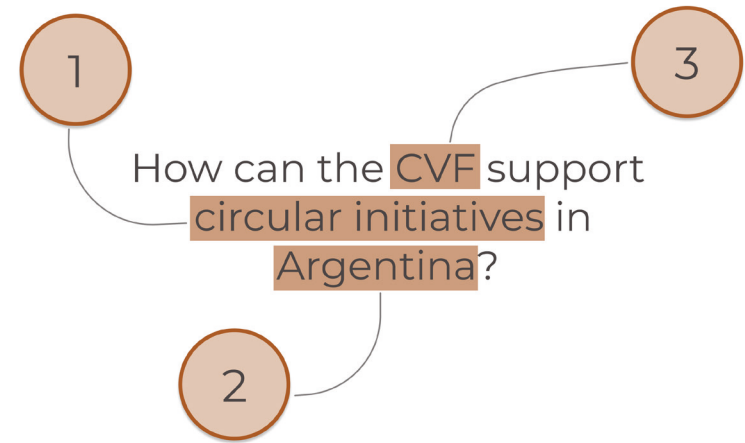
Figure 8: Main RQ in relation to the goals of the research for design phase

tual relevance and enhance the credibility of the project. Concepts around circular economy and sustainability, niches innovation, designer's role in social innovation and transitions, and more are explored.

2. Understand the context through a deep analysis of Argentina and Cordoba province in order to learn about its past and present situation. This empowers me with a clear understanding of the system in which these initiatives are located and its connections with it. Moreover, as part of my own deconstruction as a participant researcher (Tomasini Giannini & Mulder, 2022), this analysis casts light on potential biases I could have and help me define my place of enunciation and unveil the reasons behind my mode of thinking and feeling.

3. Analyze the state of the art to elaborate on current best practices and learn from barriers or challenges the CVF and analogous methods have. To achieve this, a critical analysis of the CVF is performed collecting insights from its applications, past experiences of other stakeholders with it and my own experience with it.

The research for design phase is characterized by its main three activities: *exploration, understanding* and *elaboration* following the, already well known, diamond shape. Diverging during this phase is aimed towards casting a wide net and *exploring* a diverse range of sources related to the leading concepts. A comprehensive search including different methodologies and sources helps in understanding those from different disciplines and perspectives, and understand their reach.

During the phase of *understanding,* the data is processed and filtered to make sense of it all and delimit the scope even further.

During the last stage, here called *elaboration*, the information is processed, reflected upon and organized in a way that it is useful and accessible during the rest of the project. Figure 9 provides a visual representation if the three stages of this diamond shaped phase.

To gather and analyze this information, multiple research methodologies are employed, and these are elaborated in the following paragraphs.
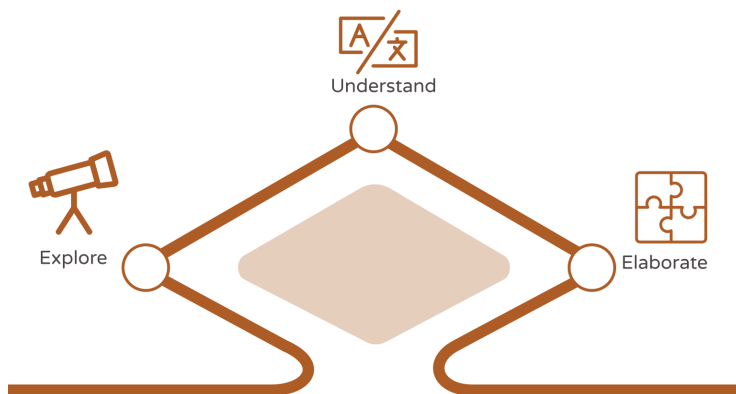
Figure 9: Representation of the Research for design diamond approach with three main stages

Literature review: An in depth literature review is held to gain in depth understanding of the main concepts around which a theoretical framework for the rest of the project is developed.

This framework is fed by more than 60 sources between academic papers, books, and podcasts to include a broad scope of perspectives. In order to work towards a decolonial and situated approach, particular attention is paid to the inclusion of a variety of sources by consulting authors and experts from the Global North as well as from the Global South. Moreover, this selection of sources is particularly important in this project to ensure alignment with the aforementioned overall mode of thinking: *Sentipensar*. Consulting numerous and varied sources as well as experts from different fields aim at enhancing accuracy, counteracting power imbalances, and preventing potential eurocentric biases (Escobar, 2018).

Semi-structured interviews: Semi structured interviews with experts (academic and experiential experts) are held during a phase of field exploration to better understand the specific and current situation of CIs in Córdoba province. This methodology is chosen to gain insights on the main topic while having freedom to diverge to adjacent areas of knowledge that prove relevant during the conversation (Patton, 2002)

Circular Value Flower method: An in depth analysis of the existing circular initiatives in Córdoba is performed utilizing the CVF as the research method with two goals in mind. Firstly, obtaining a clear picture of the characteristics of each initiative, to be able to select the most appropriate one for this project and start drawing the first insights at a meso level. Secondly, to experience first hand the usability and usefulness of the method in this specific context. This last point is particularly important to develop the following step: a critical analysis of the tool.

Critical analysis and benchmark research: An in depth analysis of the CVF as a design method is carried out in order to understand its strengths and limitations for this project. The main sources employed

to perform it are the experiences of the researchers and creators of the method (Els Leclrcq and Mo Smit); the experiences of the participants in different workshops held by them (such as civil servants and social innovators); and my own experience in the aforementioned paragraph. From the understanding of its potential in relation to this specific project, a benchmark research follows to unveil and compare those to best practices found in other methods with analogous goals.

1.6.2 AR Research methodologies

The third and most important phase of this project is an Action Research (AR) process. I opt for a collaborative approach, aiming to become an agent of change as a researcher while maintaining a balanced power dynamic, as suggested by Coughlan & Coghlan (2002). The choice of action research is based on its suitability for engaging in co-learning with participants, allowing me to share experiences and reflect alongside them. This participatory design approach aligns with the concept of "reflection in action", which is a distinguishing feature of *Sentipensar* (Tomas Rodriguez Villasante, 2017) (Ibarra, 2020).

In order to ensure a power balanced approach I start by deconstructing myself and designing a very concrete and flexible action plan, activities that will be detailed at the beginning of chapter 6.

The entire phase of AR is composed of two cycles based on those explained by Hopkins (1985): *plan, action, reflect* and *collect*. These four steps are adapted to the particularities of the project deriving to the four steps mentioned in figure 10: *immerse, perform, visualize* and *reflect*. First, I worked with ReUSAR, and then with Siempre Monte. Each cycle is executed with a different initiative, allowing me to apply the learnings from the first one to the subsequent initiative.

Since action research allows for numerous data collecting and processing methods (Coughlan & Coghlan, 2002), a broad range of metho-
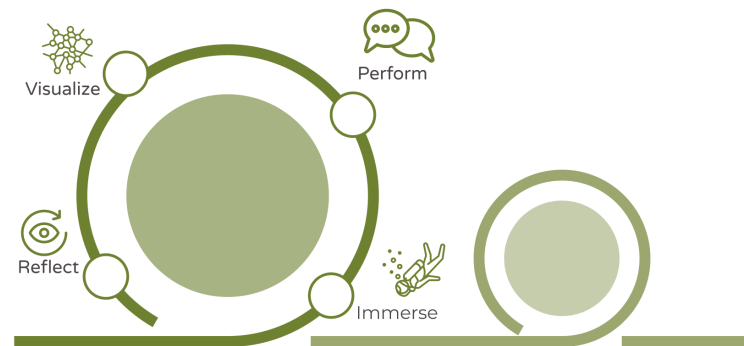
Figure 10: Visual representation of the two cycles with analogous steps during the action research phase

dologies is considered selecting those aligned with Sentipensar and a decolonized approach. Therefore, all of these aim at being inclusive and respectful with the communities who collaborated to avoid reinforcing power imbalances, perpetuating cultural appropriation, and marginalizing local knowledge systems as several authors (Pink, 2009; Escobar, 2019) suggest that traditional methods do. Those methodologies are:

Sensory ethnography: Highly aligned with feel-think, as Sara Pink (2009) explains in her book, sensory ethnography aims to capture and analyze sensory experiences, including sights, sounds, smells, tastes, and tactile sensations. This approach is chosen to enhance the connection between my senses (as researcher and participant) and the cultural and social contexts in which I am immersed. By attending to these sensory experiences, I aim to uncover hidden dimensions of culture, identity, and power dynamics that may not be apparent through traditional collection data methods alone (Pink, 2009).

Dialogs or informal conversations: This form of collecting data is chosen to ensure a natural interaction with the members of the initiative (Patton, 2002). As well as for me to have great flexibility to make the best

out of each opportunity for a conversation without knowing in advance who is going to be there and what the exact context will be (Patton, 2002). In addition to that and based on the exploratory nature of the project, this methodology is used as an enabler to learn and investigate unexpected areas of the topic constantly building on what I experience in the moment or previous conversations. On top of that, because it is considered a discourse of authenticity and equality (Jenlink & Banathy, 2005), it allows me to reinforce the intended decolonial approach.

Individual and group reflections: During the entire project several debriefing sessions take place to analyze the empirical and theoretical data collected. This qualitative way of processing and connecting them is employed to derive general findings and questions at every stage of the project. Some of these reflections are performed individually and many others in groups. Once again, the selection of the participants is carefully curated with the intention to consider different perspectives. Hence, I collaborate with expert designers working in the Netherlands as well as with Argentinian experts. These sessions aim at enriching the quality of the insights derived from the data and experiences as well as at preventing potential biases increasing validity of the findings (Creswell, 2014).

1.7 Report structure

In this section, an overview of how this entire process is presented in the report is provided.

In this first chapter the project context and approach were introduced. Chapter 2, 3 and 4 expose the Research for Design phase focusing each on one of the three main areas researched. After that, Chapter 5 depicts the process of redesigning the CVF to fit the Argentinean context, resulting in the Circular Reflection Toolkit (CR toolkit) and the Circular Value Map (CV Map). All of these steps serve as preparation for the

Action Research process, which is thoroughly explained in Chapter 6. Chapter 6 primarily centers on the activities and the insights gained from applying the CVF method in conjunction with the CR toolkit and the CV Map with the members of both initiatives. In Chapter 7, the outcomes of these experiences are translated into valuable insights, illuminating the research questions. These insights are also examined in depth, incorporating the key concepts from the theoretical framework. Chapter 8 introduces the result of the final research phase: the guideline called "Tomate un mate," which was designed to translate the main learnings into an actionable outcome. Lastly, chapter 9 contains the final reflections and conclusions on the overall project including its limitations and opportunities for further research.

Figure 11 on the following page provides a graphical representation of the report's content, emphasizing the chapter in which each phase is reported. This visualization follows the same logic and color coding as the previous figures (6 and 7), serving as a magnified version of both. While it offers a detailed representation of the project, it focuses on the primary connections between activities and outcomes. The representation may not always follow the exact chronological order in which they took place due to the complexity of the process.

RESEARCH FOR DESIGN

Theoretical research

EXPLORE
- Literature review on social innovation, systemic and transition design
- Research on the Circular Value Flower

- Semi-structured in depth interviews with Argentinean experts in social innovation and CE

Literature review on:
- Circular economy and sustainability
- MLP> niches innovation
- Designer's role in social innovation and transitions
- Decolonial design
- Autonomous design
- Sustainability in cities
- Latin American context

Research on Circular community Foundation's selection criteria Analogous project's criteria Argentinean author's definition of CE

Literature review and systemic analysis on Argentina's history

Literature review on creative facilitation, co-design and boundary object

Empirical research

UNDERSTAND
- Conversations with CVF developer Els Leclercq

- CVF analysis and benchmark research

- Design and collaboration in Circular community's workshop with civil servants

Research on Argentinean waste collectors. Literature review and expert interviews

Argentinean CIs analysis employing the CVF: online research and semistructured interviews

Argentinean Circular initiatives recruitment

Consulltation with design experts in action research and participatory design: PJ Stappers, Aniek Toet

Consultation with expert designers from Round Feather

Research outcome

ELABORATE
- Research questions and goals

MLP map of Argentina's social movements relevance for systemic change

INTRODUCTION	R4D: THEORETICAL FRAMEWORK	R4D: ARGENTINA LANDSCAPE OF INITIATIVES	R4D: CRITICAL ANALYSIS OF THE CVF
Chapter 1	**Chapter 2**	**Chapter 3**	**Chapter 4**

Argentina's historic, cultural and demographic context

Inclusion criteria to select CIs

My position as a designer

My space of enuntitation

Design

CONCEPTUALIZATION

- Defining the user
- Detailing design requirements

Metaphors and analogies for concept exploration

DEVELOPMENT

The visual map as a convas for the session

- Consultation with expert designers
- Pilot session in Argentina

20

Activities

PERFORMING
- Tailoring the toolkit for ReUSAR
- Reflective session with the members

VISUALIZING
- ReUSAR final Visual map
- Hand in the final visual map and saying goodbye

RE.U.S.A.R

IMMERSING
- 3 Days of participating in their activities

REFLECTING
- Personal debrief and insights RQ1 and RQ2

IMMERSING
- 3 Days of participating in their activities

REFLECTING
- Virtual delivery of the visual map and final calls
- Personal debrief and insights RQ1 and RQ2

PROYECTO HORMIGA

Iterations on the action plan

PERFORMING
- Tailoring the toolkit for SM
- Reflective session with the members

VISUALIZING
- ReUSAR final Visual map
- Hand in the final visual map

AR: EXPERIENCES ON THE FIELD
Chapter 6

Reflection on experiences with local designers

Answering RQ1 and RQ 2

Recapitulation and last reflections

Identifying limits and future opportunities

RESULTS
Chapter 7

CONCLUSIONS
Chapter 8

Tomate un mate guideline

DETAILING
- Tailoring the elements for each initiaitve

DESIGN: REDESIGNING THE CVF
Chapter 5

DEFINITION
- Requirements establishment

DEVELOPMENT
- Format evaluation

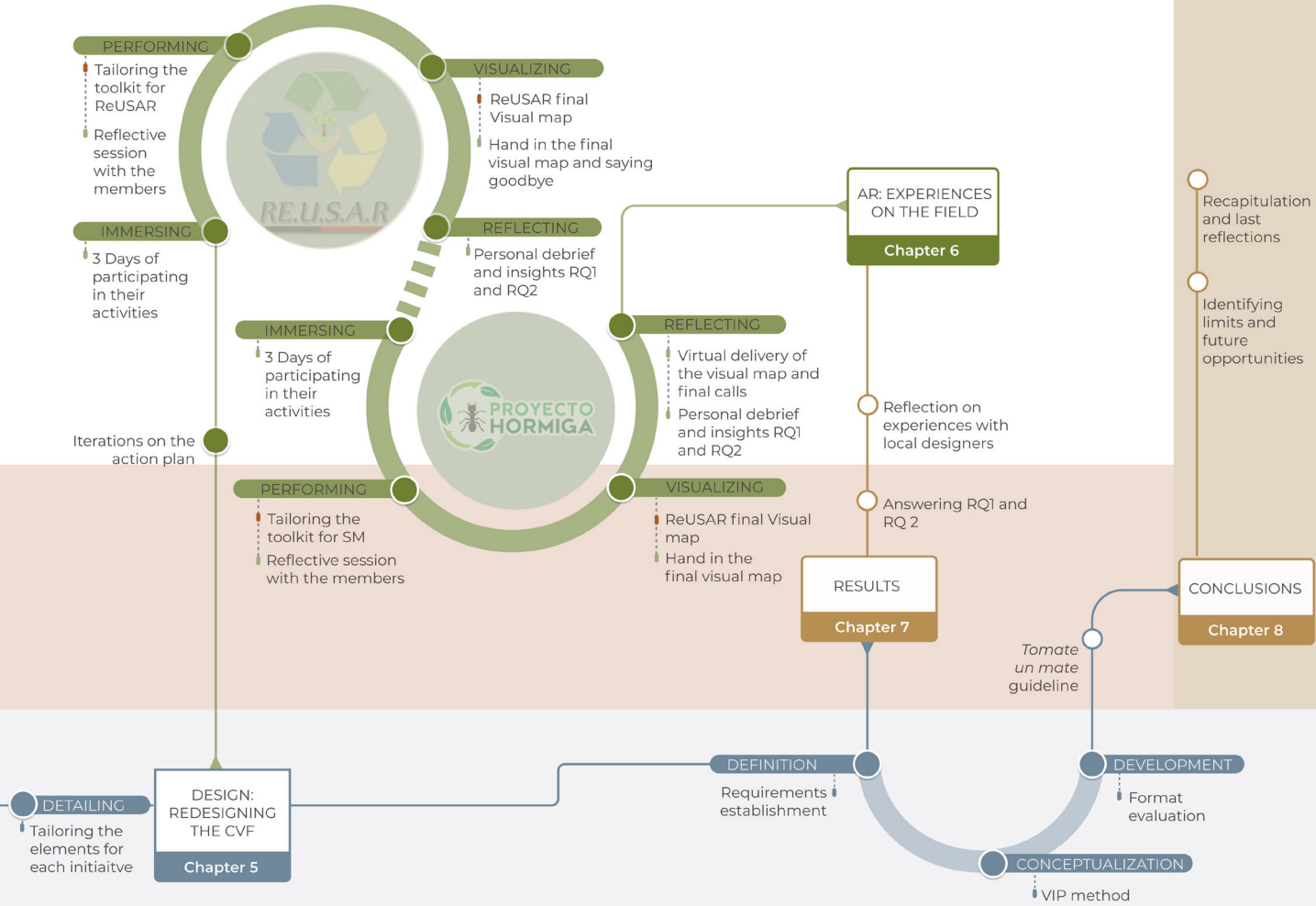**CONCEPTUALIZATION**
- VIP method

Figure 11: Main activities conducted throughout the project, their interconnections, resulting outcomes, and the corresponding chapters in which they are documented.

21

Chapter 2:
THEORETICAL FRAMEWORK

In order to be able to perform the intended participatory process with circular initiatives in Argentina with the CVF, a theoretical exploration around the main concepts and theories driving this project needs to be done. Therefore in this chapter, a theoretical framework is developed as the first step of the Research for design phase.
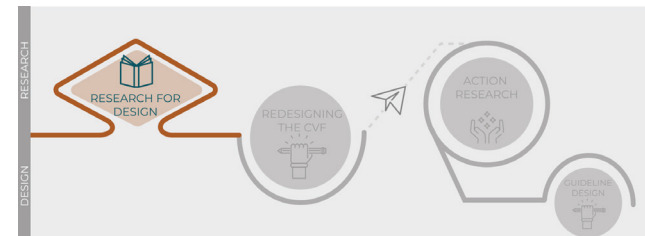

Figure 12: Graphic representation of the phase Research for Design (R4D) in relation to the entire process.

This chapter starts with the key insights gained during the literature review; it then proceeds with the explanation of the developed theoretical framework as an elaboration and appropriation of the literature explored and lastly, the conclusions are exposed.

The literature review presented in this chapter entails an exploration of the main concepts and analogous experiences. It involves a thorough exploration of the core theoretical perspectives relevant to the project. By delving into existing literature, it ensures and increases my understanding of these concepts as well as identifying analogous experiences in related fields. These explorations offer valuable early insights into the research questions.

This phase also intends to delimit the project scope. The exploration extends beyond merely addressing the central question. It touches upon adjacent topics that, while not directly included in the research, contribute to a more concrete and well-defined project scope. This process aids in narrowing down the focus and ensuring that the subsequent phases align with the project's objectives.

Moreover it focuses on providing theoretical lenses through which the following analyses and research phases are conducted. It not only defines concepts such as circular economy with precision but it also introduces some concerns and contradictions with their application. This enhances the theoretical underpinning of the project and it contributes to its relevance and applicability in a very critical way.

2.1 The world we live in

As mentioned in the introduction of this document, we need to transition towards a sustainable system to ensure the well-being of current and future generations, protect the planet's ecosystems, and address pressing global challenges such as climate change, resource depletion, and environmental degradation (Velenturf & Purnell, 2021).

In order to achieve systemic change, adjustments are required in almost every aspect of human life: "social movements, business models, laws and regulations, data and infrastructures, and entirely new ways of

thinking and doing" (Adebajo, n.d., p. 9). Therefore new frameworks are necessary with innovative ways of organizing the public sector, the private sector, businesses and people's everyday life. Such a change requires years of action and the involvement of the entire world.

This is exactly what we are currently experiencing. Currently, the world is in a socio-technical **transition**: from a system based on linear economy with a clear focus on anthropocentrism, androcentrism, elitism and capitalism (Carenzo et al., 2020) to a more sustainable one.

Systemic socio-technical transitions can be defined as a non-linear process of structural change in the dominant system which happens over some decades. (Rotmans et al, 2001, Grin et al, 2010). Transitions "... depend on a mix of interacting dynamic processes, both self-organizing and other-organized (by humans)" (Escobar, 2018, p. 152). This means that they are emergent and therefore they cannot be designed or predicted in advance. "Emergence, and this is one of its key principles, takes place on the basis of a multiplicity of local actions that, through their (largely unplanned) interaction, give rise to what appears to an observer to be a new structure or integrated whole (say, a new social order or even civilization), without the need for any central planning or intelligence guiding the process" (Escobar, 2018, p. 152).

This however, does not mean that what emerges is completely spontaneous. As designers, it is important for us to understand which variables and aspects we can intervene and how those will affect the system. In order to do this, a holistic approach is necessary by decompartmentalizing socio-technical systems (Irwin et al., 2021). This means: working with health, transport, energy, food, etc. as integrated holons, and designing them for the micro, meso and macro levels (Marradi & Mulder, 2022).

To better understand this, transitions can be explained by the **Multilevel Perspective theory (MLP)**. This framework exposes that transitions happen thanks to the interaction within and among the three analytical

levels: Niche, Regime and Landscape. (De Koning et al., 2019)

Seyfang & Smith (2007) conclude that for transitions to take place, there needs to be selection pressure accompanied by adaptation capacity and coordination among the different levels. This selection pressure comes from the landscape as shown on figure 13 creating opportunities for new ideas and innovations many of which originate in bottom-up initiatives. These grass roots are defined as: "Informal processes of citizen practice that resiliently and adaptively modify the urban environment, (...) [They are] self-organized collective practices that work towards the urban empowerment of citizenship and develop critical processes regarding the current city." (Acosta et al., 2012, p. 95).
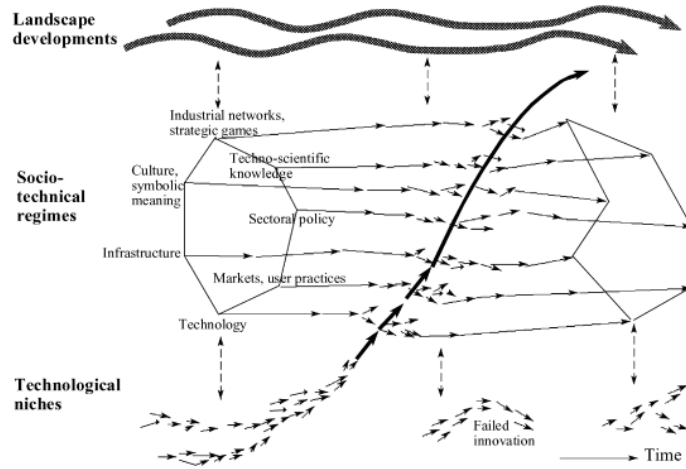

Figure 13: representation of the multilevel perspective theory dynamics (Geels, 2002) as a theoretical representations of sociotechnical transitions

For these initiatives to thrive there are three conditions that need to exist according to Wolfram (2018) (1) expectations of the innovation need to be widely shared among members, (2) internal networking is needed as well as beyond the members of the niche, and (3) learning should be experiential and occur in the wider social context of communities. All of them highlight the relevance of active participation and alignment of the members of the initiative as well as the interactions with other analogous communities or stakeholders.

Regardless of common agreement among authors in relation to the urgency to work towards sustainability, interpretations of sustainability itself vary across different viewpoints. The concept of sustainability has around 300 different definitions (Velenturf & Purnell, 2021). The most common one as exposed by Meadows et al. (1972) for the Club of Rome which is likely the one familiar to the reader, is as follows: "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs". Some others argue that sustainable development should be seen as a transformative process, in which the way resources are managed, technology and institutions are developed and investments are made align with current and future needs (Brundtland, 1987). These varying viewpoints pose a challenge when it comes to assessing the true impact of changes on sustainable development (Velenturf & Purnell, 2021).

Arturo Escobar builds on the previous definitions considering sustainability as a cultural process which entails an "(...) entire way of life, a mode of being~knowing~doing" (Escobar, 2019, p. 116). This holistic perspective of sustainability is particularly relevant for this project because it goes beyond the ecological realm and relates to the transformation of systems and social practices.

In the following section, the concept of Circular economy in relation to sustainability and its principles are explored.

2.2 Sustainability & Circular Economy

Circular economy is a concept originated in the UK as a model of closing resource loops in goods production and consumption linked to the cradle-to-cradle concept by McDonough and Braungart (Carenzo et al., 2022).

Nowadays, similar to what was previously discussed regarding the diversity of sustainability definitions, the concept of circular economy also presents numerous definitions.

One of the most widely recognized definitions asserts that the circular economy is a system in which materials are never discarded as waste, and the natural environment is revitalized. In this model, products and materials are sustained in a continuous cycle through practices such as maintenance, reuse, refurbishment, remanufacturing, recycling, and composting. (Ellen Macarthur Foundation, n.d.) This means that CE is a regenerative and restorative process by design. It is a "(...) positive, continuous development cycle that preserves and enhances natural capital, optimizes resource yields, and minimizes system risks by managing finite stocks and renewable flows." (Moreau et al., 2017, p. 1)

When using such a concept one should be aware that it is still referencing an economic model, which comes from the neoliberal mindset of endless economic growth as a goal for humanity (Velenturf & Purnell, 2021).

To aim for sustainability as Velenturf & Purnell (2021) explain, economy needs to be understood as an organization method oriented towards enhancing environmental quality and social well-being.

This conception comes from the evolution in the understanding of the relationship between society, environment and economy under the definition of sustainability. As shown on figure 14, it evolved from conside-
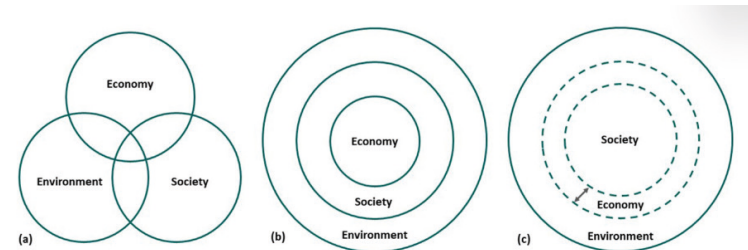

Figure 14: the evolution of the concept of sustainability according to (Velenturf & Purnell, 2021)

ring the three elements as equally relevant (a), to considering economy the way to organize society within environmental limits (b) to understanding economy as a tool to mediate society and environment (c).

This is why understanding Circular Economy as a tool or a step in the current transition is crucial. Circular economy is the means, not the end.

Defining the values of circularity is important as it adds precision and clarity to the concept, making it more tangible and actionable. These values serve as guiding principles that help translate the abstract idea of circularity into practical strategies and decisions, facilitating its effective implementation or identification in various contexts. After examining various sources that offer definitions, it becomes apparent that these three values are the ones on which authors tend to agree the most.

- **Optimizing the use of resources:** by extending product's life as much as possible (Carenzo et al., 2022) (Circular Economy, 2023) and designing out waste (Ellen Macarthur Foundation, n.d.). Recycling, sharing, repairing, reusing, ect.. This is done aiming to achieve closed loops like in natural ecosystems (Korhonen et al., 2018).

- **Preserving and increasing the natural capital** (Carenzo et al., 2022): by restoring the natural environment of the planet (Ellen

Macarthur Foundation, n.d.) and balancing resource flows (Carenzo et al., 2022).

- **Promoting a lifestyle and mindset based on respecting people and nature** (Cerdá & Khalilova, n.d.): Altering our patterns of consumption and engagement with products (Ellen Macarthur Foundation, n.d.), challenging the norms of our consumer-driven society.

"Circular economy should strive for a set of environmental, social and economic values, the interrelations of which should leapfrog towards the more recent emerging sustainability perspective in which the economy becomes a means for reorganizing society and environment, rather than being considered a means on its own"

(Velenturf & Purnell, 2021, p. 1446)

2.3 Designers' role in this transition

Authors like Ezio Manzini, among others, mention that "everybody designs" differentiating between expert and diffuse designer. For the purpose of this project, the term designer is employed in reference to the first one. Expert designers are those who have formal education in the field of design and therefore are expected to have the expertise, tools and knowledge to empower and leverage diffuse design.

As already mentioned in the project context, some authors (Escobar, 2019; De Koning et al., 2019) sustain that the specificities of the role of designers in the realm of social innovation for systemic change towards sustainability still have a lot of room for research and definition.

However, a point of consensus among several scholars (Norman, 2024;

Monteiro, 2019; Escobar, 2019; Fry, 2017) is that the current world is a "design failure". While I have reservations about the anthropocentric and egocentric aspects of this claim, I do believe in the importance of reevaluating our actions and their impact as human beings in general, and as designers in particular. As Arturo Escobar explains, design is ontological, which means that "(...) in designing tools (objects, structures, policies, expert systems, discourses, even narratives) we are creating ways of being". (Escobar, 2018, p. 4). Hence designers have great power, and with it, great responsibility.

It is in this context, where notions of decolonial design gain importance. This practice aims to help the designer be aware of the politics of design, its outcomes, methodologies and tools in relation to dynamics of power (Tomasini Giannini & Mulder, 2022).

Best practices around this approach highlight the importance to frame the project with the members of the community supporting them in the definition of their own objectives (Tomasini Giannini & Mulder, 2022). In order to achieve this, the designer needs to immerse herself in the community and design with them; continuously reflecting on her practices and their impact. To ensure this power-balanced process, the designer needs to deconstruct herself by unlearning many of the normalized practices. This can only be achieved with a community willing to participate and include the designer in their daily activities, dialogs and more interactions. (Tomasini Giannini & Mulder, 2022). Decolonial design is an important approach for our discipline employed to avoid building upon the Eurocentric predominant narratives which have shaped design in the South hemisphere for years (Fry, 2017).

"There are professions more harmful than industrial design but only a few of them"

(V. Papanek)

Another notion relevant to consider when designing from this perspective is what Arturo Escobar (2018) defines as autonomous design which aims to design situated solutions with a participatory and community-driven process. The focus of this perspective is to go beyond the modern dualisms and the predominant disconnection with the surroundings of our times with, among others, modes of thinking like sentipensar.

> *"If design got us into today's mess,*
> *can design get us out?"*
>
> (Don Norman)

2.4 Reflections

All in all, in today's world, the imperative to transition towards sustainability is undeniable. This transformation requires comprehensive changes in our social, economic, and environmental systems. In this project the vital role CE can play in this transition is defined as a step toward the desired sustainable future.

Sustainability, as defined by Arturo Escobar, contributes to considering not only the technical or economic aspects of circular sustainability but also how grass roots initiatives are rooted in the culture and way of life of people. This can contribute to a more comprehensive and enriching analysis of circular initiatives and their potential to bring about sustainable systemic changes in Argentine society. To accomplish this, a holistic perspective is necessary, and the Multi Level Perspective (MLP) theory proves invaluable. It ensures a systematic approach for analysis and helps one understand where and how to influence the system from the grassroots level leveraging niches. Particular attention is paid in this project to Circular niches or initiatives because of their prominent role,

understanding that they can thrive only if certain conditions are met.

As an expert designer (in the words of Ezio Manzini), I acknowledge the power and responsibility that this profession grants me, as well as the potential for harm or bias that I can introduce throughout this project. Therefore, special consideration is paid to concepts like decolonial design and autonomous design holding significant influence in the decision-making process, as they help acknowledge the political dimension of the discipline. This orientation drives the project to be participatory and rooted in the local context of the communities involved.

In order to ensure a decolonial approach among other things, it is relevant to acknowledge that my space of enunciation and action is as an Argentinean (with Italian roots) currently living in The Netherlands as a professional designer and finishing a Masters programme at TU Delft. I understand that my perspective may create a sense of distance for some participants in the project, while others may find it more relatable. Therefore, a big part of the efforts in the next stages of the process focus on decolonizing and deconstructing my own self as a designer.

The theoretical framework presented in figure 15 on the following page serves as a summary of this theoretical groundwork and as a guiding map for the practical application and evaluation of the chosen methodology, ensuring a cohesive and well-informed research journey.

Building upon these reflections and framework, the subsequent chapter delves into a deep analysis of Argentina. By employing the theories and concepts exposed here, such as the MLP theory and the three principles of CE, the field analysis of the country contributes to a better understanding of the context, and the local circular initiatives. It also enhances my awareness of potential biases I may have as a researcher, especially since Argentina is my home country.

Sustainability

- Definition is not clear> process of change
- From ecological design it's a cultural process
- Requires cognitive and spiritual revolution
- Strong and global sustainability differentiation

can be achieved through

Circular economy

- As a model of production and CONSUMPTION- connection with territory is needed
- Can create industrial symbiosis
- Profound changes are needed: involving citizens, constant learning

Principles:
- Optimizing the use of resources
- Preserving and increasing the natural capital
- Promoting a lifestyle and mindset based on respecting people and nature

Required systemic change

Environment / Society / Economy

Evolution

Economy as a tool to organise resources for social well-being, environmental quality

The world we live in

Transitions

- It's a process
- They are emergent> Cannot be designed
- Require a hollistic approach
- *Key attention points:*
  -Systems as holons
  -People's practice cannot be designed

Can be explained by

Landscape development

Pressure from the landscape creates windows in the regime

New sociotechnical regimes influences the landscape

Socio-technical regime

Dynamically stable

New learnings and technology thrive in the widows of opportunity adjusting the regime

Niches

Social and technological innovation in safe space for experimentation and learning

Time

MLP theory

Conditions for niches to thrive
- Shared expectations
- Internal and external networking
- Experimental learning

Initaitve: Informal processes of citizen practice, self-organized which works towards citizen empowerment

The world as a design failure

Designer's role

- Design creates the world and the world creates it
- Designers as change agents towards a new system from within the old system
- Design is everywhere and everybody designs
- The South is a design consequence of the North

It is dominated by anglocentric and eurocentric theory

Autonomous design

- The role of design in this transition from an ontological perspective
  - Decolonial approach to narratives (story telling otherwise)
  - Understand design as a way of being political>
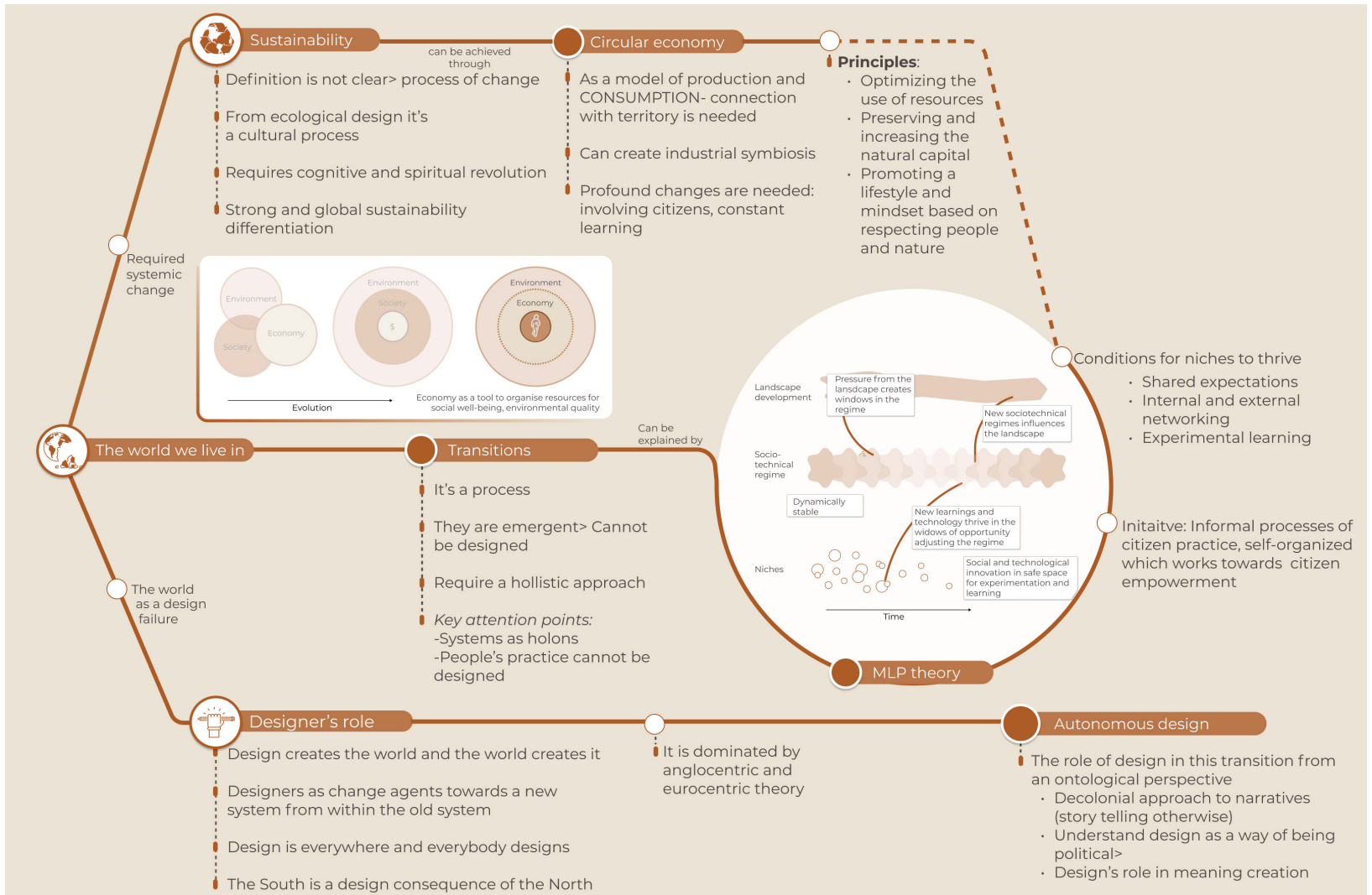 - Design's role in meaning creation

Figure 15: Theoretical framework where the main concepts are exposed as an elaboration of the literature review and first empirical explorations on which to build the following phases.

Chapter 3

ARGENTINA LANDSCAPE OF INITIATIVES

Building on the sentipensante approach to knowledge as something deeply embedded within specific social, cultural, and ecological contexts, an exhaustive analysis of Argentina and Córdoba was held. The goal of this research is twofold. On the one hand, better understand the context in which the project takes place; and on the other hand, it contributes to my own deconstruction as an Argentinean myself.

This way, I aim to not only situate my practices as a professional, but also to detect potential biases and better accommodate my mindset as a participant researcher. Creating what is defined by Fals Borda as self-awareness and reflexivity (Tomas Rodriguez Villasante, 2017).

The chapter first briefly characterizes Argentina followed by a summary of the theoretical insights around circular economy in the country. It then delves into the particularities of Córdoba, the specific context of the project, by providing a short description of it and analyzing the local grassroots initiatives.

Figure 16: Chacabuco BV, Cordoba, Argentina*

3.1 Argentina as a context

Argentina is the 8th biggest country in the world, it is representative, republican and federal in its organization. Nowadays, more than 45 million people live in the country mainly concentrated in highly populated cities (90% of its population) (Argentina, n.d.). This Latin American country is characterized (as many of its neighbors) by a weak political system, mistrust in government institutions and an unstable economy. However, it is also renowned as the land of famous literary authors, musicians and scientists who have been (and still are) a great influence in the identity and imagery of the entire continent (Uribe, n.d.).

In order to better understand this context a systemic review employing the MLP theory to analyze the country's past and present events is performed. The main focus is to learn about the role of bottom up movements as drivers of the country's biggest changes. The complete analysis can be found in Appendix A.

The key discoveries in this analysis highlight the significance of grassroots initiatives, which extend their impact not only within Argentina but also on a global scale. European and other South American nations have experienced the repercussions of these events due to the country's long standing close ties with them (Uribe, n.d.). Social movements continue to shape the Argentinean identity to this day and this way of problem solving is highly ingrained in the inhabitants' mindset.

3.2 CE in Argentina

In this context the concept of circular economy is gaining relevance in the academic world, in companies and among people. However there are three main aspects that need special attention when working with CE in Argentina.

*Photograph credit: Alicia N. Oller, used with permission.

As mentioned in section 2.2, CE is a concept that comes from the UK as a way of closing resource loops in the manufacturing industry with the goal of producing zero waste. This means being restorative and regenerative by design (L. Becerra, personal communication, May 5, 2023). This system makes sense in that context because the production system has a formal labor relationship among its members, capital circulates within that circularity, and the role of CE also has a mission of increasing the profit rate. However, in Argentina, the situation is different in three main aspects, which make a copy-paste version of this system not viable (L. Becerra, personal communication, May 5, 2023)

The first one is that in Argentina companies are not triggered to be circular due to weak law enforcement. On the other hand many cooperatives find their only way to survive in collecting and recycling disposed materials, many of these end up making some industries "greener". However, since these cooperatives are not really able to create surplus, one could argue if this is really circularity or a broken ecosystem. (L. Becerra, personal communication, May 5, 2023)

The second one is that around one million families depend on informal waste collection to survive (Carenzo et. al., 2022) as part of the mentioned cooperatives or self employed. This means that aiming for a "zero waste system" would live around four million people in the country below the poverty line.

Lastly, the cost of circularity needs to be integrated into the price of the end product without a market able to afford this. Waste collection in the cities is a service provided by a private company paid by the government who needs to choose for the most affordable one so no specific treatment for the materials is required. Therefore, the most convenient way to deal with them is to bury or burn them. Consequently, any company that wants to treat their waste needs to pass those costs on to the consumer. However, in the country, there is no market willing to pay extra for a sustainable product. (L. Becerra, personal communication, May 5, 2023)

Within this vast country, this project focuses in one region in particular: Córdoba. This choice is motivated by two key factors. First, Córdoba province has historically been home to influential social movements. Second, it allows me, as a researcher, to maximize the use of my available resources. The upcoming section will provide an in-depth exploration of the unique characteristics of this region.

3.3 Córdoba

Córdoba is a city located in the central part of Argentina and it is the capital of Córdoba Province. Córdoba is the second-largest city in Argentina with roughly 1.6 million people living in the urban area, as per the 2020 census.

While Buenos Aires is the largest city and acts as the capital, Córdoba also plays a very relevant role in Argentina as an alternative political force as well as being the birthplace of strong social movements as explained in the previous paragraphs. The city is located in the middle of the country making it a central cultural, political, and socioeconomic point. (Hora, 2021)

Recognized as "La Docta" because of its association with the founding of the first National University, this city has played a leading role in social movements, disseminating new mindsets across several South American countries and even in Europe (Hora, 2021)

Furthermore, Córdoba is home to the most widely circulated and read newspaper in the provinces of the interior, known as "La Voz del Interior," as well as a highly influential radio station called Cadena 3. Communication and information play a significant role in this context, considering another prominent characteristic of the country: the division and tensions that exist in many aspects between Buenos Aires and the other provinces (Hora, 2021).

*Figure 17: Córdoba's Cathedral**

> *"Córdoba has been a protagonist in Argentine political history and generally it has been so in tension, in opposition, to Buenos Aires. "*
>
> (Roy Hora)

3.4 Circular Initiatives in Córdoba

To complement the theoretical exploration of Córdoba, a field analysis of the grassroots initiatives within the province is conducted. This analysis is carried out using the CVF method, not only to ensure a systematic and qualitative approach but also to gain personal experience with its application.

The main sources of information to learn about these initiatives are the internet and informal conversations, and semi-structured interviews with initiative members. This approach is not only relevant to gain an understanding of the characteristics of the initiatives but also for me to make the initial connections with them, which will later help me evaluate their predisposition to participate in the project.

As shown in Figure 18 on the following page, the CVF is applied to a Miro board, with post-its added to the layers of the flower to represent the characteristics of the initiatives. One board is developed for each initiative, and the comprehensive analysis of all the considered initiatives can be found in Appendix B.
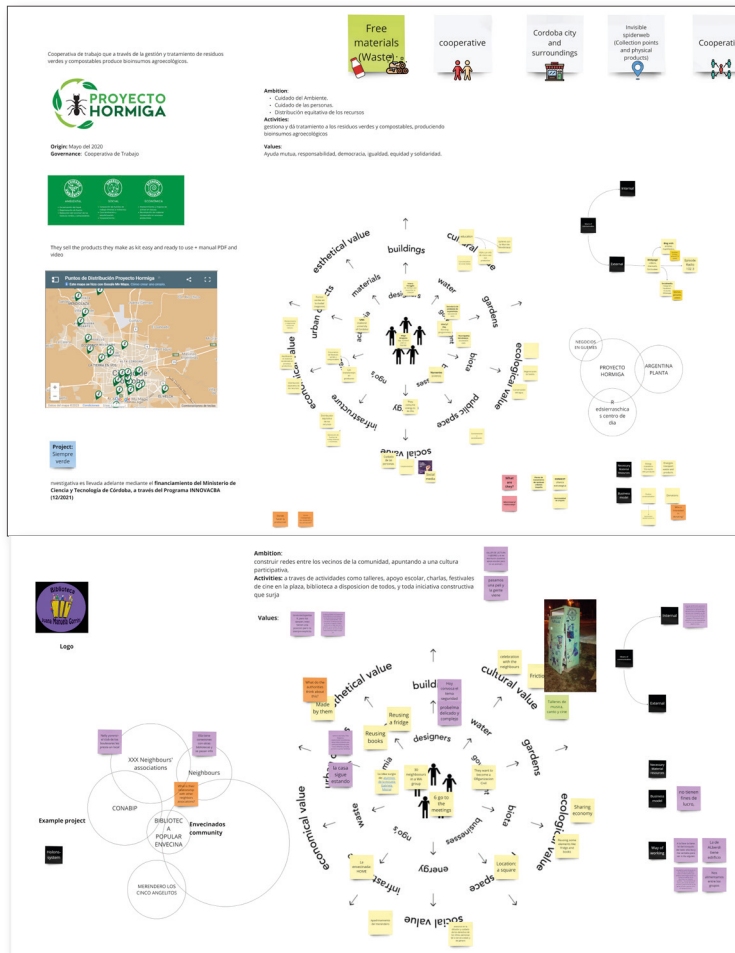
Figure 18: Analysis of the two initiatives - Biblioteca Popular and Siempre Monte projects as examples of the analysis performed using the CVF method.

Considering all these initiatives, a specific inclusion criteria, developed for this project, is applied to select the participating initiatives. This set of guidelines is employed to choose two initiatives as participants and collaborators from the broad scope found in Córdoba.

The eligibility parameters to include circular initiatives in this project are intentionally broad, ensuring diversity and feasibility, and are limited by the time span of the project. In addition to these considerations, predisposition, availability, and interest from at least one member of the initiatives were other very important aspects taken into account when selecting them.

The selection criteria are established based on the guidelines used by Els Leclercq and Mo Smit in their project. These standards are further refined by incorporating insights from the earlier territorial exploration and an analysis of similar projects, all to ensure better alignment with the specific context.

Therefore, among all the analyzed initiatives, those that comply with the following aspects are eligible to participate in this project:

- It has to be an **Initiative**: which is defined as "Informal processes of citizen practice that resiliently and adaptively modify the urban environment, (…) self-organized, collective practices that work towards the urban empowerment of citizenship and develop critical processes regarding the current city." (Acosta et al., 2012, p. 95)
- It needs to have a **bottom-up** approach: neighbors were responsible for the creation of the initiative and they play a key role for its sustainment over time; their actions and voice are decisive when making strategic decisions, and they perform the main activities. (Leclercq & Smit, 2023a)
- They should be working towards **circularity**: This means that their main activities are oriented towards at least one of principles of CE:
    - Optimizing the use of resources (Carenzo et al., 2022)
    - Preserving and increasing the natural capital (Carenzo et al., 2022)

33

- Promoting a lifestyle and mindset based on respecting people and nature (Cerdá & Khalilova, n.d.)

Moreover, special attention while selecting was paid to including initiatives with different backgrounds, starting points and organizational structures in order to diversify the experience and also learn from the comparison.

As previously discussed in the introduction of this report (Section 1.3), the chosen initiatives include ReUSAR, a cooperative of waste collectors from Alta Gracia (Figure 19), and Siempre Monte, an initiative from the community Proyecto Hormiga dedicated to environmental restoration through the eradication of Siempre Verde (Figure 20).

Figure 19: ReUSAR's logo   *Figure 20: Projecto Hormiga's logo*

To better contextualize them, a systemic analysis of the involved initiatives is conducted. This analysis is also performed with the MLP theory delving 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. The complete analysis can be found in appendix A "ReUSAR and SM contextual analysis".

3.5 Conclusions: Córdoba 's landscape of initiatives.

All in all, the local initiatives in the province of Cordoba and the system they create can be described by the following characteristics.

The province is composed of initiatives that, as any complex system, are holons. This means that they are a whole in themselves, while they are also part of a bigger system (Irwin et al., 2021).

Reflecting on the theoretical and empirical insights collected in alignment with the three essential conditions necessary for niches to thrive according to Wolfram (2018), as elucidated in the theoretical framework—(1) shared ambitions among members, (2) internal and external networking, and (3) experiential learning within the wider social context—the following key characteristics of the landscape of initiatives in Cordoba have emerged.

- (Related to condition 1 and 2) The origin of most (if not all) of the initiatives analyzed is a problem shared by different members of a community who do not interact for anything other than the issue they need to solve. They have a personal connection with some urgency. Hence many vanish once the problem is solved or in case they don't find a short term solution (in case of highly pressing unmet needs). In the majority of situations, these issues pertain to needs that the government is unable to fulfill such as: safety, street cleanliness, fire prevention, access to education or recreation, food, etc.

- (Related to condition 1 and 2) The boundaries of the initiatives are not consistently well-defined, often overlapping with other initiatives in terms of community members, shared resources, and common goals.

- (Related to condition 2 and 3)Local, national, and international

events play a pivotal role in bringing together these initiatives, providing crucial moments for networking and collaborative efforts. These events and clusters of initiatives help them refine their goals and operational approaches, as well as to get certain resources.

- (Related to condition 2) In smaller communities within these initiatives, networking heavily relies on specific individuals, emphasizing the significance of personal connections in their overall network dynamics.

- (Related to condition 2 and 3) Members exhibit periods of heightened participation as well as periods of minimal or no involvement, sometimes moving from one initiative to another one or participating in more than one at the same time. This participation is often dependent on strength and quality of the internal network (Participant MdC)

- (Related to condition 3) Most of them start with group meetings in which they define a project that can be submitted to a governmental or academic institution in order to get political and economic support as well as their cooperation. Therefore, in many cases they have proved to develop technological and/or economic dependency with particular political parties.

- (Related to condition 3) Their beginnings are characterized by a highly experimental nature with a few improvised resources, and a very proactive mindset from their initiators.

Their main daily struggle is financial and economic sustainability, usually combining delayed payments from governmental institutions (in a country with around 30% inflation a year), and a market of consumers driven by price and an industry that translates sustainability costs to price directly.

In preparation for the upcoming Action Research phase and to effectively apply the CVF method to the selected initiatives, the immediate context and the initiatives themselves were analyzed in this chapter. Consequently, conducting a thorough analysis and gaining a deep understanding of the method becomes crucial. This is essential for making the necessary adjustments to align it with the specific context. Therefore, the following two chapters will outline these activities. Chapter 4 will delve into an extensive analysis of the CVF method, and Chapter 5 will cover the design process, with a focus on the adaptations required to tailor the method to the context.

Chapter 4:

CRITICAL ANALYSIS OF THE CVF

During the previously exposed field investigation, the Circular Value Flower served as the research method to analyze the initiatives of Córdoba. The following pages delve into a deep analysis of the CVF method and its tools.

Chapter 4 starts with a thorough description of the CVF methods and all the tools within it. This overview draws from my own firsthand experiences during the preceding phase, as well as feedback received from various other users and experts in the field. Subsequently, the chapter delves into an analysis of the usability and usefulness of these elements, highlighting the primary pain points and bliss points. This assessment includes both the graphic and theoretical aspects of the tools, taking into consideration the Argentinean context in which they will be deployed. Moreover, an exploration of analogous methods and tools is conducted to learn from best (and worst) practices. Chapter 4 concludes with an assessment of the principal strengths and barriers of the CVF as a design method to support CIs in Argentina.

4.1 The Circular Value Flower method

The Circular Value Flower method is materialized through a graphic tool that is employed as a canvas. This component comprises five circular layers, visually designed to resemble a Dandelion flower, as illustrated in Figure 21. Moving from the center to the outer layers, the method addresses various aspects of the circular initiative, including initiators, resource cycles, relationship parties, spatial interventions and values.

The central layer is meant to be used for analyzing the "activating capital" (Leclercq & Smit, 2023a). Following that, the second layer addresses the various resource cycles that initiatives concentrate on. Moving on to the third layer, it showcases the potential collaborators with whom initiators may engage to fulfill their aspirations. The fourth layer emphasizes the spatial interventions that initiatives could undertake. Finally, the outermost layer encompasses the values they create.

The insights collected with the method are translated into different formats. On the one hand, they have written a book (figure 22) that aims to inspire neighbors, civil servants and any other enthusiast who wants to play an active role in the necessary transition towards a more sustainable system (Leclercq & Smit, 2023a). In the book, they not only explain all their findings in text format, but they also elaborate a visual map (figure 23). This map aims to clarify the complexity of the initiatives by presenting all their layers in a single graphical representation.
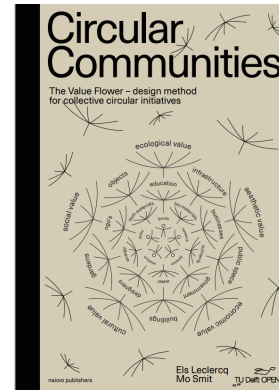

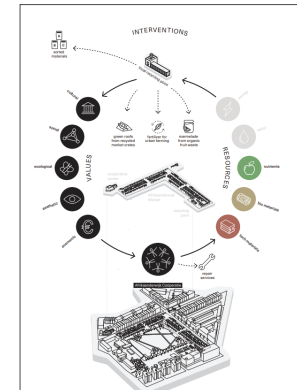Figure 22: Circular Communities book by Els Leclerq and Mo Smit

Figure 23: The Value Flower Field Map

In addition to that, they have put up a website (https://circularcommunity.org/) where they share the method and best practices (Figure 24) with the goal of creating a network of experiences that could be useful for other researchers, civil servants, and innovators. Their book and method are open for anyone who wants to access them online and make use of them.
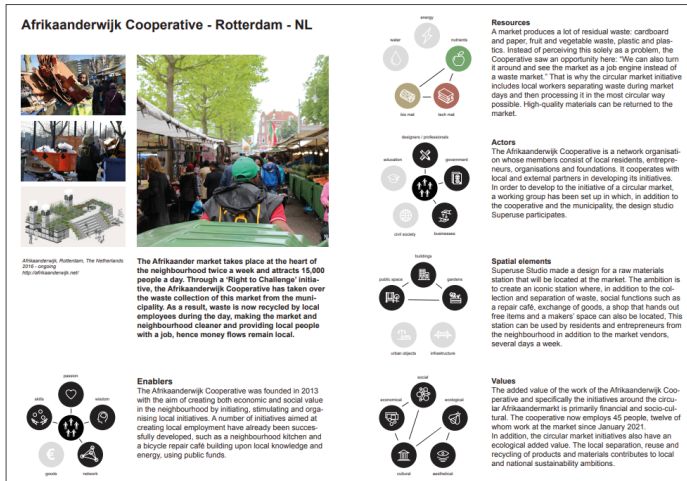

Figure 21: The Circular Value Flower canvas highlighting the theme of each layer.

Figure 24: Example photo showcasing one of the Best Practices cases shared on the CC Foundation website-Afrikaanderwijk.

In the next section, a critical analysis of the tool and all the here mentioned outcomes of the CVF method are exposed based on the barriers and opportunities they present to be deployed in Argentina. The purpose of conducting this analysis is to comprehend the method's strengths and limitations in alignment with the objectives and the specific context of this project. This understanding will guide me in identifying areas for improvement and making the necessary adjustments to tailor the method to the context in which it will be applied during the Action Research phase.

4.2 Analysis of the barriers and opportunities of the CVF

Drawing upon the experiences of the Circular Community foundation and my own practical application of the method, a detailed analysis of

the CVF is conducted, aligning it with the project's objectives and incorporating insights obtained from the literature review. The driving forces of this analysis are the usability and usefulness to aid social innovators and designers collaboratively analyze circular initiatives. In the analysis four main elements were identified: *Advantages or bliss points, Barriers or pain points, potential benefits or opportunities and insights or fact;* each being identified with a different color.

To gain a thorough understanding of the implications of this approach, a comprehensive analysis was conducted on all components of this system: the graphic representation of the CVF itself, followed by the findings presented in the book in text format, the visual map called 'Value Flower Field Maps', and the poster for Best practices. Figure 25 serves as a representation of the performed analysis. For a more comprehensive and detailed visualization of all figures, please refer to appendix B.
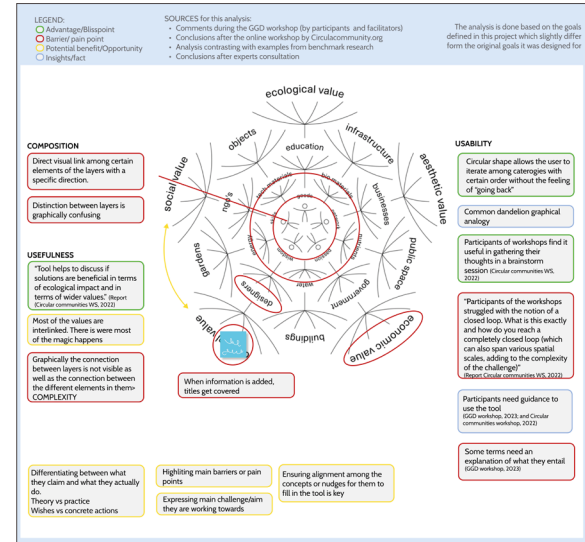

Figure 25: Image depicting a section of the comprehensive critical analysis conducted on the tools of the CVF

The primary findings revolve around the realization that the CVF method involves three distinct overarching stages, as illustrated in Figure 26: (1) preparation, (2) a collaborative session, and (3) debriefing.
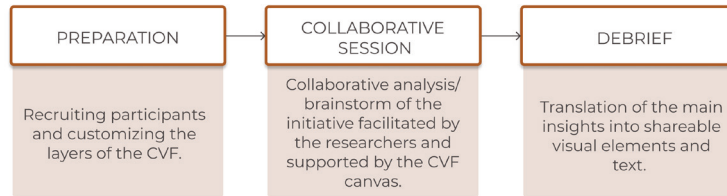

Figure 26: General steps or stages followed when applying the CVF method.

The first one consists of selecting and recruiting the participants or initiative to be analyzed and, based on that, preparing the CVF tool for the particularities of the case. The second stage entails a collaborative workshop session with the participants. During this session, the developers act as facilitators and employ the CVF tool to support and guide the activity. In the third step, the findings are translated by the researchers into shareable visual elements accompanied by text as final outcomes and summaries of the process.

Building on the findings of the previously exposed analysis, a benchmark research is performed. The goal of this step is to search for examples of other tools, methods or activities that are used for the same purpose in similar as well as in very different contexts. This is done to gain inspiration for the design phase, to learn from best practices and avoid pain points created by those. Figure 27, depicts an example of one of the analogous tools that was analyzed and color-coded using the same logic as in the previous section. For a better visualization of this analysis, please refer to Appendix B.

In the following section all the insights collected during these analyses are discussed.
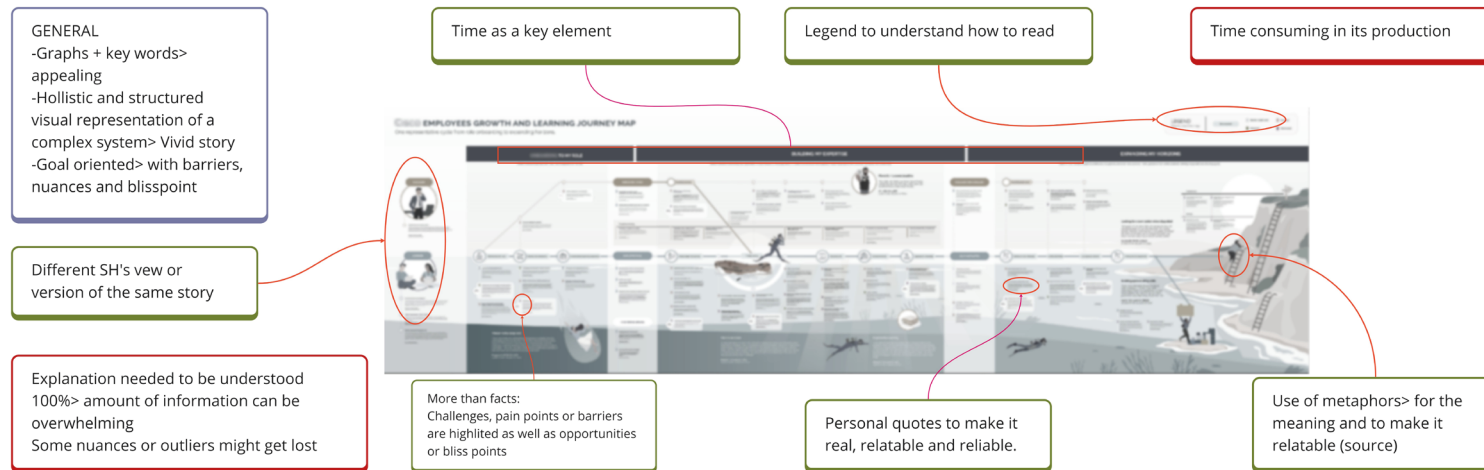

Figure 27: Image illustrating one of the cases analyzed in the benchmark research.

4.3 Conclusions: main strengths and limitations of the CVF tools

As mentioned in the first pages of this chapter, it is important to consider that this method was created "to investigate the possibilities for closing material and operational resource cycles at the local level and to (...) allow citizens, authorities and designers to jointly realize multiple value in neighborhoods and districts" (Leclercq & Smit, 2023a) in the context of Rotterdam, Netherlands. Instead, in this project, it is analyzed and will be further developed to be applied particularly in the context of Cordoba, Argentina.

With this clarification in mind, the following points are the main conclusions of the analysis highlighting the opportunities and barriers of the CVF uncovered in this project:

- The canvas can very well work as an aid to guide the research ensuring the participants to stay in topic while touching upon diverse elements. However, it has potential for a lot of improvement as an interactive element to be used during the workshops due to certain usability pain points it currently presents. An example of this is that when a post-it is attached to the map, it covers the guiding word on the map, which, in turn, results in a loss of clarity.

- It has proven to be valuable in prompting individuals to consider the complexity of an initiative considering the interconnection of different elements and their impact on each other. Nonetheless, presenting all these elements together can be overwhelming for users, and not all of them may be applicable in every instance. Furthermore, the arrangement of the elements can create visual connections that do not accurately represent actual relationships.

- The visual map is useful to gather qualitative information, yet it could be further improved to more effectively reveal the nuances and tensions, or challenges and opportunities of the analyzed aspects, rather than merely providing a description.

- All the graphic elements, including the canvas and the visual map, maintain a coherent structure, employ similar terminology, and complement each other effectively. However, considering that the visual map derives from the analysis carried out using the canvas, the visual connection between both elements could be stronger, enhancing their alignment and even fostering iteration between them.

- The visual map effectively provides the reader with a quick overview of the initiative and facilitates comparisons between different initiatives, and a well-defined structure. This allows for comparison between different initiatives. However, due to its limited capacity for information, its value diminishes when viewed independently from the descriptive paragraphs in the book.

All in all, the CVF method and its associated tools undeniably hold value for analyzing CIs. Nonetheless Numerous potential methods for enhancing value have been identified, including considering time as a variable, adapting several terms used in the CVF to align with the Argentine context, increasing the utilization of graphic elements to reduce text content, and prioritizing certain elements or characteristics over others.

In the upcoming chapter, the design phase is depicted, building upon the insights gained in this chapter to shape the CVF into an effective support tool for designers engaged with CIs in Argentina. The valuable insights collected in Chapter 4 will serve as the primary input for defining the design requirements in the subsequent phase.

Chapter 5:

REDESIGNING THE CVF

Chapters 2, 3 and 4 outlined the first phase of this project: Research for design. That phase was dedicated to researching and comprehending the main concepts I am working with, understanding the context, selecting the initiatives, and delving deeply into the current CVF method and the tools. In this chapter, the learning collected from that phase will be applied to re-designing the CVF to fit the context of this project.
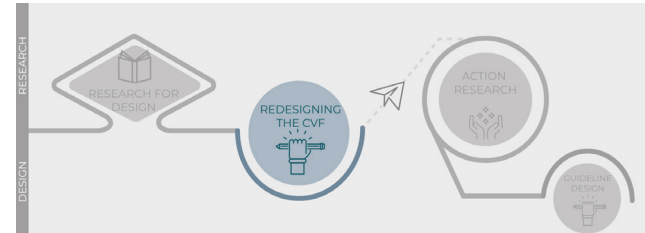

Figure 28: Graphic representation of phase Redesigning the CVF in relation to the entire process.

Chapter 5 starts with a brief description of the design process and it is followed by a characterization of the outcome: the *Circular Reflection Toolkit* and the *Circular Value Map*.

5.1 Design process

The process of redesigning the CVF tools to apply the method in Argentina can be summarized in three main phases: first Conceptualization, second Development and third Detailing. In order to complement these three and validate its outcome, expert designers are consulted and a pilot session with an initiative called Biblioteca Popular is held, as depicted on figure 29.

This design process is guided by different sources ranging from literature on boundary objects (Franco-Torres et al., 2020), experts interviews, my personal experience as a junior design researcher using the Design for Happiness© methodology and the insights derived from the critical analysis and benchmark research (in chapter 4).

Because it is critical for this project and pertinent to the context to maintain a participatory approach, both the members of the initiative and the facilitator of the session are considered significant users in this design process. You can find detailed descriptions of these users in Appendix C, Section User Characterization.

Keeping this consideration in mind numerous design requirements are established including the learning derived from the Research for Design phase, as conditioners for this process. A thorough table of these can be found in Appendix C, Requirements Definition. Following these, the content of the layers as well as the overall structure of the CVF is redesigned.
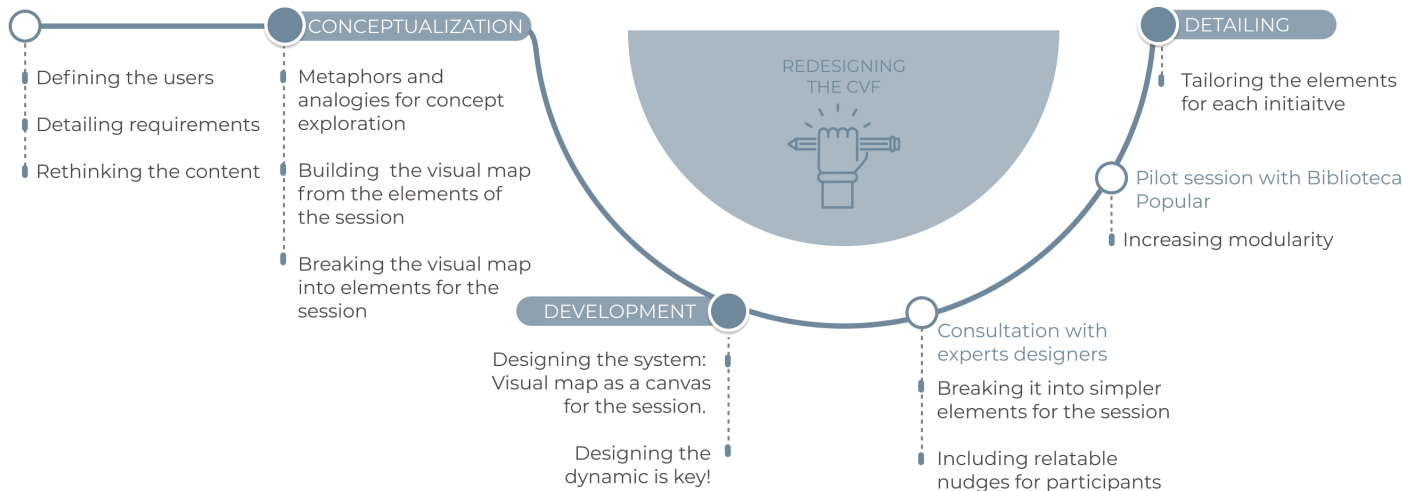

CONCEPTUALIZATION
- Defining the users
- Detailing requirements
- Rethinking the content
- Metaphors and analogies for concept exploration
- Building the visual map from the elements of the session
- Breaking the visual map into elements for the session

REDESIGNING THE CVF

DETAILING
- Tailoring the elements for each initiaitve
- Pilot session with Biblioteca Popular
- Increasing modularity

DEVELOPMENT
- Designing the system: Visual map as a canvas for the session.
- Designing the dynamic is key!

- Consultation with experts designers
- Breaking it into simpler elements for the session
- Including relatable nudges for participants

Figure 29: Graphic representation of the main phases of the design phase to redesign the CVF

A system of two main components is the outcome of this design phase: on one hand, a toolkit containing the elements to be used during a collaborative session with the initiatives, called *Circular Reflection toolkit* (Figure 30); on the other hand, a structure to construct a visual map, called *Circular Value map* (Figure 31) to debrief the session and as a deliverable for the community. For a detailed description of the entire design process, please refer to Appendix C.
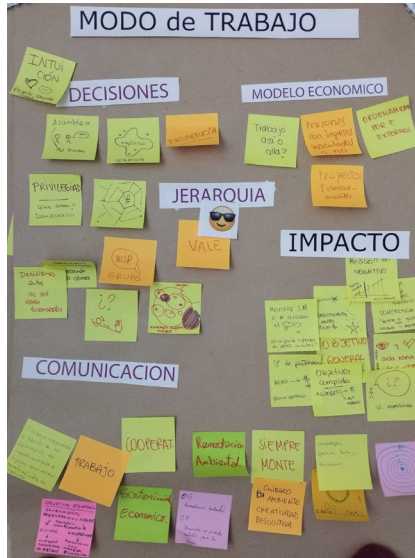

Figure 30: Image the Circular Reflection toolkit (CR toolkit) in use*

This designed system aims to aid the facilitator and the initiative members during the session to collaboratively analyze the initiative as a physical support for the conversations.

It is worth mentioning that since these elements are developed to support the facilitator while hosting a reflective session, the constituting

parts (physical and theoretical ones) are meant to be used as guides, not rules or strict steps to follow. That is why finding the right balance between leaving room for modifications and customization while maintaining a structured approach to ensure alignment was one of the biggest challenges in the design process.

This system of tools is designed following the three stages of the method

Figure 31: Image of the Circular Value Map (CV map) in use*

introduced in the previous chapter: preparation, collaborative session and debrief. On figure 32, those three stages are depicted with a brief description of the main activities to be performed in each specifying the use of the new version of the CVF.
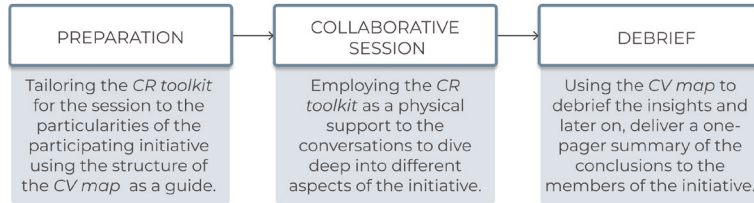
*Photograph taken by the author

This system of tools is designed following the three stages of the method introduced in the previous chapter: *preparation, collaborative session* and *debrief*. On figure 32, those three stages are depicted with a brief description of the main activities to be performed in each specifying the use of the new version of the CVF.

Regarding the content, the titles of these new layers are: *Members* (in Spanish: "Integrantes"), *Way of working* (in Spanish: "Modo de trabajo"), *Resources* (in Spanish: "Recursos"), *Collaborations/Associations* (in Spanish: "Colaboraciones o asociaciones"), and *impact* (in Spanish: "Impacto"). As depicted on table 1, the elements within each layer are also reframed. It is relevant to emphasize that, in order to maintain precision in the terminology used, careful selection of wording is carried out in Spanish. However, for the purposes of this report, the closest English translation is presented.

In the upcoming section, each element of this system will be explained, starting with the *CR toolkit* and finishing with the *CV map.*

Figure 32: Representation of the main phases of the CVF method with the corresponding activities using the designed tools.

LAYER/ THEME	MEMBERS (Integrantes)	WAY OF WORKING (Modo de trabajo)	RESOURCES (Recursos)	COLLABORATIONS/ ASOCIATIONS (Colaboraciones)	IMPACT (Impacto)
TOPIC	• Motivations • Pasion • Personal ambitions • Other initiatives of which she is part. • Activities outside of this/ Family. • Principles/ values/ mindset • Knowledge/wisdom/ skills/ experience	• Activities/rutine/mode of action • Finantial support/ business model • Hierarchy/ organization/ roles • responsibilities • Outsourced services	• Infreatructure/buildings • Objects/ elements/ tools • Material developments	• Communities with similar causes • Communities working for opposing causes • Communities in tension • In process- potential • NGOs, Goverment, educational institutions, business, etc.	• Personal level • Community level • Society level • Economic value • Social value • Cultural value • Environmental value • Political or participatory value • Aesthetic value • Emotional value

Table 1: Redefined themes and topics to be approached with the CVF method.

5.2 Design outcome: the CR toolkit

Given that this toolkit is intended to facilitate reflective and critical discussions among the members of the initiative regarding specific aspects of their community and project, the chosen name for it is: *Circular Reflection Toolkit (CR toolkit).*

The *CR toolkit)* is composed of two primary categories of elements: graphic and stationary materials, all of which are intended to be easily accessible in Argentina. As a result, the stationary materials have intentionally been chosen to be quite generic, ensuring their accessibility in all regions of the country. Meanwhile, the graphic materials can be easily printed or even created by hand.

This latter group comprises tiles featuring the titles of the themes to be analyzed *(Theme Titles)* and triggers for the specific topics to be addressed within them *(Topic Triggers).* Figure 33 illustrates these two groups with the corresponding components. These elements are intended to be adaptable to each initiative based on what the members are familiar with. The goal is to make them as relatable and engaging as possible. Therefore, the language, wording, and graphics may vary accordingly. Especially in the case of *Topic Triggers*, incomplete sentences or specific questions are utilized as prompts for the initiative's members. These prompts are designed not only to stimulate their participation but also to encourage them to provide specific and detailed responses (Sanders & Jan Stappers, 2019).

The modularity of this toolkit serves not only to enhance its accessibility in terms of materials but also cognitively. In this regard, modularity empowers the facilitator to introduce one theme and topic at a time, with ample flexibility for on-the-spot adjustments. This includes the ability to modify the order in which they are approached and even skip certain topics if necessary.
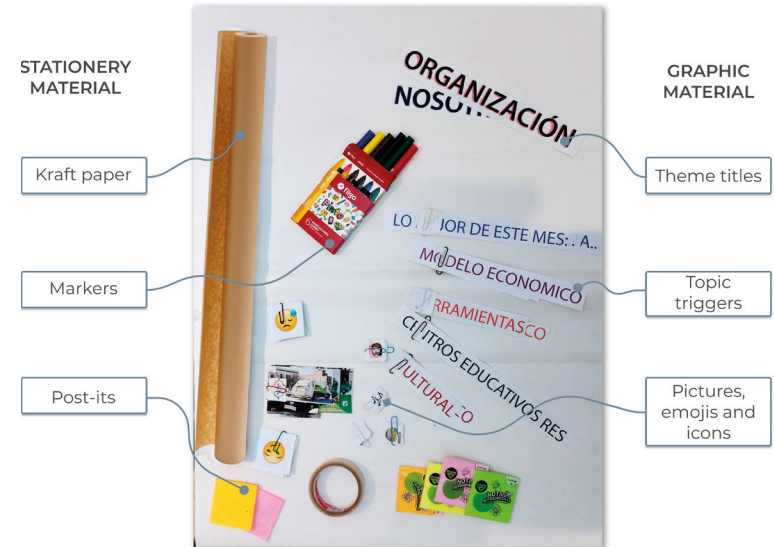

Figure 33: Image of the components of the toolkit

For a detailed visualization of the *CR toolkit*, please refer to the document *CVF tools: CR toolkit and CV map* located as a separate file.

5.3 Design outcome: the CV map

The name of this tool, the *Circular Value Map (CV Map)*, is inspired by the one used by the CC Foundation for their field map. It is chosen to reflect both the shape of this new version and its association with Circular Economy.

The primary purpose of this visual map is to compile all the insights gathered with the *CR toolkit* during the collaborative session onto a single page as a deliverable for the community. To achieve this, this design outcome provides a structure that serves as a guide for the facilitator of the session to debrief. This aspect implies a very challenging balance because the map should guide the user on what insights to include and how to express them while allowing enough flexibility to tailor them to the unique aspects of each case. Figure 34 presents the structure of

the CV map, providing specific insights into the distribution of various elements that compose it.

The main sections of the map correspond to those overarching themes that are discussed during the session and presented in the toolkit as *Theme Titles: Members, Way of working, Resources, Collaborations/Associations and impact.* The general distribution of these sections is based on their relevance and the relation between the themes. In practice, all these sections overlap so the borders are not strongly defined and insights might be part of more than one section. However, for clarity purposes they are kept as separate sections.

Furthermore, the color scheme exposed here is provided solely as a reference, allowing users to adapt it to the initiative's characteristic colors. For a detailed visualization of the *CV map*, please refer to the document *CVF tools: CR toolkit and CV map* located as a separate file.
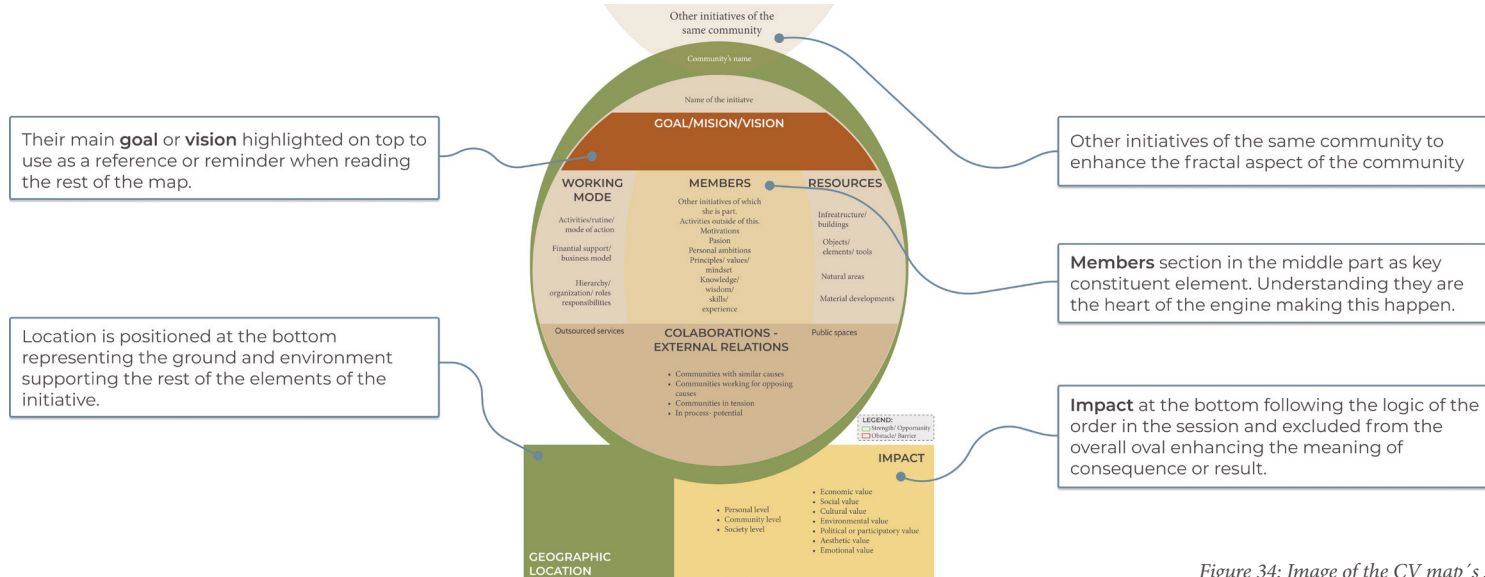

Their main **goal** or **vision** highlighted on top to use as a reference or reminder when reading the rest of the map.

Location is positioned at the bottom representing the ground and environment supporting the rest of the elements of the initiative.

Other initiatives of the same community to enhance the fractal aspect of the community

Members section in the middle part as key constituent element. Understanding they are the heart of the engine making this happen.

Impact at the bottom following the logic of the order in the session and excluded from the overall oval enhancing the meaning of consequence or result.

Figure 34: Image of the CV map´s structure

5.4 Recapitulation

All in all, during the design phase described in this chapter, the tools of the CVF method developed by Els Leclercq and Mo Smit were reformulated into the *Circular Reflection toolkit* and the *Circular Value map*. These elements were designed to apply the CVF method in Argentina in the interaction with the ReUSAR and Siempre Monte initiatives during the Action Research phase.

The goal of employing the *CR Toolkit* and *the Circular value Map* is to collect empirical insights to inform research question 1 and 2. A session with each initiative will take place and learnings around their challenges and opportunities to employ the CVF method will be collected. Furthermore, these experiences will serve as crucial evaluation moments for each component of the toolkit and the visual map. Therefore, insights on how to enhance their effectiveness will also be gathered.

In the following chapter, the Action Research phase is outlined.

Chapter 6:

EXPERIENCES ON THE FIELD

In the previous chapters, all the preparations for performing the Action Research process have been completed. Now that the CVF has been adapted to fit the Argentinean context, it can be put into practice.

This chapter demonstrates the practical application of the new tools in both Circular Initiatives through an Action Research (AR) process conducted in Córdoba, Argentina. As mentioned in the first chapter, the chosen methodology, AR, aims to provide insights for this academic project while making a positive impact within the initiatives during the collaboration with them.

Chapter 6 begins by introducing the action plan developed as a guide for my interventions, followed by a general overview of the experiences, the insights collected about each initiative, and it concludes with a reflection on the *CR toolkit* and *CV map*.
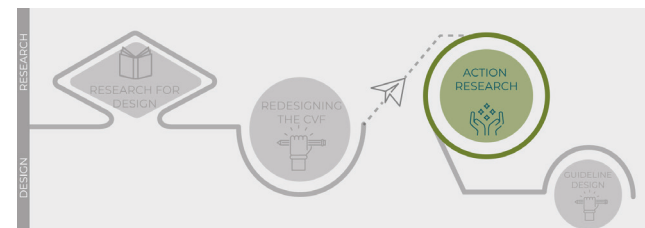

Figure 35: Graphic representation of the phase Action research in relation to the entire process.

The specific objective of the interventions within this phase is twofold. On one hand, it involves the utilization of the *CR toolkit* and *CV map* to evaluate and enhance them while addressing research questions 1 and 2. On the other hand, it seeks to gather new experiences for the Circular Community foundation. These experiences are meant to create knowledge cross-pollination by bringing two aspects the researchers have not explored yet: testing the method with local citizens in person and, more specifically, with citizens from Latin America (Leclercq & Smit, 2023b).

6.1 Action plan

In order to carry out the third phase of the project, the Action Research phase, an action plan is developed with two primary objectives in mind. Firstly, it serves as a crucial tool when engaging with the contact person of each initiative, ensuring clear communication of my goals and expectations. Secondly, this plan serves as a general guide for myself as a participant researcher. It is not intended to be a rigid step-by-step recipe, but rather it provides sufficient structure to keep me aligned with the goals of my intervention. The flexibility for on-the-spot adaptation is essential because the chosen research methodologies, (informal dialogs, sensory ethnography and *Sentipensar*), cannot be meticulously planned; in fact, such rigidity would contradict their fundamental nature.

The process of defining this plan requires numerous iterations based on insights collected from theory, consultations with Argentinean social innovators as well as expert designers, conversations with members of the initiatives and my own previous experience in the field. All the iterations made during this process can be found in Appendix D.

The four steps of AR explained by Hopkins (1985)-plan, action, reflect and collect- are adapted to suit the specific needs of this project, as mentioned in the Research Methodologies section. These phases are renamed as Immerse, Perform, Visualize, and Reflect. This cycle is executed once for each initiative, commencing with ReUSAR and subsequently with SM, with the order determined by their preference and availability as exposed on figure 36.
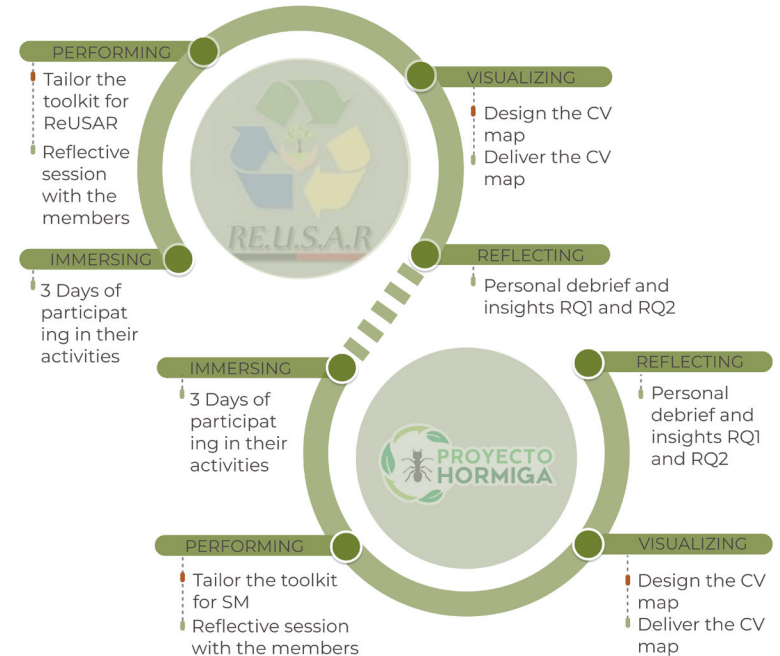

Figure 36: Representation of the cycles of the action plan with each initiative during the AR phase highlighting the main 4 steps.

On figure 38 on the following pages, a detailed visualization of the plan is presented. In order to maintain a clear structure with ample room for flexibility, the plan includes the main activities that need to be performed (the WHAT), along with the primary and most relevant requi-

rements, such as participants and timing (the WHO and WHEN). The goals of each stage (the WHY) are also clearly defined in the bottom row to ensure that, regardless of any changes or unexpected developments in the activity, alignment with the objectives is never lost.

As represented with the flags at the top of the figure, the action plan contains activities to be performed in person in Argentina and some activities to be performed online from the Netherlands in order to make the best out of the resources available for this project.

Among all the activities within this plan, the participatory session in which the CVF will be applied with the *CR toolkit,* named as *Perform* in the action plan, needs to be carefully planned with similar parameters to those employed for the action plan. This involves creating a guiding structure to ensure alignment with the goals while allowing for a significant degree of flexibility for modifications in the moment. The main aspects to be defined for the session include the location, the approach to topics (mode, timing, order, etc.), and the overall dynamics of the session. For further details about each of these aspects, please refer to Appendix D.

The main characteristics of the session are defined based on theoretical sources on in-depth interviews (Patton, 2002) (Sanders & Stappers, 2012), creative facilitation (Heijne & van der Meer, 2019), and the Design For Happiness® methodology in addition to my experience in all these areas, and the learning from the performed benchmark research (explained in chapter 4). Moreover, the findings obtained from the professional advice of expert designers during the design phase and a pilot session performed with the toolkit are also insightful sources for this.

WHEN	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6

WHO	Expert designer + one/two members of the initiaitve	Expert designer + as many members of the initiative as possible	Expert designer + 5 or 6 memebrs of the initiaitve	Expert designer	Expert designer + one/two members of the initiative

WHAT

PREPARE | **IMMERSE** | **PERFORM** | **VISUALIZE** | **REFLECT**

PREPARE	IMMERSE	PERFORM	VISUALIZE	REFLECT
Desktop research about the initiative	Unplanned interaction with after action reflection.	Group dynamic	Visual Map building.	Collaborativelly analyse results
Intake meeting: First interview with one/ two members of the community to get to know them, and introduce myself.	Participating in their daily activities capturing and analyzing sensory experiences	Using the developed toolkit in a collaborative session to reflect on the current status of the initiative	Debriefing the insights collected on the visual map	Looking back on my participation with them

Reflecting on the elemetns of the toolbox on the developed visual map |

WHY

Understand the context	Deconstruct myself.	Practical application of the toolkit: gain insights on its usability and detect points of improvement.	Make the insights shareable and engaging for the community	Wrap up, give closure to my intervention for the initiaitve's members.
Meet contact person (project champion)	Learn more about them discovering their culture, identity, and power dynamics (Pink, 2009) among them and with me.

Creating trust ensuring natural interactions (Patton, 2002).

Sensitizing for the next step | Helping them uncover new perspectives of their own initiaitve or discuss about usually unspoken aspects of it. | Draw conclusions about the initiaitve on each layer of the CVF | Draw conclusions on the interventions, the AR phase and the tools |

Figure 38: Detailed representation of the action plan for each cycle of the AR phase.

6.2 Practical field experience.

As introduced by the action plan, the Action Research phase entails several days of interaction with both initiatives. During these days, informal dialogs, sensory ethnography and individual and group reflections take place as mentioned in the *Research Methodologies* section of this report.

These interactions are documented daily in a journal, shedding light on early insights related to the two research questions. These early insights are not intended to provide comprehensive answers but rather to gather findings that will later contribute to drawing conclusions. This was accomplished by emphasizing popular knowledge and emotional dimen-
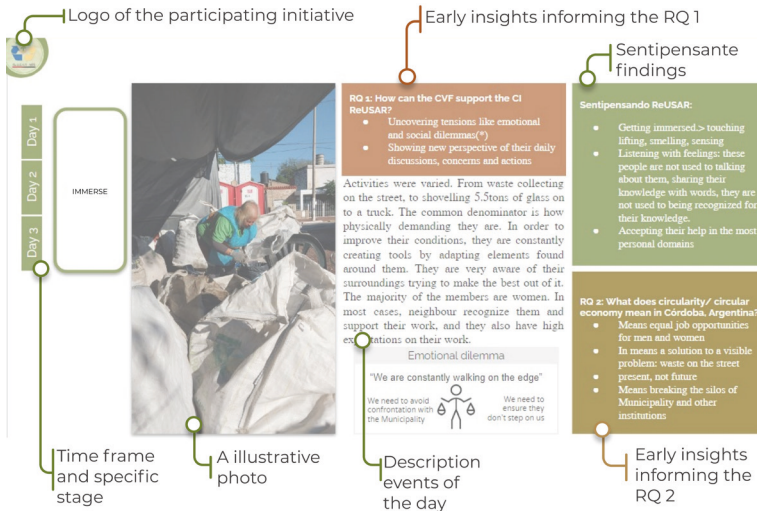
Figure 39: representation of the day-by-day documentation of these experiences, identifying its main sections.

sions, aligning with the concept of *Sentipensar,* which aims to bridge the traditional dichotomy between these forms of knowledge and academic knowledge. Specific attention is given to both aspects for each stage of the previously outlined action plan, and they are visually distinguished. This differentiation serves not only for communication purposes but also to inform my own process and enhance my deconstruction by understanding the tensions and influences between them.

Figure 39 provides an example of how these experiences were documented day by day, and the complete joournalig activity can be found in Appendix D. It is worth emphasizing that although some pictures are included, most of the images were captured by community members. I refrained from taking numerous photos to avoid creating an unnatural or uncomfortable situation for the community during their daily activities, which would be contrary to the immersive and decolonial approach of this project.

6.3 Insights of ReUSAR and Siempre Monte

As a recapitulation of the early insights collected about both initiatives while employing the *CR toolkit* and *the CV Map,* the results are exposed following the format in which Circular Community Foundation shares best practices. Figure 40 and 41 expose the insights for ReuSAR and SM correspondingly. This way, the experiences and knowledge obtained in this project can be shared by the CC Foundation on their website and compared to their other case studies. A moredetailed description of all the learnings employed to fill them in can be found in Appendix D.

Re.U.S.A.R- Alta Gracia- Córdoba, Argentina

Geographic location: Alta Gracia, Córdoba, Argentina.

ReUSAR is a waste collector cooperative founded in 2021 in Alta Gracia, Córdoba, in response to environmental concerns and limited employment opportunities. Their name, an acronym for "Urban Recyclers for the Environmental Health of the Region," reflects their mission. They collect, categorize, and sell recyclable materials from five city neighborhoods, funding their operations through client fees and a monthly Municipality subsidy.

Members:
Most join for additional income, particularly women, as men have better-paid options like construction work. Despite occasional disagreements, a strong sense of community prevails, leading to the development of unspoken rules that shape the group's operation over time.

Working mode:
Despite self-identifying as a horizontal organization, I observed hierarchical elements in their decision-making and group structure. While they employ communication and decision-making methods that lean towards democracy and inclusivity, there are varying perceptions of the decision-making process's effectiveness. Most of the waste collectors feela an behave more like employees than equal members, viewing their involvement as a necessary job for survival.

Collaborations and associations:
They regularly collaborate with external stakeholders like clients, civil servants, and neighbors. This openness is influenced by the country's cultural context and economic challenges, fostering empathy for those around them. Most of their tensions revolve around their dependence on the Municipality and payment delays.

Resources
Machines and infrastructure play a pivotal role in their activities, serving as both assets and potential challenges. While these components are essential for their operations, they are supplied by the Municipality, creating a significant dependency. The political implications of ReUSAR's activities often lead to resource shortages or subpar performance. Nevertheless, their resourceful mindset allows them to adapt elements they encounter during street collections to bridge resource gaps, a practice ingrained in their lifestyle.l.
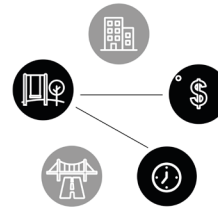
Impact
their organization generates value across a wide range of areas, including cultural, economic, political, social, and environmental, affecting various levels from the city to neighborhoods and individuals. Interestingly, when discussing the concept of a circular economy, they tend to focus on the environmental impact they create, while their contribution to social and cultural aspects play a significant role in transitioning to a more sustainable system.
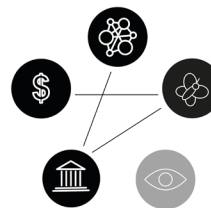
Figure 40: Findings from the experience with ReUSAR translated to the format employed for best practices by Circular Community Foundation

Siempre Monte- Unquillo- Córdoba, Argentina

Geographic location: Sierras chicas de Córdoba, Argentina.

Siempre Monte is a project within the Proyecto Hormiga community, which has three different initiatives. It focuses on environmental restoration by eradicating the invasive tree species Myoporum laetum (Siempre Verde in Spanish). Their approach involves using this wood to create building blocks, addressing both environmental concerns and the local housing shortage.

Members:
The group comprises experts from diverse disciplines, including architects, urbanists, engineers, biologists, and agroecologists. They self-identify as activists and sustainability champions. This initiative serves as a tangible means for them to enact their vision of a better world. They are all enthusiastic about contributing their knowledge, time, and energy because of their passion for the initiative's cause. However, their actions are often influenced by the subsidies they secure and external factors such as available resources and personal responsibilities.

Working mode:
They operate within a horizontally organized structure with organic working methods. Some members are involved alongside their regular jobs, family responsibilities, and other activities. In contrast, others receive subsidies from government or research institutions, affording them more time and dedication. This leads to notable role and influence disparities in major decision-making, even resulting in some members' departure.

Collaborations and associations:
The Municipality is a pivotal stakeholder, providing infrastructure and resources. Political interests are influential, affecting resource quality and legislation changes. Service providers also impact the initiatives based on their engagement and understanding. Nature is considered almost a stakeholder due to its interaction; it has its interests, timing, and contributions beyond being a contextual factor or resource outlet.

Resources
Economic resources are a major concern, often causing dilemmas and the fear of overshadowing the other initiatves of the group due to sustainability challenges. Time is also a critical resource, with tensions arising from mismatches between market, academic, and natural timelines. A recurring, unanswered question is whether Siempre Verde's wood (Myoporum laetum) should be seen as a resource or an end goal.

Impact
They demonstrated a strong awareness of their significance within the system and the impacts they generate, both current and aspirational. They generate value in multiple areas, particularly in education, the environment, and culture, across various levels, with the personal or individual (micro) and the meso levels being the most prominent. However, effectively communicating these values to all stakeholders can be challenging due to differing interests and languages used.
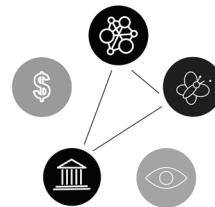
Figure 41: Findings from the experience with Siempre Monte translated to the format employed for best practices by Circular Community Foundation

6.4 Analysis of the CR toolkit and the CV Map

After my experience with each initiative, conclusions were also drawn in relation to the usefulness and usability of the employed *CR toolkit* and the *CV Map* as the redesigned version of the tools developed by Els Leclrcq and Mo Smit.

The following paragraphs present a summary of the main conclusions derived, and a complete analysis of the application of these tools can be found in Appendix D.

It can be concluded that the *CR toolkit* serves as an eye opener for the members of the initiative as it triggers conversations about topics that many times are overlooked. During these conversations, the facilitator's skills play a very important role highly affecting its outcome and the way the community experiences the session.

When it comes to its usability, the modularity that characterizes the toolkit proved to be highly convenient for the facilitator not only while planning the session in order to tailor it to the particularities of the case, but also during the session in order to make decisions on the spot. The modularity is also positive for a paced approach to the complexity of the topics the members of the initiative approach during the session. On a less positive note, the setting the toolkit implies proved to be detrimental for some initiative members who were not really familiar with these materials or workshop-like activities.

Lastly, this kind of intervention proved to require considerable resource investment from the community, being time the most crucial one. A session of approximately 1.5 hours does not seem to be really effective, whereas 2 or 2.5 hours proved sufficient.

When it comes to the *CV map*, the main conclusions regarding its usefulness are that it proved beneficial for me as a researcher in structuring the immersion days and the reflection session with the communities. However, when used as a framework for debriefing the collected insights during those, this map allows such a high level of freedom that it ends up being counterproductive and does not effectively systematize this process. Moreover, the community members highlighted as positive the fact that in one page all the information can be condensed if printed, but it is definitely not a good format as a digital deliverable.

All in all, applying the CVF method with these tools proved to be useful to create a moment of reflection and trigger important conversations among the members of the initiative. It also triggered potential future directions for their project, but not concrete steps or ways of approaching those.

With all the findings collected during this phase of action research, personal reflections as well as consultations with local designers helped me elaborate the insights to inform the two research questions of this project. Those insights are presented in the following chapter.

Chapter 7:
RESULTS

Building upon the experiences and reflections presented in Chapter 6, the subsequent pages delve into a more in-depth analysis of the insights gained while addressing the research questions.

The chapter begins by reflecting on Research Question 2 (RQ2) to initially clarify the concept of Circular Economy before delineating the space for intervention of the CVF. After achieving a clearer understanding of the CE concept, the chapter shifts its focus towards discussing the potential of the CVF in supporting Circular Initiatives in Argentina, casting light on RQ1. This exploration commences with an identification of the challenges faced by these initiatives and concludes by highlighting the key aspects identified as potential areas where the CVF can generate a positive impact.

In order to achieve these results, a group reflection was held with three local designers (one of whom participated during the intervention with Siempre Monte) and an analysis on the wall was performed (Sanders & Jan Stappers, 2019). For further details on these activities, please refer to Appendix E. In the chapter only the conclusions are presented.

7.1 RQ2: CE in Argentina

Derived from the experiences with ReUSAR and Siempre Monte
The main manifestations or meanings Circular Economy have in these communities have been summarized in the following points.

First of all, **CE has very different perceptions**. One of the most striking facts is that CE is perceived in very different ways among some members of the initiatives. The different understanding of CE is not only attributed, as mentioned in the theoretical framework, to the fact that CE can be perceived as an ambiguous term, but also to the way these groups experience it. In both initiatives, the main difference is between the perception of the initiators of the project and the members who work there. In the case of ReUSAR is where this difference was the biggest.

For the initiators of ReUSAR, Circular Economy serves as a means to address unemployment by collecting waste from the streets, while for the other members, it primarily serves as a source of income. To provide a more detailed explanation, ReUSAR was established to confront two pressing challenges following the COVID-19 pandemic: a high unemployment rate and streets overflowing with trash. Therefore, for the initiators and leaders of ReUSAR, CE represents a means to address these dual challenges. In contrast, for most waste collectors, CE equals a job. This means that regardless of the positive impact they create to the environment, the city, and their culture, their primary motivation is to earn an income to meet their basic needs. Consequently, CE, for them, appears to be something contextual. It is a means of earning a living. This is particularly evident among women who encounter difficulties in finding job opportunities with conditions similar to those available to men in other fields. As one participant mentioned, "...for men, it is more convenient to work in the construction industry" (Participant P). Consequently, CE finds itself in direct competition within the job market with roles such as construction work and domestic employment. This often results in a high turnover rate in the initiative primarily driven by

wage considerations.

On top of that, **CE is a way to materialize activism**. Linked to the previous point, for the initiators CE is a way to take action for what they believe in. In their words: "It is a way of militating ideals" (Participant F.) Working in a circular initiative means not only a way to materialize the way they would like the world to be by embracing the values they consider relevant in society, but it is also a political stance. It is a way for the members to express their ideas and spread them with the activities they perform, the groups they collaborate with and those with which they don't, and even their internal organization. Therefore, this creates a very strong sense of belonging for most members. Most of them acknowledge sense belonging as one of the most important gains they obtain from being part of such a group.

It is relevant to highlight that this is not only in relation to working with circularity, but also the fact that they do it through a bottom-up initiative. "It is a way of moving away from complaining and taking action"(Participant S).

Moreover, **CE is a way to frame projects for funding**. As discussed in Chapter 3, Argentina's economy is unstable and weak, making it challenging to achieve economic stability as an individual, a company, or a cooperative. One of the ways these groups have found to navigate this sea of economic and political complications is by seeking funding from the government or research institutions. Due to the increasing interest of these institutions in promoting sustainability across various fields, scholarships and subsidies are offered to groups like ReUSAR and Siempre Monte because they align with the principles of CE.

This means not only using the words Circularity and Circular Economy, but also organizing their activities making sure those values are explicitly embraced and that they create measurable impact around them.

Lastly, **CE is a sustainable way to be competitive in the current system.** Within the current linear system we live in, these groups have found in circular economy a sustainable way to organize their activities, resources and people while remaining competitive. As described in Section 1.3 "Participating Initiatives", both initiatives supplement their income from subsidies by selling products (SM) and recycled materials (ReUSAR). They found in CE a way to show that sustainability can go hand in hand with economic viability.

Besides, in their internal organization and structure they also embrace the value of circularity as a way to organize their activities and resources. They work to create closed-loops of materials, they seek community engagement fostering a sense of shared responsibility, and they embrace transparency as well as accountability in their actions. These are materialized in their efforts to include all voices in decision-making processes, in connecting with their environment and respecting natural timings, and efficiently organizing their activities despite the fact that many members have other jobs and operate within the bustling urban environment.

However, this way of working does not come without challenges. In the next section, the main current struggles of these groups are identified to later understand the potential of the CVF to assist them.

7.2 ReUSAR and SM's main challenges

The most prominent struggle of these initiatives is to be **economically sustainable.** Despite the fact that, as already mentioned, they get an income from subsidies and from marketing certain products, they need to be constantly searching for new sources of income. This is due to the high levels of devaluation in the country, the short term agreements that most subsidies offer and the lack of a market willing to pay the extra cost sustainability today implies in the country (as explained in section 3.2

CE in Argentina).

To address this challenge, they continuously search for subsidies, clients, and alternative income sources, resulting in two primary outcomes. Firstly, they invest significant amounts of time and energy in these activities, often securing only short-term agreements that serve as temporary solutions. Secondly, the requirements to achieve these temporary solutions are not always aligned with their mission, forcing them to deviate from it.

Another striking challenge they face is around their s**trategic organization.** Translating their ambitious goals into actions and ensuring that their daily actions are aligned with long-term objectives are the primary manifestations of this challenge.

The first aspect is particularly evident in Siempre Monte, whose goal is described as "environmental restoration" (Participant M). They are well aware that it is a very long-term and ambitious objective, and they lack a clear roadmap to achieve it. This, combined with their challenging political and economic context and their remarkable proactivity, leads to a divergence in the scope of their activities, ultimately diluting their impact.

In the case of the alignment between daily actions with long-term goals is mostly perceived in ReUSAR. Being an initiative born from a very urgent need such as waste on the street and unemployment, their current business model of collecting and selling recycled materials could become obsolete if circularity is adopted earlier in the value chain and waste is no further created. Or one could consider that we need waste in our system to prevent all these people from becoming unemployed which would "contribute to locking-in unsustainable material systems" as Velenturf & Purnell (2021) put it.

Lastly, these initiatives also struggle with **communication**. Understan-

ding what, when and how to communicate not only internally but also with external stakeholders proved to be a challenge for ReUSAR as well as for Siempre Monte.

When it comes to internal communication, both groups showed great effort in including all the voices in the group. However, in the case of ReUSAR for example, the participatory session held with them proved that the means they are currently employing for this (assemblies and WhatsApp groups) present several complications for some members. For example, one of them expressed that discussing certain private topics in front of everyone makes her uncomfortable regardless of her appreciating the transparency they aim for. This not only has personal consequences but also hinders the sought-after democracy of the group. "I don't always want to share with the entire group that I'm absent because I have to get a gynecological ultrasound." (Participant B.). In the case of Siempre Monte, their main struggle with internal communication also revolves around selecting the best channels and mostly being able to make democratic decisions in a coherent time frame for the project. As one of the participants mentioned when describing the way they make decisions: " it is so organic that it sometimes composts." (Participant M)

In terms of external communication, the primary challenges they encounter involve individual dependency within certain external relationships and the diverse languages or interests among stakeholders. The first issue causes the loss of connections if the contact person within the initiative or the stakeholder departs. The latter challenge is primarily based on how these initiatives communicate their impact. Since they create a lot of value in aspects that are difficult to measure quantitatively, they often lose credibility in the eyes of many companies and governmental institutions that primarily operate based on numbers. "With government institutions, we have to put the $ sign in any conversation for them to listen to us." (Participant F.)

Lastly, it is important to highlight that during this process, it was not only uncovered that these are their main barriers to thrive, but also, and most importantly, the lack of awareness of the initiative members around those. This is mostly caused by the lack of conversations around specific topics inherent to the organization. This is because, on the one hand, the consequences are subtle but still profound, often getting hidden behind other discussions. On the other hand, their daily activities do not allow them to invest time in reflecting, and it is not always possible for them as internal members to create the conditions for those conversations to happen.

These main challenges and the clear understanding of Ce in Argentina, in addition to the experiential learnings collected during this project led to the following conclusions around RQ1 (How can the CVF support the CIs ReUSAR and Siempre Monte?).

7.3 RQ1: CVF's potential to support ReUSAR and SM

The first challenge mentioned in the previous section, Economic Unsustainability, could not be effectively addressed with the CVF due to its complexity and its far-reaching implications that extend well beyond the initiative and its immediate surroundings. However, the application of the CVF method alongside the *CR toolkit* has proven to be effective in addressing the other two challenges: Strategic Organization and Communication, **by creating awareness and identifying potential future directions** for addressing these challenges.

All in all, the CVF can support the CIs ReUSAR and Siempre Monte by **creating the space and setting the conditions for certain conversations to happen.** Like one of the participants mentioned: "As a learning experience, creating a space for conscious listening and reflecting must be a priority."(Participant S.) Many unspoken issues often act as substantial barriers to the initiatives' success due to the challenges associated with bringing them into discussion. The participatory mode in which

this method was applied during this project thanks to the *CR toolkit* and the *CV map* proved valuable to tackle this thanks to three main aspects.

Firstly, making the **complexity of the initiative accessible to all members.** This is achieved by breaking up the various components, relationships and topics in a way in which members can engage with them at their own pace without losing sight of the overall complexity of the initiative.

Secondly, facilitating the initiation of essential conversations, addressing issues that are often subtle and less visible than their daily concerns. This involves **triggering reflections** beyond their constant focus on financial matters. This entails not only making certain or assumed topics explicit, but also allocating time, space and resources for these discussions to occur.

Thirdly, casting light on **potential future directions** to tackle the encountered challenges. This entails supporting them not only to become conscious about their issues, but also contributing to their future actions by nudging actions to address them.

In this setting, the *CV Map* proved to serve as a guide to plan and also to debrief the session for the facilitator.

From the community perspective, it showed some potential to **trigger concrete actions for the future.** This is due to the fact that it condenses a lot of valuable information on one page only, allowing for a systemic understanding of the initiative. Additionally, members found the hierarchy of elements, such as the highlighted pain points or bliss points, valuable as concrete starting points for further improving their initiative. Given that this aspect remains inconclusive in this project, additional research and recommendations for further development can be found in section 9.4.1 *Suggestions for further development of the design outcome*. For more details about the reflections on the *CR toolkit* and

CV map with each initiative, please refer to Appendix D.

7.4 Conclusions

The aforementioned contributions of the CVF to the participating initiatives are not only valuable based on the empirical experience gained in this project but are also aligned with two of the three conditions needed for niches to thrive, as outlined by Wolfram (2018).

One of these conditions is the need for members to share expectations regarding the initiative. This aspect aligns with the uncovered challenge faced by the CIs within their strategic organization. The CVF has proven valuable in supporting them by first raising awareness of internal misalignments and then creating the space and dedicating the time to address them.

Another condition mentioned by the authors is the existence of internal and external networking, which is highly connected to the communication struggles unveiled within and around the initiative community. The CVF method proved valuable in making them aware of the pain points faced by the members in this realm. Moreover, the participatory session in which it is applied with the CR toolkit creates in itself a very specific, but flexible communication channel (the *WHEN*) to reflect (the *HOW*) upon very concrete topics (the *WHAT*).

Figure 42, on the folllowing page, graphically summarizes these connections highlighting those in which the CVF has proven to be valuable.
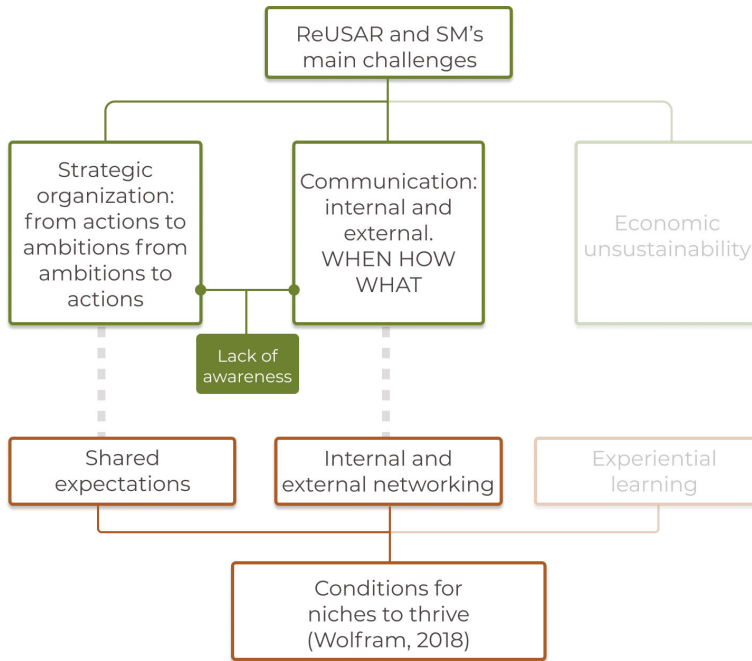
Figure 42: Diagram summarizing the correspondence between the primary empirical and the theoretical findings informing RQ1.

On top of that, the initiatives' comprehension of and approaches to CE (RQ2) influence and are influenced by their actions and strategic organization (RQ1).

To start with, for these initiatives, economic sustainability is a central aspect of their CE approach. They view CE as a means to effectively organize resources within the current market and frame their projects accordingly to secure funding. This perspective significantly impacts their strategic organization in two distinct ways.

Firstly, it may lead to a deviation from their original motivations. The requirements to obtain funding often do not perfectly align with the initiatives' initial intentions. While their core motivation remains intact, the necessity for funding can sometimes push them to adjust their activities to meet specific criteria. This adaptation is driven by the recognition that funding is essential for their sustainability.

Conversely, these funding requirements can also positively affect their strategic organization. Many participants noted that funding sources often require a well-defined roadmap with clear actions and objectives. This requirement compels the initiatives to enhance their strategic organization by adopting a more structured approach to their projects, potentially leading them to further strengthen their sustainability efforts as part of the subsidy requirements

Furthermore, their view of CE as a means to materialize activism serves as a unifying factor, fostering both internal and external networking. This perspective brings together initiative members around a common cause and shared values, contributing to a sense of belonging. While this sense of unity can enhance experiential learning within their social environment, it is not guaranteed. Various external factors, including policies, influence this (Wolfram, 2018).

Last but not least, effective communication is a critical element in these initiatives' success and evolution. It plays a pivotal role in shaping their capacity to network, align expectations, and organize internally. However, their commitment to inclusive communication, guided by horizontal organizational principles following circularity values, can sometimes hinder efficiency.

FIgure 43 visually represents these findings, building upon the previously presented figure (42).
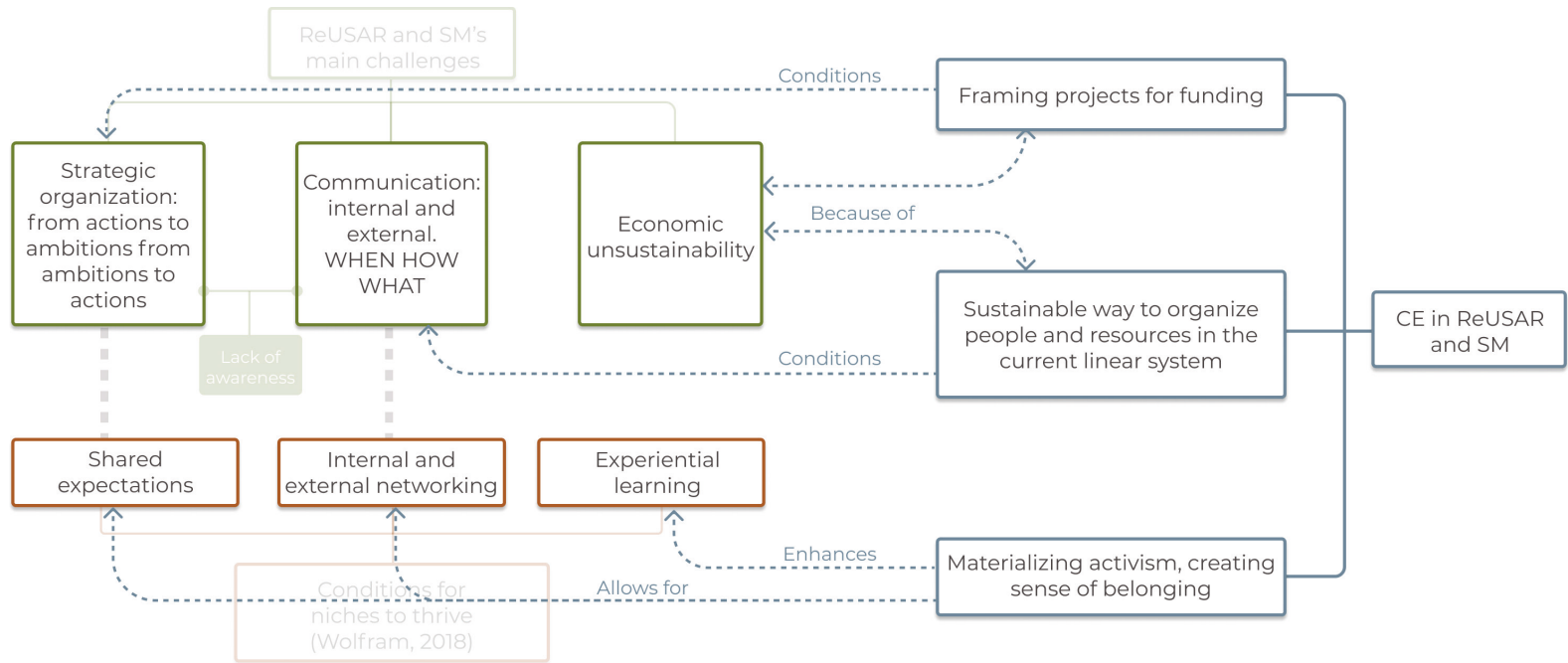
ReUSAR and SM's main challenges

Conditions

Framing projects for funding

Strategic organization: from actions to ambitions from ambitions to actions

Communication: internal and external. WHEN HOW WHAT

Economic unsustainability

Because of

Lack of awareness

Sustainable way to organize people and resources in the current linear system

Conditions

CE in ReUSAR and SM

Shared expectations

Internal and external networking

Experiential learning

Enhances

Materializing activism, creating sense of belonging

Conditions for niches to thrive (Wolfram, 2018)

Allows for

Figure 43: Diagram summarizing the correspondence between the primary findings informing RQ 1 with those informing RQ 2.

Chapter 8:
GUIDELINE DESIGN

Following the presentation of the main research results outlined in the previous chapter, these pages delve into the final design phase of this project. In this phase, all the knowledge and insights gathered during the course of this project are transformed into a practical guideline to enhance their accessibility for other practitioners – the *Tomate un Mate* guideline.
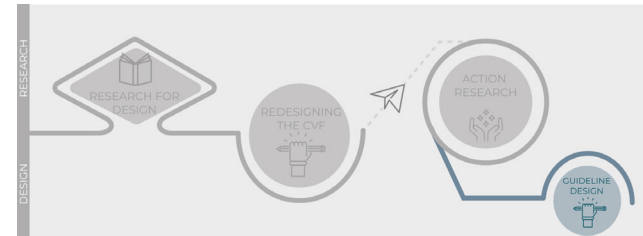
Figure 44: Graphic representation of the phase Guideline Design the last phase of this process.

In this chapter, a detailed description of the guideline is outlined, including an explanation of its sections, content, and the critical considerations that shaped its design. The chapter finished with some concluding remarks about this resource. For an in-depth exploration of the comprehensive design process employed in its development, as well as, for the complete guideline, please refer to Appendix F.

8.1 Description of the guideline

As mentioned in the introduction of the chapter, this guideline is a translation of the insights and experiences collected in this project to make them more actionable for other practitioners. The goal of this element is to empower professionals during their collaboration with circular initiatives in Argentina. It provides support to social innovators in the application of the Circular Value Flower method with the *CR toolkit* and the *CV map* in the context of Argentina. This document has been designed with the assumption that the reader already has knowledge of the CVF method. It is crafted with the aim of ensuring the most appropriate approach when using it and making the tools more accessible.

This guideline is intended for designers, social innovators, or professionals in related fields who wish to apply the CVF method along with the *CR toolkit* and the *CV map* in Argentina. Such an intervention cannot be rigidly structured or confined to a single approach because it greatly depends on the specific initiative, the individuals involved, and the immediate context. Furthermore, presenting a rigid set of instructions to follow would run counter to the intended *sentipensante* and decolonial approach. Therefore, this guideline aims to function as a supportive and guiding resource for expert facilitators applying the CVF.

The title of the guideline is *Tomate Un Mate*, which translates to "Have/Drink a Mate." *Mate* is a highly traditional herbal infusion, widely beloved and emblematic of the local identity. In this case, it is used as the title, harnessing the power of metaphors. The understanding is that sharing a mate symbolizes taking a pause, fostering a warm and cozy atmosphere, and establishing deep connections. This aligns with the objective of applying the CVF with Argentinean CIs, as it serves as a means to encourage them to take a break from their hectic schedules and reflect on their current situation.

"(...) mate is the opposite of television. It prompts conversations when you're with someone and encourages introspection when you're alone."
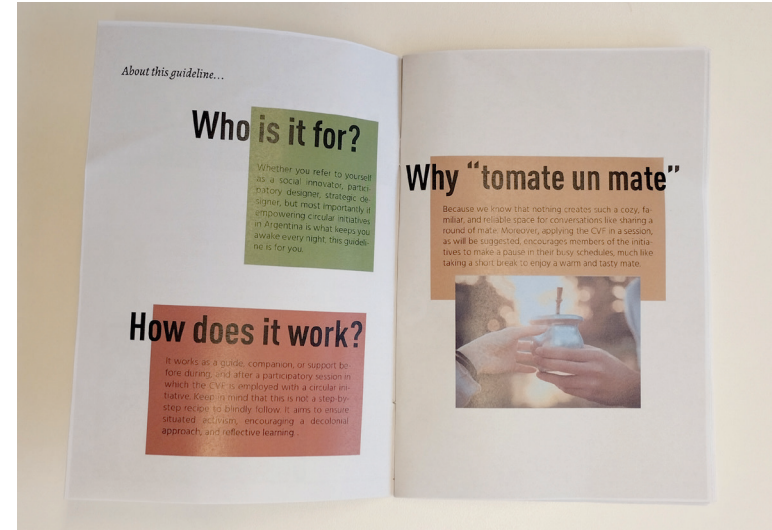
Mate poem. Unknown author.

Figure 45: Illustrative photo of the Tomate un Mate guideline*

8.2 Sections of the guideline

The final piece is divided into three main sections guiding the reader into the topic and providing them with concise and actionable insights around the application of the CVF in Argentina.

This guideline begins with an explanation of its purpose, briefly exp-

*Photograph taken by the author

laining the relevance of leveraging circular initiatives in Argentina, and outlining their main challenges to be assessed with the CVF in the specific context. Subsequently, it provides a description of the intended user, the way this piece should be used and a short explanation of its name.

The following section introduces the main principles or suggested mindsets when working with CIs in Argentina as a facilitator of the CVF method. As mentioned in the previous section, this guideline is not a step by step methodology. Therefore, suggesting overarching principles aims to empower the user with the fundamentals of the most suitable modes of thinking that will enable them to make informed decisions within the context. The four principles introduced here are: *Sentipensar, Harmonious Inclusivity, Balancing and Decolonizing,* and *Flexibility*. Each principle is explained, and then I offer a suggestion based on my experience to make it more tangible and actionable.

The Third and last section of the guideline delves deeper into the participatory and reflective session in which the CVF is employed with the community members. It begins by introducing the three overarching phases required for this process: (1) *Getting ready*, (2) *Performing*, and (3) *Reflecting*. These three phases are built upon the steps outlined in section 4.2 *Analysis of the barriers and opportunities of the CVF-* (Preparation, Collaborative session and Debrief). Following this, the guideline proceeds to detail the *CR toolkit* and the *CV map*, offering instructions on their utilization during these phases. Furthermore, a link is provided for easy access to download these resources, with the assumption that they will be made available as open-source materials on the CC Foundation's website.

and the factors taken into account for its development were explained. This aimed to enhance the accessibility and utility of the research project's finding for fellow practitioners who share interest in the subject.

All in all, the content of this guideline is intended as a means to share the learnings of this research and not necessarily as a final product. That is why the piece has not been formally tested; instead, I conducted peer consultations to ensure its quality and comprehensibility. Within the scope of this project, this guideline is regarded as the initial phase of future development, which includes the goal of making the tools and method accessible for anyone interested in using them in the Global South. This approach could be applied in other areas or the continent because they share similarities with Argentina (Uribe, n.d.), and the analogy of mate could be substituted with any other locally relevant activity.

8.3 Closing remarks

In this chapter the key characteristics of the Tomate un Mate guideline

Chapter 9:
FINAL CONCLUSIONS

This final chapter starts with a recapitulation of the entire project. Following this, the findings regarding the CIs discovered during this research and the tools I employed (*CR toolkit* and *CV map*) are compared to the experiences of the developers of the CVF. Subsequently, it delves into the contributions made by this project to the participating initiatives, the CC Foundation, and academia, and discusses the limitations and opportunities for further development of this topic and the tools. Finally, personal reflections on the project are presented.

9.1 Project recapitulation

Acknowledging the vital role of Argentinean CIs in promoting innovation and transitioning to a more sustainable system, this project aims to leverage circular communities in Argentina to drive systemic change.

Employing the potential of the CVF as a design method and adopting a sentipensante approach, this project is based in Córdoba, Argentina, where two CIs were chosen to be collaborators and participants: *ReUSAR* and *Siempre Monte.*

This process was led by the main research question defined as: How can the CVF support circular initiatives in Argentina? This question was particularized into the following two sub questions: (RQ 1) How can the CVF support the circular initiatives ReUSAR and Siempre Monte project?, and (RQ 2) What does circularity/ circular economy mean in these initiatives? How is it manifested?

In order to answer the research questions a process of action research with the initiatives was performed to not only achieve the academic goal, but also create positive social impact on the communities. As a preparation for this, a thorough theoretical framework was developed and the CVF tools were redesigned to fit the specificities of the context. During the process of AR the CVF method was applied with the redesigned tools, the *Circular Reflection toolkit* and the *Circular Value map*. Insights were derived from these experiences answering both RQs and the main learnings were translated into an actionable outcome: *Tomate un Mate* guideline.

All in all, this project has demonstrated that the CVF can offer support to circular communities in Argentina, enabling them to establish the necessary conditions to thrive. When applied with the *CR toolkit* and the *CV map*, this approach achieves this by increasing awareness of their primary challenges and motivating actions to address them. These tools have proven to be effective in helping communities create a space and establish the conditions necessary for crucial conversations to take place.

9.2 Discussion

In this section, the theoretical findings and the practical experiences with the *Circular Reflection toolkit* and the *Circular Value map* collected during this project are contrasted with those obtained by Els Leclercq and Mo Smit as the developers of the original CVF method.

Beginning with the theoretical insights, this project highlights several instances in which their findings are not only reinforced but also expanded, thus affirming their applicability within Argentina, and some others in which differences in the insights were found.

After outlining those, this section exposes the conclusions drawn comparing the original CVF tools with the tools developed in this graduation project highlighting points of improvements and gaps for further research.

PASSION: A KEY ENABLER, BUT NOT ENOUGH
To begin with, this study reassures the researchers' finding about passion (love + urgency + perseverance) (Leclercq & Smit, 2023a) as a key enabler for initiatives to implement their ambitions apart from the already known ones: knowledge and skills along with financial means and resources. Members find in grassroot initiatives a means to not only voice their concerns and interests, but also to take action towards them. Therefore, regardless of their possibilities to gain something measurable from these, and of all the struggles they find on their way, they give their best to make the initiative thrive. Mainly during critical moments of its existence, the initiatives depend on their passion to remain operational and sustainable.

The issue encountered with this situation is one mostly highlighted in the Siempre Monte project, where irrespectively of their passion, some members were forced to step back from the project because they were not able to sustain themselves economically. "Due to delayed payments or lack of subsidies, colleagues are being left behind along the way." (Participant D.)

Members noted that this situation also led to those who had secured funding for their participation ultimately gaining more influence in crucial decisions related to the initiative's development. This clearly hinders the democracy and inclusiveness of the initiative. "It could end up with decisions being taken only by those who get paid." (Participant D.)

ORIGIN OF THE INITIATIVES: AN URGENCY
In contrast to the findings of the method's creators regarding the inception of all initiatives not necessarily being tied to a problem, this research highlights that ReUSAR is unequivocally the opposite. Passion and activism are there, but what triggered its creation and mostly what keeps it alive is a very urgent need of certain citizens: unemployment. Additionally, the initiative has found a significant opportunity to thrive due to another highly relevant issue in the city, which is waste management. Regardless of what was their starting point, "multiple value creation is a conscious ambition" (Leclercq & Smit, 2023a) as the authors also mentioned within their results.

CONNECTION WITH THEIR IMMEDIATE ENVIRONMENT
A distinct conclusion drawn from the initiatives analyzed in Rotterdam using the CVF is their strong connection to spatial elements and the physical environment (Leclercq & Smit, 2023a). This connection is similarly observed in both participating initiatives in this project, although they appear to have a looser association with the neighborhood. For example, in the case of ReUSAR, their workspace and the neighborhoods they visit are different from the ones in which they reside. On one hand, this could be considered a positive aspect since it fosters connections between neighborhoods from various zones of the city, thus mitigating the risk mentioned by Els Leclercq and Mo Smit of creating isolated communities.

On the other hand, there may be some disadvantages in terms of accountability and the appropriation of the area to make it more livable. This is primarily because the impact they create with their current actions strongly affects the immediate context in which they take place. In contrast, in the case of SM, whose members also come from different places (even neighboring cities), their geographic area of influence is determined by the presence and consequences of the specific tree they are striving to eradicate. Consequently, their potential impact can extend to a broader geographical scope and their current working location is mostly determined by their connection with the other projects of the community they belong to.

TENSION WITH THE MUNICIPALITY
As stated in the foreword of the Circular Communities book by Mariska Joustra and reinforced by the findings of the researchers during their experiences, tension arises from the lack of empathy between governmental institutions and bottom up initiatives in the Netherlands. This tension hinders meaningful collaboration between these parties. One of the most striking points of tension is the difference in the approach and way of working of these two stakeholders (Leclercq & Smit, 2023a). Similarly, the cases here studied proved that the holistic approach of the initiatives finds difficulties when dealing with the compartmentalized structure of the government. "It is often difficult to get funds released because even though we talk to the minister, if the finance minister is not aware of it, everything goes backwards." (Participant S.) This situation is aggravated by the economic and political dependency the participating initiatives have with the local Municipalities.

A BALANCED PLAYING FIELD

As mentioned by Leclercq & Smit (2023a), addressing the intricate socio-technical issues of our time involves a diverse set of stakeholders. It's not solely the responsibility of the government and initiatives to engage in addressing these complex socio-technical challenges. The remaining two stakeholders, completing what is often referred to as the "quadruple helix" (Carayannis & Campbell, 2010), consist of private entities and knowledge institutions. In this project I was not able to concretely answer the question they also had around how power balanced this "new playing field" is (Leclercq & Smit, 2023a). Nevertheless, the principles and guidelines derived from this project can, at the very least, help ensure that if designers become one more player involved, they can maintain a balanced approach.

THE ROLE OF THE DESIGNER

Based on personal and collective reflections involving local designers, it can be deduced that there exists an opportunity for designers working in collaboration with CIS to take on the role of promoting "networking and mutual learning for the development of more holistic, participatory, and systemic problem-solving approaches" (De Koning et al., 2019). Consequently, our role extends beyond supporting initiatives within their own circle and extends to collaborating with members at the regime and landscape levels. Designers are increasingly assuming the role of facilitators or mediators among diverse stakeholders (Leclercq & Smit, 2023a).

9.2.2 Reflections upon the CR toolkit in relation to the CVF

The *Circular Reflection toolkit* and the *Circular Value map*, designed to complement the existing CVF method, serve as valuable additions to the resources currently utilized by the CC Foundation. In this section, an evaluation of the CR toolkit and the CV map in comparison to the original CVF tools is conducted, aiming to comprehend their advanta-ges, limitations, and potential future directions.

GENERAL STRUCTURE

The CR toolkit along with the CV map offer increased flexibility and adaptability, supporting the authors' hypothesis about the need for greater simplicity in the method's approach within specific contexts. The modularity of the toolkit facilitates a more gradual approach to the complexity of these projects, aligning with the developers' goal of creating a "step-by-step approach" (Leclercq & Smit, 2023b). Furthermore, these tools enable real-time adjustments, harnessing the facilitators' sentipensante approach and enhancing participants' engagement and connection to the method.

These tools advance Circular Community Foundation's goal of accessibility and open-source availability by offering simple modular components that can be easily printed or crafted by hand, all while maintaining a structured approach to prevent a loss of focus.

TRIGGERING FUTURE ACTIVITIES

The in-depth and participatory approach employed during the reflection session, facilitated by the toolkit, clearly demonstrated its potential to inspire future activities or interventions. Despite facing limitations in terms of time and resources in this graduation project, leading to the incomplete development of certain activities, participants initiated and expressed interest in additional activities even after my involvement ended. This experience confirms that the method has the potential to aid both initiatives in defining activities to address the uncovered challenges effectively. "There were several subsequent meetings at which objectives were redefined. Not one or two, but three or four" (Participant SB.) However, the specific development of these activities goes beyond the scope of this method which was slightly felt by the communities as an incomplete task or as a hang cliffer. Further details about these conclusions with them can be found in Appendix D "Looking back into the experiences with the tools with ReUSAR and Siempre Monte", and addi-

tional reflections are expressed in the 'Reflections' section of this report.

THE *CR TOOLKIT*
What in the toolkit is denominated ´*Theme Titles*´ corresponds to each layer of the CVF and the ´*Topic Triggers*´ relate to each component of the layer. On the following page, figure 46 presents a graphic representation of each layer with the corresponding title. In most cases, only the wording was adapted with the exception of ´Working Mode´, which is not included in the original CVF. 'Working Mode' (in Spanish: modo de trabajo) was included because it was found that comprehending the hierarchy, communication methods and modes, and decision-making processes within the initiatives significantly impacts their ability to thrive. Primarily, achieving alignment and clarity regarding these elements has demonstrated, in practice and literature, its relevance in ensuring a seamless and effective way of working. Several participants highlighted the value of explicitly addressing many of these aspects, which often evolve quite organically. "they can be in common, but they are not discussed at a specific time and place, which is normal for projects that are so collective in nature (…) in itself, the fact that all those topics came up was more than useful!" (Participant B.)

Another modification within the composing layers of the method is
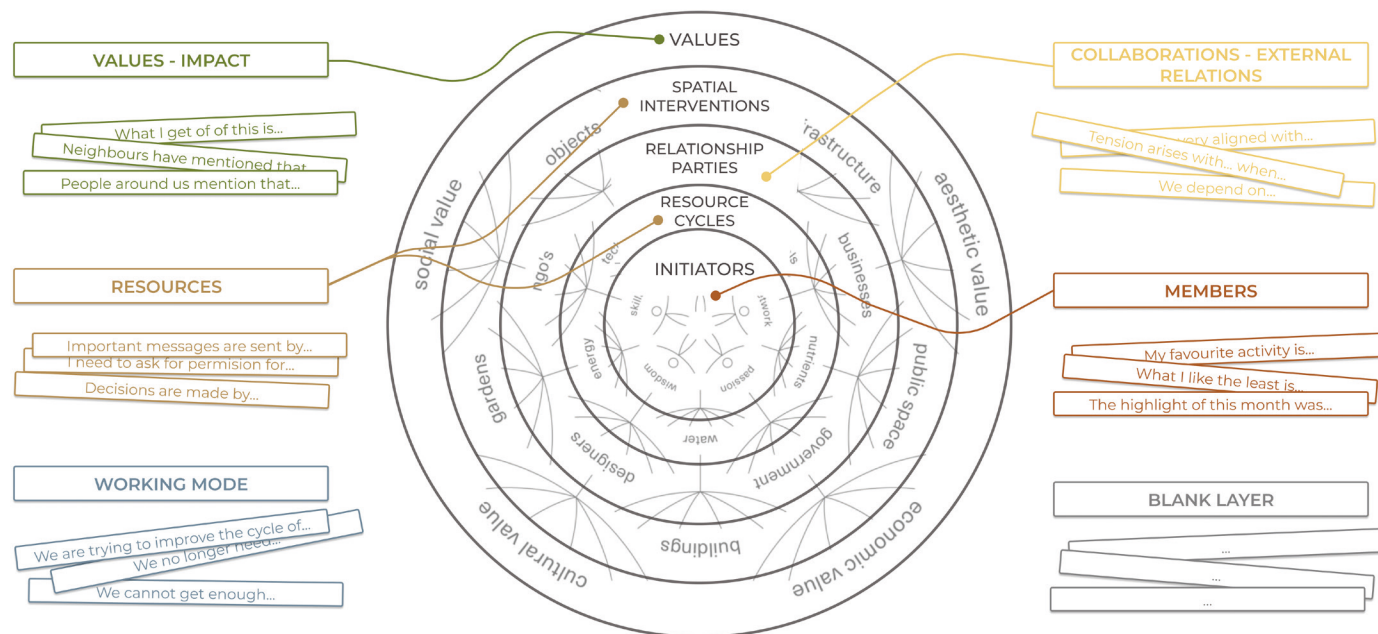
Figure 46: Graphic representation of the correlation between the Theme Titles of the toolkit and the layers of the CVF canvas.

the fusion of ´Spatial Interventions´ and ´Resources´, with the latter remaining as the employed title. The *Topic Triggers* developed provide a more tangible and relatable approach to addressing the main topics to be analyzed within each layer. This is achieved by utilizing specific techniques, such as incomplete sentences and questions about concrete experiences (Sanders & Jan Stappers, 2019), instead of relying solely on words, as in the CVF.

THE CV MAP
As discussed in Chapter 5, during its design careful consideration was given to ensure that this map serves a dual purpose. It is intended to function as a deliverable for the community to reflect upon after the session and as a structure for the facilitator or designer to debrief the insights gathered during the session, ultimately leading to a tangible outcome.

From the members' perspective, one of the strengths observed in the developed CVM is the possibility to make it relatable to them by employing the initiative's distinctive colors on the background, adding photos, and quotes. On top of that, the inclusion of rich qualitative data allows for a detailed understanding of the topics analyzed complemented by icons and dilemmas. Moreover, highlighting points of attention like pain points or barriers, as well as, opportunities or bliss points was highly treasured by the members as a way to focus their attention when reading the map and as an additional value to the more descriptive data. Most of these points were taken as a potential starting point for future actions.

A noticeable distinction between the two maps, as depicted in Figure 47 is the arrangement of the sections. In the case of the new visual map, the 'members' section is positioned in the center, giving it a central and prominent role due to its significance within the initiative. This placement reflects the understanding that they are the primary stakeholders not only in practice, but also they are the ones engaging with this deli-

verable.

When it comes to using the map as a structure for debriefing by the facilitator or designer, there is significant room for improvement. While flexibility is undoubtedly a positive aspect of this map, it currently offers excessive freedom, which hinders the effectiveness of the debriefing and experience comparison process—an undeniable advantage of the original CVF field map (located on the right side in Figure 47).

The use of simple visual elements, such as icons and pictures instead of time-consuming illustrations or renders, is undoubtedly an improvement in this map, but the volume of text has proven to be somewhat overwhelming for some readers. This undermines a valuable aspect of the original Value Flower Field map, which condenses all the information into a simple diagram.
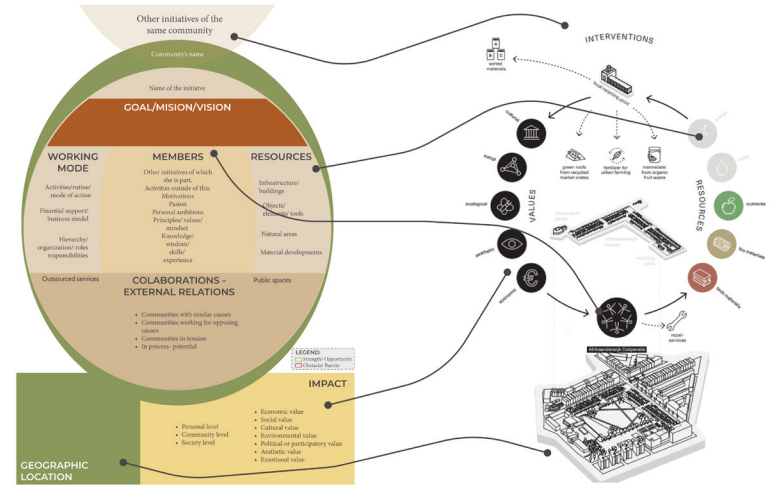

Figure 47: Visual comparison of the Circular Value Flower field map by Els Leclercq and Mo smith to Circular Value map as analogous tools.

9.3 Contributions

The process and outcomes of this project contribute not only to the Circular Community Foundation, which played a pivotal role as a primary stakeholder, but also to the academic world of our discipline, and most importantly to the participating initiatives. The primary contributions can be summarized in the following key points.

To the participating initiatives.

- **Raising awareness** about the significance of maintaining alignment among themselves, ensuring that their actions and goals align with their vision and values, and emphasizing the importance of periodically pausing in their busy schedules to create space for reflection and organization.

- **Identifying unspoken challenges,** missed encounters, and internal tensions that may have been overlooked.

- Siempre Monte acknowledged my contribution to their **empowerment**, recognizing that it went beyond the insightful conversations during our sessions. They appreciated the **resources** I shared with them to define strategies, activities, and roles within the initiative. This engagement sparked new questions, led to meaningful discussions, and provided them with a fresh perspective on their own project.

- On a more practical note (although greatly appreciated by the members), my contributions to ReUSAR involved tasks such as collecting waste from the streets, managing glass, and handling large PET materials. Furthermore, I triggered fresh conversations and activities that injected an element of **enjoyment** into their daily routines, contributing to their **sense of being valued and heard**.

To Circular Communities Foundation

- A **new perspective on the value of their method** as one that can not only help closing new loops but also creating awareness around the relevance of the (mis)alignment of the expectations among members, as one of the required conditions for CIS to thrive (Wolfram, 2018).

- A **toolkit** to materialize their method as an open source and accessible resource that could be added to their website. This not only increases the applicability of the method, but also its accessibility.

- New experiences to their repertoire of best practices on the online platform, and more importantly, integrating **South American experiences.** Enhancing the understanding and defining the potential of this approach in the Global South.

- Learnings obtained from testing the tool with **local citizens** rather than solely with civil servants or academics, thereby providing an in person and **community-centered perspective** (Leclercq & Smit, 2023a).

- A structure for a visual map more focused on the invaluable **qualitative data** collected during the research.

- A guideline which can potentially become the **"real life manual"** (Leclercq & Smit, 2023b) they express as a necessary complement to the method and tools offered as resources on the website.

Academic contribution:

- The theoretical and practical findings contribute to the academic body of knowledge allowing for **cross pollination** between the Global South and the Global North building upon what as Arturo Escobar (2018) calls a "Latin American contribution to the transnational conversation on design (...) at a time when designers are rediscovering people's ability to shape their worlds through relatio-

nal and collaborative tools and solutions."

- Bringing out experiences in **participatory approaches** to better understand how to unlock the potential of circular grass roots initiatives and accelerate the transition, following the conclusions by de Koning et al., (2019).

- Triggering reflections and conversations with Argentinian designers around the potential of our discipline from a **strategic approach.**

- And hopefully to my design colleagues by providing concrete **insights, principles and tools** to leverage our potential to work towards something bigger than us and so overwhelming at times such as the needed systemic transition.

9.4 Limitations and future work

In this section, the main limitations of the project are expressed with suggestions for future research. First, the overall constraints of this project and the derived directions for future research are outlined followed by the main suggestions to further develop the *CR toolkit* and *CV Map.*

This project is intentionally designed to provide in-depth qualitative and context-specific insights, which requires a narrow focus within the time and resource constraints of this graduation project. While this limitation may affect the generalizability of the findings, it is important to note that the similarities among the provinces of the country suggest potential applicability of the project's outcomes in other regions of Argentina. Moreover, there is potential for this approach to be extended to various Latin American countries, given their shared identity and common challenges, as suggested by Uribe (n.d.).

In case the CVF was applied with the developed tools in any new context, it should not be done without research on the specific context to avoid a "copy-paste" or forced adoption of it. This would allow the necessary adaptations to their current context. As the primary focus during its development was on the Spanish language particularly the way it is employed in Argentina, careful translation should be performed even if applied in other Spanish speaking regions. Expanding its applicability to other languages or cultural settings requires thorough consideration and adaptation to ensure its effectiveness and relevance across diverse linguistic and cultural landscapes.

In terms of the long-term impact, it was not possible to analyze it due to the project's timeframe and the loss of contact with ReUSAR after I left the country. Therefore, there remain numerous aspects that could be clarified if it were possible to meet with them in person for at least one more conversation.

Moreover, in one of the collective reflections with local design practitioners, it became evident that the tool also holds value in the business world. One of the participants, who happened to be the Chief Design Officer (CDO) of a startup, proposed the tool's potential implementation within his company to analyze the aspects of circularity they were already unconsciously integrating and identify additional circular values they could readily adopt.

Regarding the guideline, since it was developed to convey the findings of this research, neither the document nor the specific content framing within it has undergone testing or evaluation by designers other than myself. As a result, it should still be considered a prototype that requires further testing and iterations to effectively transform it into a tool for other practitioners. When it comes to its format, it was developed as a physical book and even though it can be accessed as a digital PDF, it could be more accurately developed as a digital one.

In addition to that, this project only superficially addresses the process by which designers would become aware of the existence of these tools and the technicalities related to their implementation within the CC Foundation's website. Further iterations on the onboarding of these elements are needed before they are implemented.

After the experiences with the *CR toolkit* and *the CV map* in Argentina, in addition to the sessions of individual and group reflection, several areas for enhancement were identified. Like in any design process, the potential for continuous improvement is endless, but due to the project's time constraints, I present these findings as valuable prospects for the future. The main ones are elaborated as suggestions in the following section

9.4.1 Suggestions for further development of the design outcome

For the Circular Reflection toolkit:
- Include more focused nudges in the triggering tiles such as: asking for metaphors or an image that represents a certain situation, incomplete charts, experience based questions (case specific) and more.

- Rephrase the title tiles making them more accurate to the subtopics and to the kind of prompts provided: Integrantes> nosotros; colaboraciones> Actores externos, impacto> valores creados.

- Employing kraft paper (or even a coloured page) instead of a blank background to prevent blank page syndrome.

- On top of that, regardless of the undeniable useful input from expert practitioners who provided feedback on the design of the tool, a pilot session in which a designer or social innovator (different from me) would utilize the tool with a (different) circular initiative

would increase the validity and accuracy of the outcome.

For the Circular Value visual Map:
- Stronger visual connection with the toolkit could be an interesting point of development for future iterations to increase even more the relatability for the members.

- Developing a digital version in addition to the printable format to enable digital distribution.

- Enhance accessibility to its content, considering individuals with limited reading skills.

- Expanding upon the hypothesis by Els Leclercq and Mo Smit's (2023b) regarding the map's potential to serve as a boundary object or conversation starter with external stakeholders, this project demonstrated that achieving this would require an extensive research project of similar magnitude due to the inherent complexity and challenges involved. Hence, it was not possible to address this point within the frame of this graduation project.

9.5 Personal Reflections

In this section, I introduce some of the many reflections that this project has triggered for me—both about the project itself and the way I experienced it.

Fortunately, I had the chance to explore areas and methodologies of my own interest allowing me to gain insights into the kind of designer I am but, more importantly, into the kind of designer I aspire to become. Many of those insights are derived from the events which did not go as expected, posing unexpected challenges on my way. This project also made me learn a lot about knowledge I lack and skills I could improve, making me face many of my weak points and flaws.

More specifically, this process reaffirmed my passion for social innovation and enabled me to test concrete approaches within this realm. Needless to say, it reinforced my eagerness to work for and with my hometown, from which I learned much more than I had anticipated. The in-depth analysis of its current situation and its history, along with my personal connection to it, opened my eyes to many unexpected aspects of Argentinean reality, as well as my own ways of thinking and working. Undoubtedly, having lived in the Netherlands for a couple of years before conducting this research allowed me to gain perspective and distance, influencing the way I viewed my homeland.

Particularly, when analyzing the collaboration with the initiatives, I observed that most aspects went smoothly, even if they were different from what I initially expected. However, despite my efforts to be cautious and accountable for any potential consequences (especially negative ones) that this project could have on the involved parties, there was one significant issue that I could not avoid. This concern was raised by one of the participants from Siempre Monte, who expressed that my involvement had created awareness about several tensions within the initiative, shaking things up significantly. However, they were left with a lingering question: "What now?" Despite deriving some actions from my intervention, they expressed the desire for a more concrete roadmap after delving into the pain points and opportunities of the intervention.

I consider this aspect of great importance mainly because I ended up adding a responsibility to them. Creating awareness about the importance of these conversations is undoubtedly also impactful and positive for them. However, if as an external designer that I am, I don´t help them capitalize these findings, all I am doing is adding another concern and responsibility to their already busy minds and hands. This is an additional element that, regardless of its potential positive impact or intention, could ultimately contribute to creating more noise within their inertia Therefore delivering the visual map full of insights was not enough of a closure of our collaboration.

Regarding my intervention with ReUSAR, there was a disconcerting period of silence from their side after my departure. In hindsight, I should have anticipated the need for a concluding meeting before I left. During such a meeting I could have properly introduced the visual map and provided closure to our collaboration especially considering the challenges of connecting online with the members.

On a more personal note, I see reflections of myself throughout this project. For example, I deeply resonate with the initiatives; we all embark on projects with grand intentions, yet we must identify the impact we can realistically achieve with the resources at our disposal (with time being one of the most underestimated yet highly valuable resources). Moreover, the difficulty I observed in them, the struggle to pause and take breaks for reflection, mirrors exactly what I faced most in this process. It almost sounds ironic that I have developed a tool to support others in pausing and reflecting, yet I have encountered so many difficulties in doing so myself. I understand this difficulty as a consequence of my deep personal involvement in the project, among other factors.

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Appendix Overview

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Design outcome overview

The appendix and the design outcome are located in separate documents for better visualization.

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